ZIMBABWE

National Climate Change Learning Strategy



GOVERNMENT OF ZIMBABWE
MINISTRY OF ENVIRONMENT, CLIMATE, TOURISM AND HOSPITALITY INDUSTRY



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unitar
United Nations Institute for Training and Research

UN CC:Learn
The One UN Climate Change Learning Partnership

UNDP

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

Foreword

The impacts of climate change and variability are becoming more evident with increased incidences of droughts, cyclones, floods, hail-storms and heat waves. Climate change is one of the biggest threats facing the global economy with developing countries like Zimbabwe being more vulnerable due to their low adaptive capacities, limited climate change knowledge and awareness compounded by over-reliance on climate sensitive sectors like Agriculture, Water Resources and Forestry. Tackling this climate challenge requires new ways of thinking, new approaches to development and new partnerships across sectors, nations and societies. In 1992, countries endorsed an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for international cooperation to combat climate change. In 2015, the Paris Agreement was endorsed and it builds on the work undertaken under the UNFCCC, chatting a new course of global action to combat climate change. Article 6 of the UNFCCC and Article 12 of the Paris Agreement encourage Parties to the Convention to cooperate in taking measures to enhance climate change education, training, public awareness, public participation and public access to climate change information. The articles seek to have a well informed and enlightened citizenry bearing in mind that "an educated society is an empowered society."

Education is an essential tool of the global climate change agenda. It helps people to understand and respond to climate change, encourages changes in attitudes, behaviours and helps them adapt to climate change-related shocks and trends. It creates a platform to make a transformation to a sustainable future and ensures that everyone has something to learn and to contribute to the climate change agenda. The 2030 Agenda for Sustainable Development, adopted at a United Nations Summit in 2015, came up with 17 Sustainable Development Goals (SDGs) and these contain several related targets which demonstrates that education is key to a green and sustainable future. In particular SDG 13 calls for urgent action to combat climate change and its impacts. One of the ambitious global targets is to improve education, awareness promotion, human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning by 2030.

Zimbabwe's National Climate Change Learning Strategy, developed under the UN CC: Learn Programme's Southern Africa Initiative, will strengthen learning and skills development to address climate change in Zimbabwe. The Strategy will assist in implementing the country's emissions reduction through the Nationally Determined Contribution (NDC), enhance adaptation guided by the National Adaptation Plan (NAP) as well as other relevant policies and plans addressing climate change. It also addresses current gaps in climate change

awareness and learning in both formal and informal learning platforms in order to increase learning opportunities and reach all relevant stakeholders.

The Strategy was developed through a multi-stakeholder consultative process and identified a number of specific actions for the short, medium and long term that are most appropriate to the national context. The Strategy also includes actions that require more strategic planning and institutional transformation aligned with the country's NDC and NAP. The Vision of the Strategy is "A Climate Change Resilient, Literate and Responsive Nation by 2030," and its Mission is "To achieve a climate change resilient nation, guided by science, research, education and communication for decision support."

Implementation of the Strategy from 2020 to 2030 will be coordinated by the Climate Change Management Department (CCMD) in the Ministry of Environment, Climate, Tourism and Hospitality Industry(MECTHI) in partnership with Ministries responsible for Primary and Secondary Education (MoPSE) and Higher and Tertiary Education, Innovation, Science and Technology Development (MHTEISTD). The use of this Strategy is expected to transform learning and skills development in the country towards enhanced climate change mitigation and adaptation actions as the citizenry becomes more informed.

The Government of Zimbabwe expresses its gratitude to the Swiss Agency for Development and Cooperation through the United Nations Institute for Training and Research (UNITAR) for availing the financial support to develop this National Climate Change Learning Strategy. I also thank the United Nations Development Programme (UNDP) for handling the funds from UNITAR in a transparent manner as the project's delivery partner. Lastly, I want to thank the consulting teams who worked hard for the Strategy to be in place as well as members of the UN CC:Learn Project Steering Committee and all those who made it possible for the Strategy to be in place.



Hon. Nqobizitha Mangaliso Ndhlovu

Acknowledgements

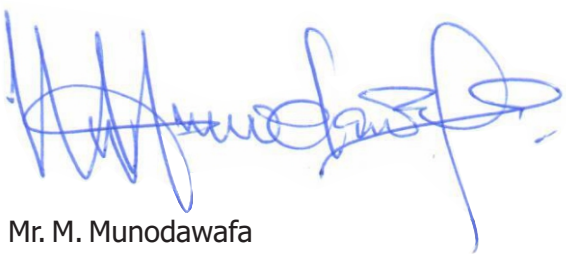
The formulation of the National Climate Change Learning Strategy involved a robust stakeholder consultation process from the inception and national planning workshop in 2019, Mid-term Project Review and Validation Workshops in the first and third quarter of 2020 respectively. In developing the Strategy, key stakeholders consulted were from the five key priority sectors of Agriculture, Energy, Education, Environment and Health, and they range from Government Ministries, Non-Governmental Organisations, Civil Society Organisations, Private Sector, Academic and Research Institutions, Development Partners, as well as local community members.

I am grateful for the contributions made by Government Ministries, organisations and individuals who contributed in various ways to the successful crafting of this strategy. The strategy formulation process was driven by the UN CC: Learn Project Steering Committee headed by the Ministry and constituted of key Ministries, universities, agriculture colleges, teachers colleges, civil society organisations, media and the youths.

It would be amiss not to mention the various consultative meetings and workshops organised by the Climate Change Management Department right from the start. The Ministry of Environment, Climate, Tourism and Hospitality Industry hereby expresses its utmost profound gratitude to all stakeholders who participated and contributed to the development of this National Climate Change Learning Strategy. Your efforts will no doubt, add value to the successful achievement of the objectives of climate change learning in Zimbabwe.

Last but not least, the Ministry extends profound gratitude to the Swiss Agency for Development and Cooperation through the United Nations Institute for Training and Research (UNITAR) for providing financial support to the Government of Zimbabwe to develop this National Climate Change Learning Strategy. United Nations Development Programme (UNDP) was very critical in this process as the funds from UNITAR were being channelled through them. They performed that task in a transparent manner.

The Ministry stands ready for continued collaborations and support during the critical upcoming phase of the implementation of this Strategy.



Mr. M. Munodawafa

PERMANENT SECRETARY FOR ENVIRONMENT, CLIMATE, TOURISM AND HOSPITALITY INDUSTRY.

Executive Summary

A National Climate Change Learning Strategy is a powerful tool to support the implementation of NDCs and NAPs, as well as other relevant plans addressing climate change. The intricate linkages between climate change and development, will undoubtedly contribute to the attainment of the 2030 Agenda for Sustainable Development. The Strategy provides a strategic and comprehensive framework which identifies critical learning and skills development needs in key climate-related sectors as highlighted in the country's NDC, NAP and other climate related strategies and policies. It also addresses challenges to existing training and educational systems in order to increase learning opportunities and reach all relevant stakeholders. This strategy will help to inform Government on how to strengthen capacity building at all levels (Systemic, Individual and Institutional), learning and skills development. This is also a huge step towards the achievement of national climate change objectives as highlighted in the National Climate Policy, National Climate Change Response Strategy and other climate change related strategies and policies. The Strategy will be implemented from 2020 up to 2030 with short, medium and long term learning actions.

The strategy consists of six main sections. These includes a section with National Policy Priorities, Institutions and Key Initiatives (Section 1). This is followed by Policy, legal and Institutional Framework on Climate Change (Section 2); Capacity Gaps and Learning Needs (Section 3), Strategy Vision, Strategic Priorities and Measurable Targets/Objectives (Section 4); Action Plans for the National Climate Change Learning Strategy (Section 5); and, Implementation Framework, Monitoring and Evaluation Plan and Resource Mobilization Strategy (Section 6).

The Vision of Zimbabwe's Climate Change Learning Strategy is to create "a climate change literate, responsive and resilient nation by the year 2030." Its Mission is "To achieve a climate change resilient nation, guided by science, research, education and communication for decision support," and the Goal being "To ensure mainstreaming of climate change education and learning strategies in all relevant social and economic development initiatives at national and sectoral levels through multi-stakeholder engagement and participation."

The Strategic Objectives are to:

- Mainstream climate change in all education curricula at all levels;
- Develop tailor made climate change resource books for educators at all levels;
- Facilitate enhanced teaching/learning of climate change in both formal and non-formal institutions;
- Promote innovations and skills development in climate change mitigation and adaptation across all sectors of the economy;
- Ensure gender is mainstreamed in all climate change management interventions;
- Increase collaboration amongst government entities, research and extension workers, Civil Society Organisations, private sector and farmers' groups;

- Improve knowledge on climate change aspects in agriculture, energy, education, environment and health sectors through participatory information exchange methods;
- Mitigate the negative impacts of climate change, enhance adaptive capacity and build resilience.

The National Climate Change Learning Strategy has four pillars which include:

Pillar 1: Capacity to effect:

- Adaptation and mitigation.
- Climate change communication.
- Education and raising awareness.
- Research and development.
- Appropriate institutions to address climate change learning issues.

Pillar 2: Governance and implementation framework:

- Institutions.
- Networks.

Pillar 3: Finance and Investment:

- Partnerships.
- Local and International Financing.

Pillar 4: Communication and advocacy;

- Information management and dissemination.
- Sector and sub-sector level-specific information, education and communication materials

Guiding Principles

Zimbabwe's National Climate Change Learning Strategy is anchored on the following Guiding Principles:

- Strengthen and Mainstream climate change into all levels of education and learning curricula both in the Formal and Non-formal education including on the job training for both the public and private sectors;
- Country-driven and predicated on national development priorities through a suitable mix or combination of learning activities that include on the job training, refresher courses, mentorship and coaching by experts in the various sectors;
- Professional learning, capacity and skills development to equip professionals with knowledge and skill enabling them to achieve climate change response;
- Participation and engagement of all stakeholders in response to climate change is important and must include stakeholders in both public and private sectors as well as those in different communities especially the sensitive communities and vulnerable members of the community;

- Zimbabwe should engage in climate change response which is knowledge and evidence based that incorporates indigenous knowledge systems, cultural norms and interfaces with science; and,
- The Zimbabwean citizenry should have access to information on climate change impacts and/or opportunities to allow for informed decision in order to mitigate and adapt to climate change.

The priority sectors covered in this strategy have the following strategies which will be covered under each of the sector:

1. Energy

- Strengthen low carbon energy provision and use through education and training;
- Create awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy efficiency;
- Promote research and development in the renewable energy sector;
- Reduce greenhouse gas emissions in industry, and at household level through demand side management and energy saving techniques; and,
- Strengthen energy planning and modelling.

2. Agriculture

- Strengthen the sector's capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging development challenges arising from increased climate change and variability;
- Develop frameworks for sustainable intensification and commercialization of agriculture at different scales across agro-ecologies through efficient extension and advisory services provision;
- Strengthen the collaboration in research between research institutions, industry, extension workers, farmers' groups and other relevant sectors to improve early warning systems and improve cropping season quality, rangelands conditions, mitigation of the impacts of droughts, floods, disease/pest outbreaks and wildlife movement in order to enhance farmer preparedness and improve productivity; and,
- Promote climate smart agriculture practices in all farming communities in Zimbabwe.

3. Environment

- Communicate climate change messages incorporating indigenous knowledge systems;
- Promote and strengthen stakeholder awareness on causes, impacts and response;
- Raise awareness on climate change, environmental conservation and sustainable use of natural resources;
- Encourage sharing of information and networking on climate change and environmental conservation issues at local, regional and international levels; and,
- Promote resource mobilization through development of bankable proposals in all sectors.

4. Education

- Enhance the teaching and learning of climate change at all levels of education (formal and informal); and,
- Provide relevant training on climate change issues to educators and practitioners working in all formal learning institutions and informal institutions working with communities.

5. Health

- Strengthen capacity for monitoring human health under changing disease coverage and epidemics due to climate change;
- Build resilience against climate change sensitive diseases through education and learning;
- Enhance institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society;
- Promote climate proofing investments for health and create a conducive environment for the use of weather-indexed insurance; and,
- Understand the impacts of climate change on women, children, youth and people living with disabilities in Zimbabwe and create an enabling environment that prevents harm to these vulnerable groups emanating from pressures of these impacts.

Action Plan, Implementation Framework, Monitoring and Evaluation Plan and Resource Mobilization

The Climate Change Learning Strategy has Action Plans that have been developed for the priority sectors and these can also be adapted for other sectors as climate change is a cross-sectoral issue. The Action Plans here developed include: actions to be implemented, indicative time frames, lead agencies, cooperating agencies, potential sources of financial resource or funding partners and estimated costs for the strategy. The Actions will be implemented for an initial period of 10 years and reviews will be done at five year intervals with regular updates on current and emerging issues making the Strategy an organic rather than a static one. The Government of Zimbabwe's largest source of funding is through Treasury allocations and this will be augmented by the contribution from the private sectors, various climate funds, bilateral and international funding partners and funds dedicated to adaptation and mitigation activities in Zimbabwe. Table 1 summarises the estimated costs per sector;

Table 1:Summary of the estimated costs for the implementation of the National Climate Change Learning Strategy Action Plans

SECTOR	AMOUNT (USD)
Energy	1,380, 000
Agriculture	2, 290, 000
Environment	1, 044, 000
Education	2, 035, 000
Health	1, 470, 000
Grand Total	**8, 219, 000**

Contents

FOREWORD.....i

ACKNOWLEDGEMENTS.....iii

EXECUTIVE SUMMARY.....iv

LIST OF FIGURES.....x

LIST OF TABLES.....x

ABBREVIATIONS.....xi

SECTION 1

NATIONAL POLICY PRIORITIES, INSTITUTIONS AND KEY INITIATIVES

INTRODUCTION.....1

1.1 The Global Context.....1

1.1.1 Action for Climate Empowerment (ACE).....3

1.1.2 The 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs).....4

1.1.3 Action by African States towards climate change learning.....5

1.2 The National Context.....6

1.3 The Challenge.....8

1.4 The Rationale for Zimbabwe's Participation in the UN CC:Learn Initiative.....8

SECTION 2

POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK ON CLIMATE CHANGE AND EDUCATION.....11

2.1 Nationally Determined Contribution.....11

2.2 National Climate Change Response Strategy (2014).....12

2.3 National Climate Policy, 2017.....13

2.4 National Energy Policy (2012).....14

2.5 National Renewable Energy Policy (2019).....14

2.6 Biofuels Policy (2019).....15

2.7 Zimbabwe National Agriculture Policy Framework (2018-2030).....15

2.8 The National Environmental Policy and Strategies, 2009.....17

2.9 Low Greenhouse Gas Emission Development Strategy (LEDS) 2020-2050.....18

2.10 Curriculum Framework for Primary and Secondary Education (2015-2022).....18

2.11 National Non-Formal Education Policy for Zimbabwe, 2015.....19

SECTION 3

CAPACITY GAPS AND LEARNING NEEDS.....20

3.1 Institutional Capacity Gaps.....20
3.2 Individual Capacity Issues.....21

SECTION 4

STRATEGY VISION, STRATEGIC PRIORITIES AND MEASURABLE TARGETS/ OBJECTIVES.....24
4.1 Vision.....24
4.2 Mission.....24
4.3 Goal 24
4.4Strategic Objectives 24
4.5 Pillars 25
4.6 Guiding Principles 25

SECTION 5

ACTION PLANS FOR THE NATIONAL CLIMATE CHANGE LEARNING STRATEGY.....26
5.1 Energy 27
5.2 Agriculture.....32
5.3 Environment 38
5.4 Education 44
5.5 Health 51

SECTION 6

IMPLEMENTATION FRAMEWORK, MONITORING AND EVALUATION PLAN AND RESOURCE MOBILIZATION STRATEGY.....57
6.1 IMPLEMENTATION STRUCTURE 57
6.2 MONITORING AND EVALUATION PLAN.....57
6.3 RESOURCE MOBILIZATION STRATEGY.....58

ANNEXES

Annex 1: Monitoring and Evaluation Framework for the National Climate Change Learning Strategy by Sector.....62
Annex 2: Guidance on the M and E Framework and Indicator Tracking Table.....93
Annex 3: Monitoring and Evaluation Framework Database.....96
Annex 4: List of Participants for the Strategy Development Process 119

Figures & Tables

List of Figures

Figure 1: Levels of Capacity Building Activities (UNFCCC Capacity Building Portal) 3
Figure 2: The 17 Sustainable Development Goals 5

List of Tables

Table 1: Summary of Estimated Costs for the Implementation of the National Climate Change Learning Strategy...xii
Table 3.1: Climate change learning capacity gaps in key sectors 21
Table 5.1 Sectors prioritised for UN CC:Learn 26
Table 5.2 Actions plans for the Energy Sector 28
Table 5.3 Action plans for the Agricultural Sector 33
Table 5.4 Action plans for the Environment Sector 39
Table 5.5 Action plans for the Education Sector 46
Table 5.6 Action Plans for the Health Sector 53
Table 6.1 Schedule of M&E activities 58

Abbreviations

ACE	Action for Climate Empowerment
ACPC	African Climate Policy Centre
AF	Adaptation Fund
AfDB	African Development Bank
AFOLU	Agriculture, Forestry and other Land Uses
BIOCLAM- GIS	Bioclimatic Geographic Information Systems Models
BURs	Biennial Update Reports
CAADP	Comprehensive Africa Agriculture Development Programme
CAEP	Climate Action Enhancement Package
CBF	Comprehensive Capacity Building Framework
CCMD	Climate Change Management Department
ClimDev-Africa	Climate Change and Development in Africa
CH_4	Methane Gas
CO_2	Carbon Dioxide
CO	Carbon Monoxide
COP	Conference of the Parties
CPEIR	Climate Public and Institutional Review
CSOs	Civil Society Organizations
CTCN	Climate Technology Centre and Network
EMA	Environmental Management Agency
FAO	Food and Agriculture Organization
GCF	Green Climate Fund
GEF	Global Environmental Facility
GHGs	Green House Gases
HIVOS	Humanistisch Instituut voor Ontwikkelingssamenwerking, (Humanist Institute for Cooperation with Developing Countries)
IDBZ	Infrastructure Development Bank of Zimbabwe
INDCs	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
LEDS	Low Emission Development Strategy
MDGs	Millennium Development Goals
MECTHI	Ministry of Environment, Climate, Tourism and Hospitality Industry
MHTEISTD	Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development
MiET AFRICA	The Media in Education Trust
MoEPD	Ministry of Energy and Power Development
MoFED	Ministry of Finance and Economic Development
MoHCC	Ministry of Health and Child Care
MoPSE	Ministry of Primary and Secondary Education
MoTID	Ministry of Transport and Infrastructure Development
MRV	Monitoring, Reporting and Verification
MWA	Ministry of Women Affairs
NAPF	The National Agriculture Policy Framework
NBP	National Biofuels Policy

NCCRS	National Climate Change Response Strategy
NCSA	National Capacity Self-assessment for Climate Change
NDC	Nationally Determined Contribution
NEP	National Energy Policy
NFEP	Non-formal Education Policy
NGOs	Non-Governmental Organizations
Nox	Nitrogen Oxides
No2	Nitrogen Dioxide
NOIC	National Oil Infrastructure Company
NREP	National Renewable Energy Policy
OPC	Office of President and Cabinet
RECS	Regional Economic Communities
REDD+	Reducing Emissions from Deforestation and Forest Degradation, plus the Sustainable Management of Forests, and the Conservation and Enhancement of Forest Carbon Stocks
SDGs	Sustainable Development Goals
SE4ALL	Sustainable Energy for All
SMEs	Small and Medium Enterprises
TNC	Third National Communication to the UNFCCC
TVET	Technical, Vocational Education and Training Institutions UN United Nations
UN CC: Learn	"One UN Climate Change Learning Partnership"
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization
ZAIP	Zimbabwe Agricultural Investment Plan
ZIM-CLIM	Zimbabwe Climate Change Technical Assistance Program
ZIMREF	Zimbabwe Reconstruction Fund
ZERA	Zimbabwe Energy Regulatory Authority
ZESA	Zimbabwe Electricity Supply Authority
ZETDC	Zimbabwe Electricity Transmission and Distribution Company
ZPC	Zimbabwe Power Company

SECTION 1

NATIONAL POLICY PRIORITIES, INSTITUTIONS AND KEY INITIATIVES

1.0 INTRODUCTION

Climate change is a salient global issue affecting all countries regardless of developmental status. Despite the media coverage and numerous online debates on the issue of climate change, sharing of sound knowledge and adaptation strategies remains a major priority. Zimbabwe has not been spared by the climate change phenomenon which is manifesting itself in the form of increased extreme weather events and changes in the weather patterns. The frequency and magnitude of droughts, floods, heatwaves and erratic rainfall patterns has noticeably escalated. Many of these weather events have led to loss of both human life and a variety of flora and fauna. Climate change is threat to the first basic human right which is the right to life.

Zimbabwe has not changed much of its traditional practices when it comes to the management of sectors such as agriculture, water resources and mining. However, the status quo is no longer sustainable nor desirable and new smart methods of management have to be introduced. The rural communities of Zimbabwe mainly depend on rain fed agriculture and available water resources. Climate change is making productivity more difficult and food insecurity is now a persistent challenge especially for rural communities in Zimbabwe. The solutions to these problems are likely to be more effective if there is a contribution to them by those experiencing first-hand the devastating effects of climate change using strategies they think are best suited to their own settings. It has become of utmost importance that the Zimbabwean population knows more about climate change, the potential challenges it presents, how to adapt to it as well contribute to its mitigation. Tackling the climate change challenge require new ways of thinking, new innovative approaches to development and new partnerships across all sectors and stakeholders towards a climate resilient society.

1.1 The Global Context

The United Nations Framework Convention on Climate Change (UNFCCC) (1992) sets practical principles to guide responsible and fair international action on climate change. The Convention acknowledges that the causes of the climate change challenge are mainly anthropogenic (caused by humans or their activities). Human beings are the cause, main victims and also possibly the solution to the climate change challenge. Therefore, it is important to educate the global human resource on the causes, effects and potential solutions to climate change.

The UNFCCC, through its Article 6 on Education, Training and Awareness, the Kyoto Protocol, through its Article 10 (e) and the Paris Agreement in its Article 12 call on governments to educate, empower and engage all stakeholders and major groups on policies relating to climate change. Parties to the Convention were encouraged to cooperate in taking measures to enhance climate change education, training, public awareness, public participation and public access to climate change information. Article 6 of the UNFCCC provides that in carrying out their commitments under Article 4 of the Convention;

Parties shall:

(a) Promote and facilitate at the national and, as appropriate, sub-regional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

i. The development and implementation of educational and public awareness programmes on climate change and its effects;

ii. Public access to information on climate change and its effects;

iii. Public participation in addressing climate change and its effects and developing adequate responses; and

iv. Training of scientific, technical and managerial personnel.

(b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

The development and exchange of educational and public awareness material on climate change and its effects; and

The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in the field of climate change, in particular for developing countries.

Source: UNFCCC Document, 1992

However, it was observed that different economies, societies and systems have different capacities to undertake what is expected of them. As a result, the Seventh Conference of the Parties (COP 7) to the UNFCCC in 2001, observed that without addressing the capacity problem especially in the developing world, the attainment of the objective of the Convention will be delayed. A Comprehensive Capacity Building Framework (CBF) was therefore adopted to help in implementing the Convention as is shown in Figure 1.1.

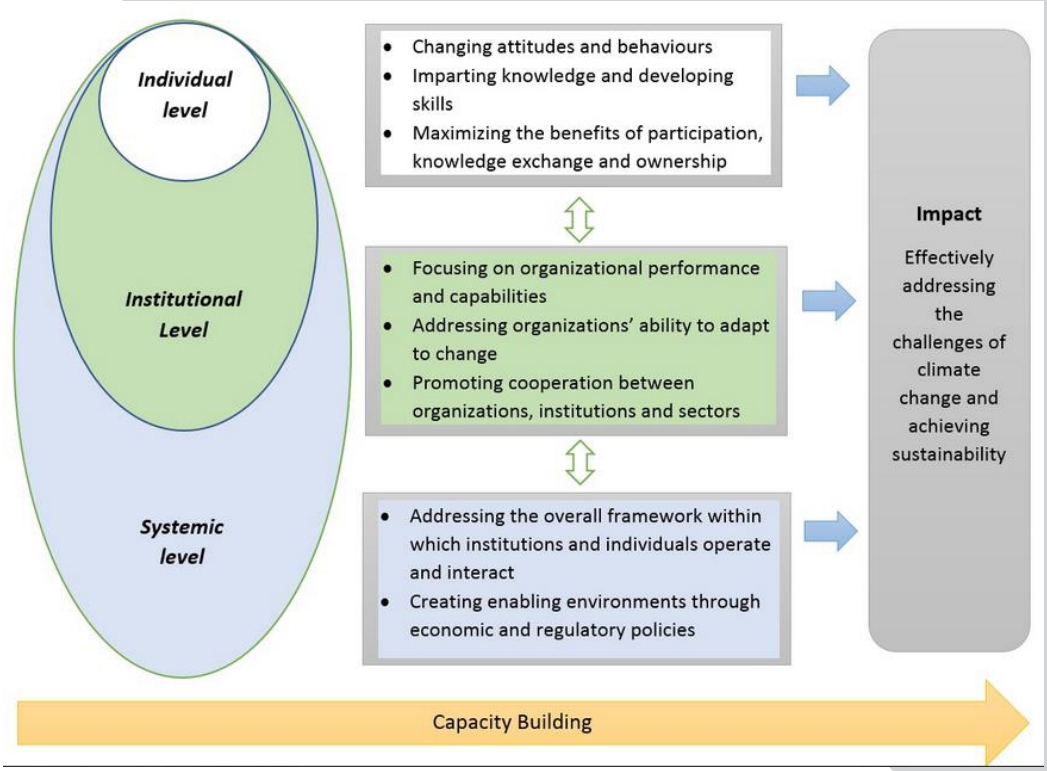


Figure 1.1: Levels of Capacity Building Activities (UNFCCC Capacity Building Portal)

In New Delhi, 2002, the 8th Conference of Parties (COP 8) Parties adopted the New Delhi Work Programme (2002-2007) – to serve as a flexible framework for country-driven action on Article 6 of the Convention in addressing the specific needs and circumstances of Parties, and reflecting their national priorities and initiatives. In 2007, COP 13 (in Bali) the New Delhi Work programme was amended and extended for five years (2007-2012). It was requested that regional workshops be organized by the UNFCCC Secretariat as part of the review of the work programme, and for Parties to share lessons learned and best practices. In 2012 in Doha, at COP 18 an eight-year Doha Work Programme on Article 6 of the UNFCCC (2012-2020) was adopted. This programme invites Parties to designate and provide support, including technical and financial support, and access to information and materials to a National Focal Point for Article 6 of the UNFCCC. COP 20 in Lima, December 2014 adopted the "Lima Ministerial Declaration on Education and Awareness-raising", reaffirming the importance of Article 6 of the UNFCCC in meeting its ultimate objectives and in promoting climate resilient sustainable development.

1.1.1 Action for Climate Empowerment (ACE)

In June 2015, at the 3rd annual dialogue on Article 6 in Bonn, it was decided that efforts related to the implementation of Article 6 would be referred to as Action for Climate Empowerment (ACE). In 2015 at COP 21 (Paris) governments agreed to cooperate in taking measures, as appropriate, to enhance climate change-related education, training, public awareness, public participation and public access to information, recognizing the importance of these steps to enhance actions under the Paris Agreement. ACE is fundamental for the long-term transformation to a carbon-neutral lifestyle, requiring everyone to get on board with solutions and take climate action on the ground. In 2016, the 4th annual dialogue on ACE was held in Bonn and the intermediate review of the Doha Work Programme was completed. The final review of the Doha Work Programme will be carried out in 2020.

The Doha work programme provides a set of guiding principles and priority areas that has served as a flexible framework for country-driven action addressing the six elements of Article 6 of the Convention: education, training, public awareness, public participation, public access to information and international cooperation. Governments and non-Party stakeholders have implemented numerous ACE projects and initiatives at the local, national, regional and international level. Furthermore, ACE has been integrated into global agendas: in Article 12 of the Paris Agreement, Sustainable Development Goal 13 and the 2018 Katowice Climate Package.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) supports countries in integrating climate change into their education systems through policy guidance and capacity-building activities for policymakers and teachers. It offers free access to teaching and learning resources on climate change via its online clearing housefor the Global Action Programme (GAP) on Education for Sustainable Development (ESD) which serves as an effective one-stop online hub to foster the ESD global community of practice to share knowledge, experiences and competences.In addition, it mobilizes climate action through its Associated Schools Network, its flagship climate education project, which involves many schools in different countries. The importance of promoting public participation and engaging the private sector, academia, civil society organizations and other stakeholders in ACE planning, implementation and reporting is critical.

Development of a national ACE strategy is key to implementing Article 6 of the Convention and Article 12 of the Paris Agreement. The United Nations Institute for Training and Research (UNITAR) is helping countries to integrate ACE into climate change policies and climate change into education policies. The One UN Climate Change Learning Partnership supports Parties in developing national ACE strategies and promotes a systematic and strategic approach to climate change learning and leveraging the impact of ACE to achieve adaptation and mitigation objectives.

1.1.2 The 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs)

The 2030 Agenda for Sustainable Development was adopted at the United Nations Summit held in 2015. This Agenda is a plan of action for the world and its people and for prosperity. This plan is implemented by all countries and all stakeholders, acting in collaborative partnerships. The 2030 Agenda for Sustainable Development came up with 17 Sustainable Development Goals (SDGs) and 169 targets which demonstrate the scale and ambition of the universal Agenda (see Figure 1.2). The SDGs are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental. The goals and targets are to stimulate action over a 15-year period (2016-2030) in areas of critical importance for humanity and the planet.

The 2030 Agenda for Sustainable Development is to end poverty, inequality and injustice, and tackle climate change by 2030. Three of the 17 goals and two associated targets have particular relevance to ACE:



Figure1.2: The 17 Sustainable Development Goals

Goal 4: Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and particularly Target 4.7: "By 2030 ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development."

Goal 13: Climate Action: Take urgent action to combat climate change and its impacts, and particularly Target 13.3: "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning."

Goal 16: Promote just, peaceful and inclusive societies, and particularly Target 16.10: "Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements" and Target 16.7: "Ensure responsive, inclusive, participatory and representative decision-making at all levels."

1.1.3 Action by African States towards climate change learning

The Heads of State and Government of the African Union, at a meeting at the 8th Ordinary Session of the African Union General Assembly in Addis Ababa in 2007, adopted the African Union's Declaration on Climate Change and Development in Africa (ClimDev-Africa).The Declaration called on the African Union Member States to (i) ratify the Kyoto Protocol; (ii) participate in the UNFCCC processes; (iii) enhance capacity building , (iv) invest in efficient data collection and early warning systems; (v) integrate adaptation strategies into country policies; (vi) raise awareness; (vii) strengthen cooperation between national meteorological offices, hydrological centres and regional economic communities (RECS) (viii) strengthen research, especially in renewables, forestry and agriculture to increase resilience; (ix) transfer technologies; and, (x) put pressure on developed countries on the 'polluter pays' principle seeking deeper greenhouse gas emission reductions.

The ClimDev-Africa's African Climate Policy Centre (ACPC) was established at the United Nations Economic Commission for Africa (UNECA) Headquarters in Addis Ababa in 2010, it was developed as a capacity building programme to enhance the capacity development of African Institutions and individuals in relation to climate change policy analysis. The specific objectives of the programme are to:

- Build solid climate change knowledge based on facts and scientific evidence;
- Promote climate change education, research and innovation;
- Build the capacity of key stakeholders to become active participants in the response to climate change through training;
- Build the capacity of young Africans with fellowship programmes by engaging university students and academics;
- Enhance climate change research capacity in African universities and research institutions by offering research grants, supporting programme development and mainstreaming climate change related university curricula;
- Build capacity and increase the awareness of African policy makers such as government officials, parliamentarians, negotiators, and regional economic commissions through direct short term training, seminars and roundtables;
- Provide tailor-made climate change training programmes for journalists and media professionals;
- Develop innovative programmes and initiatives such as national and regional networks, communities of practice and an African panel on climate change; support national panels so that knowledge generation in Africa is enhanced, and relevant platforms are developed and owned by Africans.

The expected achievements of the programme are:

- Improved capacity at national and regional level in research, analysis, formulation of policy to monitor and evaluate the impact of climate change on African development;
- Improved research capacity of selected Higher Education Institutions (HEIs) to address climate change;
- Increased awareness of policy-makers, legislators and other selected stakeholders on climate change risks and their impact on socio-economic development;
- Increased availability and more efficient utilisation of climate information and knowledge resources in support of Africa's development;
- Strengthened collaboration and networking for more efficient climate change information, knowledge and services sharing, and programme implementation

1.2 The National Context

Zimbabwe ratified the UNFCCC, Kyoto Protocol and the Paris Agreement it is therefore obliged to make its contribution to the global efforts to curb climate change and its effects. According to the Zimbabwe's conditional Nationally Determined Contributions (NDC), energy and agriculture sectors produce more greenhouse gas emissions than all other sectors. In the initial NDC, Zimbabwe pledged to reduce energy-related emissions by 33% per capita below the projected business as usual scenario by 2030 and also to make the agriculture sector climate-resilient. The NDC is conditional to positive flow of finance from developed country Parties, technology transfer and capacity building. The two sectors identified in the country's NDC support every other means of production, therefore it rests on everyone to do their part in taking action against climate change.

The mandate to handle climate change issues falls with the Climate Change Management Department (CCMD) under the Ministry of Environment, Climate, Tourism and Hospitality Industry. This does not mean that other ministries cannot contribute or be involved in climate change learning activities as the CCMD plays a coordination role. The Ministry of Primary and Secondary Education recognised this and incorporated climate change into the new competence-based education curriculum of 2015, recognising it as a cross cutting issue. The Ministries responsible for Agriculture, Women Affairs and Gender, Local Government, Finance, Higher and Tertiary Education and Energy also take part in climate programming and have to some extent included the matter in their new or draft policy frameworks.

The country's overarching policy instrument on climate change is the 2017 National Climate Policy aided by the 2014 National Climate Change Response Strategy. The Government is currently working on the development of Climate Change Legislation to help in operationalising the Policy; finalised a Low Emission Development Strategy (LEDS) with mid-century sector-specific emission reduction measures in line with the Paris Agreement; and, currently developing a National Adaptation Plan to help in mainstreaming climate change adaptation towards climate resilience.

The Zimbabwe Climate Change Technical Assistance program (ZIM-CLIM) was a USD$1.5 million component of the Zimbabwe Reconstruction Fund (ZIMREF) which was being implemented by the World Bank. The goal of ZIM-CLIM was to mainstream climate change considerations in the planning and management of priority sectors, notably agriculture, forestry and water/energy infrastructure. ZIM-CLIM supported the country to develop an NDC Implementation Framework which provides a practical plan for achieving the NDC targets focused on the energy sector. The programme also managed to build capacity of national institutions to mobilize climate finance. The Technical Assistance also supported analytical work on vulnerability of forestry resources and development of climate smart irrigation guidelines.

To complement World Bank's efforts, the Government of Zimbabwe with support from UNDP, finalised the development of an economy-wide Low Emission Development Strategy (LEDS) and the Monitoring, Reporting and Verification (MRV) system to help in meeting the country's emissions reduction target. The LEDS document is a very important document in the NDC work and complements the NDC Implementation Framework developed under the World Bank Technical Assistance. The two documents will support Zimbabwe in implementing its emission reduction targets in the current NDC – and in updating and enhancing Zimbabwe's NDC from being focused on the energy sector to become economy wide. The Low Emission Development Strategy shows that the majority of the prioritized mitigation actions make good business and investment sense.

The country mobilised funds from the Green Climate Fund (GCF) to build capacity to advance national adaptation planning process in Zimbabwe. The resources will see development of a National Adaptation Plan that will mainstream climate change adaptation towards climate resilience through: i) Strengthening technical and institutional capacity; ii) Efficient collection and dissemination of climate information, iii) Appropriate mobilisation of financial and technical resources, and iv) Effective monitoring and reviewing. The project with UN Environment as a delivery partner and Climate Change Management Department as an executing entity will be implemented from 2019 to 2021.

Through the Climate Change Management Department, the country periodically prepares and submits a National

Communication (NC) report to the UNFCCC. The core elements of the NC include relevant information on national circumstances; national greenhouse gas inventories; a vulnerability and adaptation assessment; mitigation assessment; financial resources and transfer of technology; education, training and public awareness programmes and initiatives; and any other information considered relevant to the achievement of the objective of the Convention. Currently development of the Fourth National Communications and the First Biennial Update Report (BUR) is underway

In 2006 Zimbabwe embarked on a National Capacity Self-Assessment for Climate change programme through the then Ministry of Environment and Tourism. The Assessment noted limited sharing of information between stakeholders attributed to the existence of poor information, communication technology infrastructure and an under developed ability to use the information provided. A key recommendation from the assessment was the need to enhance the capacity to share climate change experiences and practices. This implies that there is a need to promote communication on climate change between communities. There is need for inter-departmental coordination to ensure that climate change information reaches the targeted broad audience. Another recommendation made was that for an increase in public participation and access to information on activities related to addressing climate change, land degradation and biodiversity loss.

In March 2019 parts of Zimbabwe were hit by the devastating Tropical Cyclone Idai. Warnings were given for people to vacate but because past cyclones were not highly destructive, people chose to stay. This is a clear indication of how the climate is changing and it is no longer business as usual. The communities therefore need to be well informed in order for lives to be saved. The success of climate change learning, education and public awareness is anchored on the ability of the country to implement enabling policies, institutional arrangements and availing funding to climate change learning efforts.

1.3 The Challenge

In Zimbabwe's Third National Communication to the UNFCCC (2017), it was observed that efforts to make the public aware of climate change are extensive and the vast majority knows about its existence. However, there is a generalisation of climate change knowledge which is not taking into account cause, effect and possible solutions. The frequency of the awareness exercises seems to be low and this has been attributed to lack of funding for such activities. There is a gap in communication between the various stakeholders of climate change management including ministries, educational institutions, industry, commerce and members of the general public.

A knowledgeable population that is able to critically assess situations and think of solutions which are economic is important to Zimbabwe's climate change mainstreaming agenda. Indigenous knowledge systems have merit to them and those with the scientific expertise must be able to interact with and exchange information with other stakeholders. Climate change action is everyone's responsibility and as such everyone must be fully equipped to do their part.

1.4 The Rationale for Zimbabwe's Participation in the UN CC:Learn Initiative

The "One UN Climate Change Learning Partnership" (UN CC:Learn) is a collaborative initiative of more than 36

multilateral organizations supporting countries to design and implement systematic, recurrent and results-oriented climate change learning under Article 6 of the UNFCCC. It was launched at the 2009 Copenhagen Climate Change Summit with the main objective of supporting countries in developing and implementing national climate change learning strategies. The secretariat of the UN CC:Learn is provided by the UN Institute for Training and Research (UNITAR). The offer for support was extended to Zimbabwe in 2019 following a meeting at the 24th Conference of Parties (COP 24) held in Katowice, Poland. The benefits of being a member of the Partnership include a combination of technical and financial support leading to development of a National Climate Change Learning Strategy as well as opportunities to engage in a vibrant community of countries, organisations and individuals prioritising climate change learning as a means of implementing the climate agreements.

Zimbabwe is taking action on climate change, having several dedicated national policies and strategies (e.g. National Climate Policy; National Environmental Policy and Strategies; National Climate Change Response Strategy; Low Emission Development Strategy (LEDS); and, the Nationally Determined Contributions(NDC)). The country received resources from the Green Climate Fund aimed at building capacity to advance national adaptation planning in Zimbabwe. This will help the country to mainstream climate change adaptation towards climate resilience through initiatives such as strengthening of technical and institutional capacities as well as efficient collection and dissemination of climate information. Climate change learning/ skills development provided by the UN CC:Learn initiative plays an important role in advancing NAP implementation.

There is no better way to protect citizens from climate change than to equip them with the right information on how to mitigate and adapt to climate change. Zimbabwe as a developing nation needs to strike a balance between speedy development and sustainability of that development. Zimbabwe consists of a very young population, because of that, ensuring that future generation still benefits from the climate system is of utmost importance. The growing population will demand more from the natural resources of the country, whose use, if not controlled will result in aggravated climate change effects. To sustain livelihoods, it is important that the country mitigates climate change and also puts in place adaptation strategies which can be enabled through increasing awareness and continuous learning.

The UN CC:Learn principles of developing a climate change learning strategy include:

i. Integrating climate change learning within national and sectoral plans.
ii. Integrating climate change learning into existing projects and programme designs.
iii. Achieving multi-sectoral and stakeholder collaboration
iv. Incorporating gender issues and responding to the needs of the labour market.
v. Strengthening existing education and training systems thereby fostering results.
vi. Ensure sustainability in starting projects and strengthening existing ones.

The UN CC:Learn initiative makes it easier for Zimbabwe to honour its obligations embedded in Articles 6, 10 and 12 respectively of the Convention. It breaks down the obligations and also gives guidance on the areas to look in to in order to increase climate change awareness.

Everyone in the country gets affected by erratic rainfall patterns, heatwaves, droughts, floods and other extreme weather events. Therefore, every individual in the country must at some point know about climate change problems, the role they can play to change the course of events triggered by climate change, despite the sector they may be in. UN CC:Learn is an excellent guiding initiative to allow Zimbabwe to achieve climate change literacy and build capacity of national institutions to plan and implement effective climate change actions.

The climate change learning strategy is important in that it provides guidelines for progress on many fronts including development and transfer of green technologies, greenhouse gas emissions reductions, and the establishment of effective policies and strategies. However, education, training, and awareness creation are equally of importance to create an informed and knowledgeable workforce. Zimbabwe has already begun implementation of the Nationally Determined Contributions and the National Adaptation Plan that are multi-sectoral in nature. It is therefore imperative that there is strengthening of capacities in various sectors and the learning strategy will provide the much needed backbone in terms of learning systems that are appropriate for the achievement of the objectives of these initiatives. There is also need to come up with learning strategies that will make the citizens able to articulate the contents within the NDCs and NAPs at all levels from the national to the sub-national level in Zimbabwe.

SECTION 2

POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK ON CLIMATE CHANGE AND EDUCATION

Climate change is a relatively new governance area in which policy and practice tend to precede theory or advance simultaneously. Establishing effective policy, legal and institutional frameworks is crucial to its management. Zimbabwe has an array of policies, legal and institutional frameworks that are central to the achievement of the country's climate change vision of having "A climate resilient and low carbon Zimbabwe." The imminent threat on the livelihoods of the country's population caused by climate change, calls for the government to come up with policies to respond to climate change and also to ensure the public is aware and ready to act on it.

The Constitution of Zimbabwe (2013) has provisions for environmental rights, including the right to:

a) An environment that is not harmful to health or wellbeing.

b) An environment protected for the benefit of present and future generations, through reasonable and other measures that;

i. Prevent pollution and ecological degradation

ii. Promote conservation

iii. Secure ecologically sustainable development and use of natural resources while promoting economic and social development.

These constitutional provisions can play a pivotal role in promoting climate change mitigation and adaptation.
Over and above the provisions in the constitution of Zimbabwe, some of the key policies that have a bearing to climate change and which form the basis of this Climate Change Learning Strategy are highlighted below.

2.1 Nationally Determined Contribution

The 19th COP meeting held in Warsaw, Poland in 2013 came up with decision 1/CP.19 which invited all parties to the UNFCCC to "initiate or intensify domestic preparations of their Intended Nationally Determined Contributions (INDCs)" well in advance of the 21th COP held in Paris, France in 2015, in preparation for the adoption of the Paris Agreement. INDCs form the basis of post-2020 global emissions reduction commitments as included in the agreement. The climate actions communicated in INDCs largely determine whether the world achieves the long term goals of the Paris Agreement: "To hold the increase in global average temperature to well below 2^{O}C above pre-industrial levels and pursue efforts to limit temperature increase to 1.5^{O}C above pre-industrial levels and to achieve net zero emissions in the second half of the 21st century."

The Government of Zimbabwe communicated its Intended Nationally Determined Contribution (INDC) to the UNFCCC in 2015 including conditions such as positive flow of finance from developed country parties, technology transfer and capacity building. The country's main climate change thrust is adaptation and poverty reduction. However, strategically

beneficial mitigation actions present a good opportunity for reducing greenhouse gas emissions and at the same time enhancing socio-economic growth and improving livelihoods. Zimbabwe INDC became its Nationally Determined Contribution (NDC) when the country signed and ratified the Paris Agreement in 2016.

The energy sector produces more emissions in comparison with other sectors therefore mitigation focus of Zimbabwe's NDC is largely on this sector. The emission reduction target for Zimbabwe is 33% below the projected Business as Usual energy emissions per capita by 2030. Emission reductions are targeted at greenhouse gases CO_2, CH_4 and NO_2. The target is to be achieved through actions such as energy efficiency improvement, increasing hydro in the energy mix, promoting renewable energy and implementation of REDD+ activities. The NDC also presents an adaptation contribution which seeks to upscale adaptation actions to enhance resilience of all sensitive socio-economic sectors among them agriculture and water resources. Some of the suggested activities under the adaptation component of the NDC include promoting adapted crop and livestock development and climate smart agricultural practices; building resilience in managing climate related disaster risks; and strengthening management of water resources and irrigation in the face of climate change.

In order to meet the mitigation target as set out in the NDC, every member of the Zimbabwean population needs to be making their contribution to climate change mitigation and put in place recommended mitigation actions. To build the capacity of the citizens to play their role in climate change mitigation and adaptation, it is fundamental that people know and understand the basics of climate change.

2.2 National Climate Change Response Strategy (2014)

The vision of the National Climate Change Response Strategy (NCCRS) is "to create a climate change resilient nation". Its mission is "to ensure sustainable development and a climate proofed economy through engaging all stakeholders whilst recognizing the vulnerable nature of Zimbabwe's natural resources and society." Its goal is "to mainstream climate change adaptation and mitigation strategies in economic and social development at national and sectoral levels through multi-stakeholder engagement." Some of the strategic objectives of the NCCRS are to:

- Mainstream climate change in all the key sectors of the economy;
- Develop climate proofed and environmentally sustainable transport systems that are less carbon intense;
- Promote sustainable development, management and utilization of water resources under changing climatic conditions;
- Address climate change through evidence-based research, technology development and transfer;
- Develop an effective climate change communication information management and communication system that facilitates access by all stakeholder group; and,
- Strengthen and mainstream climate change in all education curricula.

In addressing the need for climate change education, communication and awareness, the NCCRS highlighted that Zimbabwe needs to enhance the teaching and learning of climate change in both formal and informal settings. It is also important to provide relevant training on climate change issues to educators and practitioners working with

communities. Other issues raised included incorporation of indigenous knowledge systems and encouraging sharing of climate change information and networking at local, regional and international levels

The then Ministry of Environment, Water and Climate engaged the Ministry of Primary and Secondary Education in 2014 and lobbied for enhanced learning of climate change issues at all education levels. However, a major setback identified was the lack of expertise amongst educators and practitioners. To increase public awareness, the strategy suggests engaging public figures to use their platforms of influence to spread the message on climate change. This includes musicians, government officials and church leaders. The production of pamphlets translated to native languages, television, road and radio shows are also suggested as possible avenues of increasing awareness. Out of school and vulnerable youth such as those living with disabilities, would best be reached through their relevant associations.

There is a need to come up with climate change learning solutions that have continuity and to depend less on once off events. Communities must be empowered to identify and proffer solutions to their climate change problems.

2.3 National Climate Policy (2017)

The vision of the Policy is "A climate resilient and low carbon Zimbabwe." The objective of the Policy is to "guide climate change management in the country, enhance the national adaptation capacity, scale up mitigation actions, facilitate domestication of global policies and ensure compliance to the global mechanisms." The national climate policy puts emphasis on response which is knowledge and evidence based whilst also incorporating indigenous knowledge systems, culture and science. Appealing to the cultural norms of communities will allow the information to be more willingly consumed by the target communities. This presents a new need for training of individuals who understand the cultures and norms of target communities in order to allow good communication flow.

With regards to education, the policy stipulates that an education curriculum that mainstreams education has to be developed in order to scale up a child's right to education to learn and protect the environment. It also states a requirement to incorporate climate change knowledge in developing resilient infrastructure and climate sensitive development and legislation. To achieve this, policy makers and legislators must have background knowledge on climate change. Local authorities have to be aware of climate change issues in order to plan and budget for public awareness and development. The increase in online programmes worldwide demands that Zimbabwe keep up with the times and have some online climate change education programmes.

To increase public awareness and communication there is to mainstream climate change awareness in existing extension services, mainly targeting the rural and vulnerable communities. Meteorological and agro-meteorological information has to be simplified and communicated to the farming communities that would benefit from it. Formal and informal learning institutions may be involved in activities that promote climate responsible behaviour and they should be supported by the government. Media practitioners also have to be educated and trained to enhance their ability to communicate climate change issues. To ensure continuity of climate change information, it is important to design community based climate information management systems. Community involvement gives a sense of ownership of the

programme and would ensure it runs beyond the involvement of external parties.

Indigenous knowledge systems have to be given due merit and must be incorporated into climate change learning programmes. The knowledge coming from the communities directly experiencing climate change has to be documented in order to complement the available scientific knowledge. Respect for the communities and their existent systems would allow for greater impact to be made. The indigenous knowledge systems have to be mainstreamed, to include indigenous technology, skills and practices relevant to responding to climate change at local levels. The Meteorological Services Department and other local institutions would have to work together in order to upscale provision and utilisation of location specific climate products.

2.4 National Energy Policy (2012)

The National Energy Policy (NEP) plays a critical role as it provides the impetus for the production and supply of energy. Energy impacts on all sectors of society and the economy, and energy activities relate to both supply and demand. Energy is crucial to economic and social development, and to the alleviation of poverty. The goal of the NEP is to provide a framework for the exploitation, distribution and utilisation of energy resources in fulfilment of the following broad policy objectives and principles:

- Increase the access of all sectors of the economy to affordable energy services through the optimal use of available energy resources and the diversification of supply options;
- Stimulate sustainable economic growth by promoting competition, efficiency and investment in the sector;
- Improve the institutional framework and governance in the energy sector to enhance efficiency and the delivery of energy services;
- Promote research and development in the energy sector; and,
- Develop the use of other renewable sources of energy to complement conventional sources of energy.

The Policy contains strategies to translate the broad policy objectives into specific targets and actions in order to empower stakeholders to contribute towards the resolution and prevention of the recurring energy crises that have been facing the country. These strategies identify gaps between policy and practice and provide specific and actionable recommendations.

2.5 National Renewable Energy Policy (2019)

The National Renewable Energy Policy (NREP) emanates from the National Energy Policy of 2012 and seeks to contribute to the achievement of the country's NDC mitigation target. The Vision of the Policy is to "provide energy access to all in a sustainable manner by increasing the contribution of renewables in the country's energy mix." The goal is to increase access to clean and affordable energy through addition of installed Renewable Energy (RE) capacity of: 1,100 Mega Watts by the year 2025 or 16.5% of the total generation from RE sources, whichever is higher; and 2,100 Mega Watts by the year 2030 or 26.5% of total generation from RE sources, whichever is higher.

The NREP focusses on establishing market oriented measures and regulatory instruments for the renewable energy sector in Zimbabwe. The Policy seeks to promote investment in the renewable energy sector by providing specific incentives. It further recommends providing National Project Status to all the renewable energy projects. Primarily, the renewable energy sector in Zimbabwe consists of solar, hydro, wind, geothermal and biomass (which includes bagasse (sugarcane based), biogas, forestry and sawmill waste). Zimbabwe has vast renewable energy resources that are presently underutilised and present a big scope for investment. This policy thus also aims at addressing the barriers to the uptake of renewable energy in the country through different provisions and programs.

The Policy highlights that it has been observed that people lack knowledge and experience in operating renewable energy and off-grid technologies. Certain initiatives shall be taken to promote awareness of renewable energy and off-grid technologies. Awareness campaigns were recommended and these shall include free demonstrations regarding the use and benefits of renewable energy and off-grid technologies. The Policy will give guidance towards achieving the SDG 7 which seeks to ensure affordable and clean energy.

2.6 Biofuels Policy (2019)

The National Biofuels Policy (NBP) has been developed to guide long term sustainable development of the bio fuel sector in Zimbabwe through provision of an enabling environment. The Policy ensures that biofuel production; processing, distribution and marketing in Zimbabwe will remain within the parameters of economic, environmental and social sustainability. The policy recognises that the widespread adoption of bio-fuels could reduce the country's dependence on imported petroleum products; stabilize fuel prices; ensure energy security; promote rural development and investment; reduce poverty; and create employment.

The Policy covers the period up to year 2030 and focuses on liquid biofuels in the transport sector, initially ethanol from sugar cane and biodiesel from Jatropha, while exploring the possibility of using other feed stocks for bio fuel production. The Policy proposes that the country: achieves a consistent and sustainable ethanol blending ratio of up to 20% by 2030; introduces biodiesel at a blending ratio of up to 2% by 2030; and, increases the number of players in the biofuels sector.

2.7 Zimbabwe National Agriculture Policy Framework (2018-2030)

The National Agriculture Policy Framework (NAPF) was developed in the context of capturing a different set of both domestic and global development circumstances. Zimbabwe is signatory to various national, regional and international agreements and frameworks which focused on or are relevant to the agriculture sector. The NAPF incorporates an array of development intentions, targets, principles and values of key global and regional and national initiatives. At national level, the framework links to national development results and outcomes articulated in the Transitional Stabilisation Programme (TSP) 2018 - 2020, Zimbabwe Agricultural Investment Plan (ZAIP) 2017-2021, National Climate Policy and Agricultural Gender Policy among others. At the continental level, Vision 2063 for Africa, which finds practical expression through continental initiatives like Feed Africa that are funded through the African Development Bank, the European Union, the World Bank Related Foundations; represent veritable sources of investments to make the achievement

Zimbabwe's NAPF a reality. Whilst Comprehensive Africa Agriculture Development Programme (CAADP) still remains a reference point, the Millennium Development Goals (MDGs) have since been replaced by a more ambitious set of global development intentions and targets under the rubric of Agenda 2030 for Sustainable Development; whose achievements in the agricultural sector are expected to contribute to sustainable development. It is particularly noteworthy that, beyond the 17 Sustainable Development Goals, the global compacts on Financing Mechanisms for the SDGs and the Paris Agreement on Climate Change call on member states to explore additional mechanisms to enhance the flow of investments, including climate funds, to support inclusive, sustainable and green growth and development. This includes the mobilisation of climate compliant funds to support climate smart agriculture.

The NAPF has a number of guiding principles and strategic objectives and pillars. Of note are Pillar 1 on **Food and Nutrition Security and Resilience** which notes that climate-resilient agricultural practices are inadequately used; especially low-cost, climate-smart technologies and other resilience building measures.

The second Pillar on **Agricultural Knowledge, Technology and Innovation System** has as a policy statement, the need to "increase investment in agricultural research and development, technology and extension systems and adoption of climate- and business-smart technology and innovation." It notes the following challenges faced by the sector: (i) Inadequate funding for 18

key drivers of agricultural productivity and growth including: a) research and development; b) extension services, agricultural education and farmer training; c) irrigation and mechanisation development; and d) rural feeder roads. (ii) Poor linkages in research-extension-farmer-private sector in terms of extension message delivery, appropriate dissemination approaches and research prioritisation. (iii) Inadequate skilled manpower, practical agricultural training and coherence between curricula and industry needs. It states that there is need to develop and promote an efficient agricultural knowledge, technology, innovation and communication (exchange and dissemination) system as a response to the gaps and needs identified above. It also highlighted that there is need to improve agricultural colleges/ universities and curricular adapted to the needs (e.g. climate-resilient sustainable intensification, early warning systems, managing pests and diseases, nutrition) as well as practical training for extension staff on farms.

On Pillar VIII which is on **Resilient and Sustainable [Green] Agriculture**, the NAPF states that there is need to improve farmer resilience, increase productivity through mitigation and adaptation to climate shocks and sustainability of agriculture and food systems. And the gaps that were identified included the following; limited capacity to generate, disseminate, and understand information on climate change, emerging pests and diseases; lack of timeliness in early warning information generation and dissemination; and, limited adoption of efficient agricultural practices.

The response initiatives that would be undertaken to achieve resilience by farmers included the following; increase finance flows towards early warning, rapid response systems, extension and Research & Development; increase finance flows towards extension and Research & Development; mainstreaming climate change in all programmes and mobilise funds for climate change adaptation and mitigation programming; to enhance local capacity to generate, disseminate

to mainstream resource use efficiency and sustainable natural resource management in agricultural production systems through capacity building of extension services and farmers and payment for ecosystem services.

2.8 The National Environmental Policy and Strategies (2009)

The National Environmental Policy and Strategies of Zimbabwe of 2009 has a number of provisions that are key to the Climate Change Learning Initiative in Zimbabwe. One of the objective of the Policy is to promote public participation and a sense of responsibility for the environment through environmental education and awareness. It also has one that provides for; "Establishing and supporting effective institutional framework, committed to sustainable development and able to collate and manage environmental information." These objectives are well suited to further the Climate Change Learning thrust. These are supported by key policy principles and amongst them one that provides for "Environmental Education, environmental awareness and the sharing of knowledge and experience must be promoted in order to increase the capacity of the community to address environmental issues and engender values, attitudes, skills and behaviour consistent with sustainable environmental management. On sectoral thematic areas it has, under the social issues pertaining to the environment, a section that deals with environmental education that underscores the need for strengthening education so as to have a well knowledgeable and informed public on environmental issues as being essential for environmental conservation and management. It has a number of strategic directions that the Government of Zimbabwe working with its strategic partners undertook to achieve as listed below:

- Improve effectiveness of existing environmental education programmes by promoting the inclusion of both scientific and indigenous knowledge and practices in formal, informal and non-formal teaching, learning, training and extension programmes;
- Integrate relevant environmental issues into the national curriculum at all levels;
- Continue to support educational programmes to increase environmental awareness and public involvement, especially among the disadvantaged and less literate groups;
- Encourage and support capacity building and training programmes to enhance the skills and understanding of education personnel on environmental issues;
- Provide incentives for institutions engaging in environmental awareness and education; and,
- Establish monitoring and evaluation mechanisms to ensure the relevance and effectiveness of environmental education programmes.

It notes the importance of Indigenous Technical Knowledge and traditional practices as having a valuable contribution to management and sustainable use of natural resources which has a bearing on adaptation by communities in a changing climate. The guiding principles that are provided for to enable the achievement of this are:

- Promote wider application of indigenous knowledge and practice in managing and using natural resources sustainably, particularly where these are integral to local culture;
- Encourage the documentation, dissemination and use of indigenous technical knowledge on management and sustainable use of natural resources.

The Policy has provisions for capacity building in light of environmental management. Capacity building should be reflected at all levels of development that is from national to sub-national all the way down to local level. The capacity development intended was to go beyond the normal education and awareness but also include empowerment of communities and individuals to act. Some of the provisions in the strategic directions included:

- Maintaining adequate capacity to identify and evaluate emerging environmental issues and to provide the necessary information, advice and guidance on appropriate responses for improved environmental management;
- Raise public awareness and understanding of the essential linkages between development and the environment to promote effective individual and community participation in environmental management and governance;
- Encourage all interested-and –affected parties to develop the necessary understanding, skill and capacity for them to participate effectively in environmental decision-making.
- Strengthen cooperation among the public and private sectors and civil society, to share information and use the best available scientific and local knowledge for environmental management and protection.
- Support research and improve the monitoring and testing capabilities and facilities of national institutions to ensure effective and consistent monitoring of environmental quality, resource use, and environmental conditions and trends in the country.

2.9 Low Greenhouse Gas Emission Development Strategy (LEDS) (2020-2050)

The Government of Zimbabwe (GoZ) is committed to taking urgent action to mitigate the causes and adapt to the effects of climate change. As a Party to the United Nations Framework Convention on Climate Change (UNFCCC), the country seeks to contribute to the ambitious goal of limiting temperature rise to 1.5°C above pre-industrial levels as agreed under the Paris Agreement (PA) (UNFCCC, 2015). The Government of Zimbabwe developed the Long-term Low Greenhouse Gas Emission Development Strategy (LEDS), for the period 2020-2050, in response to the global climate change crisis. The Strategy sets the course for reducing emissions, while at the same time ensuring sustainable economic development for the country. It is based on the government's economic planning up to 2050 and covers mitigation measures in all Intergovernmental Panel on Climate Change (IPCC) sectors (Energy, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other Land Use (AFOLU), and Waste).

The LEDS explores measures that aim to reduce Greenhouse Gases (GHG) emissions or increase carbon sequestration in forests and soils while contributing to socio-economic development. The LEDS also provides a framework for developing an economy wide Nationally Determined Contribution (NDC). The LEDS is based on the assessment of 38 sectoral mitigation measures, identified following a comprehensive stakeholder consultation process. The implementation of these 38 sectoral mitigation measures will reduce the costs of electricity, agricultural production, fuel consumption and overall provide a significant impulse for economic growth.

2.10 Curriculum Framework for Primary and Secondary Education (2015-2022)

Education is fundamental to personal and national development. It provides a myriad of life opportunities. It also underpins the development of a highly skilled and innovative workforce which is critical for social, cultural and economic

growth. The Curriculum Framework for Primary and Secondary Education (2015-2022) provides a medium - to - long term policy direction and establishes a clear sequence of priorities to ensure that the return on investment is optimised in terms of the results that matter most, learner outcomes. The Zimbabwe Curriculum Framework sets out the common aims and objectives of the education system and the specific features of different education levels, thereby providing the basis for transparent relationships between schools, parents, and local communities. It also provides guidance to schools and education administrators in the organization, management and evaluation of the effectiveness of the school activities. Schools are encouraged to actively engage, as learning organisations, in providing diversified opportunities for all learners to develop the knowledge, key skills and attitudes defined in the framework.

The Zimbabwe Curriculum Framework describes the educational environment in which syllabi (or discipline specific outlines of objectives, outcomes, content and appropriate assessment and teaching methodologies) can be developed. It promotes a competency-based approach which is realised through practical-oriented learning. It is envisaged that the curriculum shifts from being content-based (examination bound) to a competency-based (outcomes oriented) curriculum which focuses on the learners' capacity to apply knowledge, skills and attitudes in an independent, practical and responsible way.

This Framework highlights significant shifts in the curriculum from infant level to secondary school level. The shifts are in respect of the goals, outcomes, learning content, teaching and learning methods and assessment. The curriculum emphasises the acquisition of life-long and work-related competences with the learner at the centre of the teaching and learning processes. This entails offering opportunities for learning in the cognitive, psychomotor and affective domains. Learning outcomes should be performance-oriented and should reflect competences required for improved prospects for life, work and leisure in a changing environment. This framework provides the principal instrument for guiding the practice of primary and secondary education in Zimbabwe.

2.11 National Non-Formal Education Policy for Zimbabwe (2015)

The National Non–Formal Education Policy (NFEP) is rooted within a rights-based framework for the provision of basic education, which is founded on the Universal Declaration of Human Rights (UDHR). The UDHR recognizes compulsory education as a universal entitlement, while the Convention on the Rights of the Child (1989) affirms the right of all children to free and compulsory primary education (Article 28.1. a). The Ministry responsible for Primary and Secondary Education (MoPSE) is responsible for the implementation and supervision of the policy.

The National Non-Formal Education Policy sets out a framework which establishes guidelines for the effective and efficient management and administration of Non-Formal Education in Zimbabwe. The policy outlines programmes, management structures, curriculum and monitoring and evaluation modalities. The overarching national development goal to which the Policy contributes is increased and equitable access to quality and inclusive education that is relevant in the socio-economic context of Zimbabwe. The MoPSE provide for the registration of NFE centres, quality assurance, monitoring and evaluation of NFE programmes. Furthermore, the Ministry develops models of teaching and regulate the materials to be used for Non-Formal Education.

SECTION 3

CAPACITY GAPS AND LEARNING NEEDS

An understanding of the capacity gaps and needs is important for the successful implementation of the National Climate Change Learning Strategy in Zimbabwe. This is built upon the engagement of stakeholders who play an essential role in achieving sustainability and success of the implementation thereof. It is of paramount importance to ensure increase in capacity, skills and competency of the various designated learning institutions on issues of climate change and constantly upgrading them to be better poised to provide better training, knowledge transfer and awareness creation.

The different key stakeholders from the prioritized sectors have varying levels of capacity gaps and learning needs that this Learning Strategy seeks to address. These needs range from the technical and financial capacity gaps of implementing institutions to the learning needs of the individuals and different groups in these sectors. In this strategy some of the identified stakeholders include key government departments, institutions, and organisations involved in policy making, industry, education and community engagement. These were put into the following categories (though the list is not exhaustive):

- The school/academic system includes all three levels of the educational system; primary, secondary and tertiary.
- Non-academic National Training Institutions
- Public Entities including Government Ministries, Parastatals, Legislators, Local Authorities, etc
- Business and the Private Sector
- Civil Society Organisations, Community Based Organisations and Non-Governmental Organisations,
- Traditional Leadership and Religious Organisations,
- The Media (print and electronic)
- Health Institutions and Professional Bodies,

Public awareness without sufficient education is inadequate. If Zimbabwe seeks to increase to increase the sharing of climate change information, it must be incorporated into formal and informal education. Media personnel, educators, extension workers must be educated on climate change dynamics so that they can reach and teach a larger portion of the population. Stakeholders such as policy makers must be continually trained to keep them in touch with new information and climate change trends. Research and tertiary institutions must take on a more active role in climate change learning and strengthening research and technology. The Non-governmental Organizations and Civil Society Organizations also have a role to play as they also provide extension services that are essential for the dissemination and teaching of the Zimbabwean population the different climate change issues that are current and emerging.

3.1 Institutional Capacity Gaps

There are a number of institutional capacity gaps that were identified during the stakeholder needs and capacity to deliver assessment. The gaps can be summed up by the following:

- Weak or poor coordination between institutions involved in programme implementation leading to duplication of activities and roles and ineffective and inefficient institutional linkages and approaches.

- Low levels of awareness and lack of utilization of indigenous knowledge systems in climate change response
- Poor infrastructure and equipment endowment in the different sectors
- Lack of clear and concise and adequate resource mobilization mechanisms;
- Poor accessibility to data and information on climate change in and across sectors;
- Lack of contextualized and appropriate conservation measures in agriculture and natural resources management in light of climate change
- Poor access to relevant technologies and technology transfer
- Lack of coordinated research between within and sectors that have similar research needs
- Weak Community participation in the conservation and sustainable management of natural resources such as forest, wildlife and water resources;
- Low levels of public awareness on climate change impacts and opportunities; and
- Poor energy mix options and lack of knowledge on alternative sources of energy.

3.2 Individual Capacity Issues

The gaps that were identified during literature review and stakeholder consultations are summed up by the following:

- Inadequate and/or inadequately skilled or trained manpower resources in the energy, agriculture, environment, education and health sectors
- Low morale of public service across all sectors due to lack of requisite knowledge and skills in most cases; and
- Limited staff incentives especially in the public service across all sectors.

During the literature review and stakeholder consultations conducted during the preparation of this Strategy, it became apparent that the country faces a number of challenges and gaps in climate change learning. These have been highlighted in Table 3.1. This is not to say that there is total absence of effort to ensure that the situation is addressed. The Government has made remarkable strides in redressing the situation through a number of initiatives both past and current.

Table3.1: Climate change learning capacity gaps in key sectors

Stakeholder Group	Capacity Building Needs Assessment	Priority Sectors Covering these gaps in the Strategy
Public Service (National and Sub-national Levels)	▪ Training on the effects of climate change on development and how to mainstream climate change into development planning at national and sub-national levels; ▪ Set up climate change focal persons for effective climate change communication to all stakeholders; ▪ Strengthen climate negotiation and resource mobilisation skills through training and experience sharing; ▪ Appropriate, reliable and up to date data to inform decision making, strategy development, planning, and implementation; ▪ Research information on locally appropriate climate change response interventions for uptake by communities; ▪ Relevant information and resources to show evidence of the relationship between climate change and sustainable development in all sectors of the economy; ▪ Need to an interface for scientific and indigenous knowledge as a means of tapping, analysing and	Energy Agriculture Environment Education Health

Stakeholder Group	Capacity Building Needs Assessment	Priority Sectors Covering these gaps in the Strategy
	documenting how communities are working to mitigate and adapt to adverse climate impacts; ▪ Mobilization and access to funds to support climate change initiatives at national and sub-national level; ▪ Development of appropriate MRV systems for mitigation and adaptation initiatives; ▪ Insufficient support services for index insurance; and, ▪ Incoherent institutional frameworks (policies) to coordinate disaster risk reduction.	
Academia (Formal All levels)	▪ Mainstream climate change into the educational curricular at all levels; ▪ Structure relevant course content by identifying thematic/learning areas; ▪ Ensure regular in-service training for managers of educational system, lecturers/teachers to keep them abreast with the emerging climate change issues; ▪ Ensure availability of up to date and reliable data from research; ▪ Enhance multi-sectoral, multi-stakeholder approach to research on climate change; ▪ Training on new and emerging methods and concepts of climate change learning for education planners and practitioners; ▪ Funding to support research on the various aspects of Climate Change in Zimbabwe; and, ▪ Enhance the Teaching and Learning of climate change at all levels of formal education	Education Environment Agriculture Health
National Training Institutions (non-formal/ non-academic) e.g.Public Service Training Centres Technical and Vocational Training Institutions	▪ Access to technical training materials to enhance capacity of trainers; ▪ Continuous access to funds for training and education; ▪ Develop training and learning methods for continuous professional development for different sectoral professionals and well as non-formal learning; and, ▪ Training on adapted/ stress tolerant crop and livestock development and farming practices.	Education Agriculture Health
Traditional Leaders and Religious Organisations	▪ Ensure that climate science information is packaged into simple and easy-to-understand messages that will reach the wider public including translation into vernacular; ▪ Strengthen engagements and involvement of the local communities in climate change initiatives from planning and development through to implementation to foster ownership and sustainability of these initiatives; ▪ Effective and adequate platforms for sharing information on climate change; ▪ Development of appropriate and up-to-date early warning systems that incorporates indigenous knowledge; ▪ Increase access to training especially for women and youths; ▪ Basic and easy-to-understand information on climate-smart farming methods; and, ▪ Advocacy for Climate resilient infrastructure Development	Education Environment Agriculture
Media	▪ Training media personnel on good environmental reporting including climate change issues; ▪ Carry out regular information-sharing workshops to update media personnel on for example emerging issues and on-going initiatives, decisions of the Conferences of the Parties	Energy Education Environment Health Agriculture

Stakeholder Group	Capacity Building Needs Assessment	Priority Sectors Covering these gaps in the Strategy
	and other key climate change agreements and milestones both at the international level and national levels; ▪ Access to critical information on climate change so as to keep them abreast with the trends and new emerging issues; ▪ Media climate change awareness seminars in all regions for all media houses both print and electronic; and, ▪ Engage media personnel in all climate change forums and national/ international conferences	
Private Sector (Business and Industry Including Mining)	▪ Interaction between various business activities and climate change; ▪ Disseminate information on how climate change affects business and profit; ▪ Capacity enhancement training for business leaders; ▪ Information on climate change related business opportunities; ▪ Structure attractive and appropriate incentives that attract the private sector investment into climate change related initiatives, and business opportunities; ▪ Promotion of climate-smart energy solutions through evidence based research for industry; and, ▪ Climate change awareness seminars for businesses and industry players	Energy Education Agriculture
Non-Governmental Organisations / Civil Society Organisation	▪ Training and capacity building on issues of climate change mitigation and adaptation; ▪ Training on Climate Smart Agriculture techniques to upscale in their constituencies; ▪ Training on up-to-date trends on climate change; ▪ Development and exchange of information, educational and communication materials and equipment for public awareness on climate change; ▪ Sharpen advocacy techniques to ensure effectiveness at the national and sub-national levels; and, ▪ Strengthen institutional capacity for providing timely early warning systems.	Energy Education Environment Agriculture Health
Health Institutions and Professional Bodies e.g Environmental Health Profession Councils, Zimbabwe Medical Association, Nurses Council	▪ Access to funds for research into climate related health risks; ▪ Strengthen health resilience to climate change; ▪ Raising awareness on general climate change issues and the effects of climate change on health; ▪ Mainstream climate change in the health sector; ▪ Carry out health assessments that pay equal attention to both sustainable development and climate change; ▪ Enhance monitoring programmes and training of health officers on the distribution and progress of epidemics associated with climate change; and ▪ Expand health facilities and networks to remote areas by building more clinics and disaster reduction centres in areas prone to climate induced disasters.	Health Environment Education

SECTION 4

STRATEGY VISION, STRATEGIC PRIORITIES AND MEASURABLE TARGETS/ OBJECTIVES

A National Climate Change Learning Strategy is a powerful tool to support the implementation of NDCs and NAPs, as well as other relevant plans for addressing climate change. Given the linkages between climate change and development, it also contributes to the achievement of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. The Strategy provides a strategic and comprehensive framework which identifies critical learning and skills development needs in key climate-related sectors as highlighted in the country's NDC, NAP and other climate related strategies and policies. It also addresses challenges to existing training and educational systems in order to increase learning opportunities and reach all relevant stakeholders.

This strategy will help to inform Government on how to strengthen capacity building at all levels (Systemic, Individual and Institutional; refer to Figure 1.1), learning and skills development. This is also a huge step towards the achievement of national climate change objectives as highlighted in the National Climate Policy, National Climate Change Response Strategy and other climate change related strategies and policies. The Strategy will be implemented from 2020 up to 2030 with short, medium and long term learning actions.

4.1 Vision

To create "a climate change literate, responsive and resilient nation by 2030."

4.2 Mission

To achieve a climate change resilient nation, guided by science, research, education and communication for decision support.

4.3 Goal

To ensure mainstreaming of climate change education and learning strategies in all relevant social and economic development initiatives at national and sectoral levels through multi-stakeholder engagement and participation.

4.4 Strategic Objectives

- Mainstream climate change in all education curricula and develop tailor made climate change resource books for educators at all levels;
- Facilitate enhanced teaching/ learning of climate change in both formal and informal institutions;
- Promote innovations and skills development in climate change mitigation and adaptation across all sectors of the economy;
- Ensure gender is mainstreamed in all climate change management interventions;
- Increase collaboration amongst government entities, research and extension workers, Civil Society Organisations (CSOs), private sector and farmers' groups;

through participatory information exchange methods; and,

- Mitigate the negative impacts of climate change, enhance adaptive capacity and build resilience.

4.5 Pillars

The National Climate Change Learning Strategy has four pillars which include:

Pillar 1: Capacity to effect:

- Adaptation and mitigation.
- Climate change communication.
- Education and raising awareness.
- Research and development.
- Appropriate institutions to address climate learning change issues.

Pillar 2: Governance framework:

- Institutions.
- Networks.

Pillar 3: Finance and Investment:

- Partnerships.
- Local and International Financing.

Pillar 4: Communication and advocacy:

- Information management and dissemination.
- Sector- and level-specific information, education and communication materials

4.6 Guiding Principles

Zimbabwe's National Climate Learning Strategy is guided by the following Guiding Principles:

- Strengthen and mainstream climate change into all levels of education and learning curricula both in the Formal and non-formal education including on the job training for both the public and private sector;
- Country-driven and predicated on national development priorities through a suitable mix or combination of learning activities that include on the job training, refresher courses, mentorship and coaching by experts in the various sectors;
- Professional learning, capacity and skills development to equip professionals with knowledge and skill enabling them to achieve in climate change response;
- Participation and engagement of all stakeholders in response to cli mate change is important and must include stakeholder in the public and private sector as well as those in different communities especially the sensitive communities and vulnerable members of the community;
- Zimbabwe should engage in climate change response which is knowledge and evidence based that incorporates indigenous knowledge systems, cultural norms and interfaces with science; and,
- The Zimbabwean citizenry should have access to information on climate change impacts and or opportunities to allow for informed decision in order to mitigate and adapt to climate change.

SECTION 5

ACTION PLANS FOR THE NATIONAL CLIMATE CHANGE LEARNING STRATEGY

Climate change is affecting all socio-economic sectors in Zimbabwe. The Government intends to make all socio-economic sectors of the country climate proofed. Climate change education, training and awareness remains critical in pursuing the climate change agenda and achieving the government's climate change objectives. One of the key national objectives is to increase sectoral and public awareness campaigns on climate issues.

The country seeks to build resilience to climate change whilst ensuring sustainable development in recognition of its climate change vulnerability and national circumstances. Through stakeholder consultations and guidance from national documents such as the Nationally Determined Contributions, National Climate Policy and National Environmental Policy and Strategies, among many other policies and strategies. The country has identified five (5) priority sectors to be focused on.

The sectors that were prioritised for action are presented in Table 5.1:

Table 5.1: Sectors prioritised for UN CC:Learn Project

	SECTOR	RATIONALE / BASIS FOR SELECTION	SUPPORTING POLICY/ STRATEGY
1	ENERGY	The country, in its Nationally Determined Contributions (NDCs), pledged to reduce energy related emissions by 33% below the projected business as usual by 2030.Renewable and clean energy alternatives are being promoted in the country, unfortunately not all citizens are aware of available technologies.	Nationally Determined Contributions National Climate Policy National Climate Change Response Strategy Renewable Energy Policy National Biofuels Policy
2	AGRICULTURE	The adaptation component of the NDCs focuses on Agriculture; Zimbabwe is an agro-based nation, therefore any action to strengthen the agriculture sector is welcome; and, The country produced a climate smart agriculture manual and it has to be implemented and promoted.	Nationally Determined Contributions National Climate Policy National Climate Change Response Strategy National Agriculture Policy Framework Zimbabwe Agriculture Investment Plan Climate Smart Agriculture Manual
3	ENVIRONMENT	The environment is very important to the Zimbabwe Economy. It has to be safeguarded for the benefit of present and future generations.	Environmental Management Act Nationally Determined Contributions National Climate Policy National Climate Change Response Strategy National Environmental Policy and Strategies
4	EDUCATION	Education is critical to human development and pursuing the climate agenda	National Climate Policy Education Act Education New Curriculum
5	HEALTH	Health for all people is critical in pursuing the climate change agenda and learning objectives	National Climate Policy National Climate Change Response Strategy

Energy

The energy sector stands at the centre of the climate change discourse in Zimbabwe, because it is the major contributor of greenhouse gas (GHG) emissions. It contributes the biggest share (>48%) of the country's total GHG emissions, followed by agriculture (>40 per cent), industrial processes (>5%) and waste (3%) (Zimbabwe's Third National Communication, 2017). Although Zimbabwe contributes a mere 1.7% to the total GHG emissions of the African continent, it is still important for future development planning to take cognisance of this low carbon footprint and to preserve it.

Greenhouse gas emissions from the energy sector emanate from combustion of carbon-based fuels as well as fugitive emissions during coal mining and handling processes. Carbon dioxide (CO_2) and methane (CH_4) are the two most important GHGs emitted by the energy sector. Nitrogen oxides (NOx) and carbon monoxide (CO) are also emitted from combustion of carbon-based fuels, especially from vehicles and stationary fuel powered engines.

There is need to build and strengthen the capacities of key sectors and government stakeholders in GHG accounting and monitoring and reviewing of the performance of the sector towards achieving the reduction as stated in the Nationally Determined Contributions (NDC). This can be achieved through training, capacity building, skills development done in different sectors and across the different genders.

Strategies

a) Strengthen low carbon energy provision and use through education and training;
b) Create awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy efficiency;
c) Promote research and development in the renewable energy sector;
d) Reduce greenhouse gas emissions in industry, and at household level through demand side management and energy saving techniques; and,
e) Strengthen energy planning and modelling.

Table 5.2 Action Plans for the Energy Sector *Short term 1 - 2 years, Medium Term 3 - 5 years, Long Term 6 - 10years*

5.2 a: Action and policy guide towards achieving energy efficiency								
PRIORITY SECTOR	**ENERGY**							
National Priorities	To reduce energy-related emissions by 33% per capita below the projected business as usual by 2030							
Main Gap	Limited translation of policies into actions towards achieving intended results i.e renewable energy and energy efficiency adoption							
Sector strategies	Strengthen low carbon energy provision and use through awareness, education and training							
Action	**Short -term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Promoting minimum energy performance standards to reduce emissions and increase efficiency	Set up climate change working group effective climate change learning across the energy sector			Min of Energy and Power Development	Ministry of Environment, Climate, Tourism and Hospitality Industry (MECTHI) Min of Primary and Secondary Education (MoPSE) Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development (MHTEISTD) Ministry of Finance and Economic Development (MoFED)	220, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Business and Industry (B&I) Academia (Formal All levels) ; Traditional leaders (TL) Non-Governmental Organisations (NGOs) National Training Institutions (NTIs) Religious Organisations (RO) Regulatory authorities (RA) Professional bodies
	Promote minimum energy performance standards							
	Capacity enhancement training for energy users							
		Training on energy efficiency improvement						
	Regional and international documentation of performance standards for incorporation into curricula							
Content development for CC learning in the energy sector	Disseminate relevant information and resources to show evidence of the relationship between CC and development in the energy sector			Min of Energy and Power Development	MECTHI MoPSE MHTEISTD MoFED	100, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Academia (Formal All levels); (TL) NGOs; Professional bodies
	Mobilisation of funds to support climate change learning in the energy sector							
	Improve to access to and prioritisation of funds with regard to industry specific climate change learning							

5.2 b: Knowledge and awareness strategies on improving e cient use of energy								
National Priorities	To reduce energy - **related emissions by 33% below the projected business as usual by 2030** Raise awareness levels of renewable energy technologies and available incentives							
Main Gaps	·Less knowledge and awareness strategies on improving e cient use of energy technologies ·Limited research in the renewable energy sector							
Sector strategies	·Create awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy e ciency. ·Promote research and development in the renewable energy sector. ·Reduce greenhouse gas emissions in industry, and at household level through demand side management and energy saving techniques. ·Strengthen energy planning.							
Action	**Short - term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Educate the public on the e icient use of renewable energy and energy e iciency	Develop a handbook on e icient use of renewable energy and energy e iciency			Min of Energy and Power Development	MECTHI MHTEISTD Ministry of Transport and Infrastructure Development (MoTID) ZESA; ZERA; EMA Ministry of Women A airs (MWA), NGOs and CSOs	120, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Communities/Households Schools Smalland Medium Enterprises Farmers
	Develop IEC materials for education and public awareness on renewable energy and energy e ciency							
	Development an innovation sharing platform with the consumers and policy enablers for such							
	Increase access to e-learning tools (including mobile learning applications) and online community of practises							
	Organise forums and seminars on renewable energy and energy e ciency							
Educate people in their local language on renewable energy sources and initiatives e.g. biogas, solar, energy e iciency, through outreaches in schools and communities in all the provinces of Zimbabwe	Public awareness campaigns. Radio programmes and Interactive and live Television talk shows Develop IEC materials in di erent local languages for education, training and public awareness Develop an innovation sharing platform with the consumers and policy enablers for such			Min of Energy and Power Development	MECTHI MoTID MWA MHTEISTD ZESA ZERA EMA NGOs and CSOs	140, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Communities/Households Schools Smalland Medium Enterprises Farmers

Strengthen and Promote Research and Development in the Renewable Energy Sector through capacity building on proposal writing skills, training of trainers on various impacts of climate change on the energy sector at national and subnational levels	Training workshops on proposal writing Training on research skills and methodologies Pilot research programmes on energy efficiency Promote innovation trials and research for alternative energy from informal through to formal development Develop an interface for scientific and indigenous knowledge as a means of tapping, analysing and documenting how communities are working to mitigate and adapt to adverse climate impacts. Set up climate change focal persons for effective climate change communication to all stakeholders Exchange learning visits		Ministry of Energy and Power Development	MECTHI MHTEISTD MWA Ministry of Health Ministry of Information ZERA; EMA; NGOs and CSOs; Ministry of Finance ; SADC organs	120, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Staff from Line Ministries Staff from Parastatals Academia Private Sector Staff from Civil Society Organizations
Strengthen energy planning	Collate information on present energy forms , use, demand and sources		Min of Energy and Power Development	MECTHI MoTID MWA MHTEISTD ZESA ZERA EMA NGOs and CSOs	240, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Staff from Line Ministries Staff from Parastatals Academia Private Sector Staff from Civil Society
	Develop participatory local energy saving protocols						
	Facilitate mapping and assessment of local energy resources						
	Facilitate development of and dissemination of energy plans to all sectors						
	Encourage adoption of energy plans through enabling policy framework						
Institutional frameworks (policies) for effective energy management	Develop a coordinated working group set to disseminate energy sector developments and impacts on CC mitigation		Min of Energy and Power Development	MECTHI MoTID MWA MHTEISTD ZESA ZERA EMA NGOs and CSOs	80, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Staff from Line Ministries Staff from Parastatals Academia Private Sector Staff from Civil Society
	Develop materials for public education and awareness and incorporation into CC handbook						
	Appoint energy champions to promote alternative clean energy alternatives in communities						
Disseminate information on the application of	Continuous training on skills development towards the application of the minimum energy performance standards		Min of Energy and Power Development	MECTHI MoTID MWA	240, 000	Government Treasury; UNEP; Development	Staff from Line Ministries Staff from Parastatals Academia

the minimum energy performance standard through training for private and public sectors	Regional and international documentation of performance standards for incorporation into curricula and operational procedures Print , Digital Visual and audio awareness campaigns on minimum energy performance standards Mobilisation of funds to support adoption and implementation of minimum energy performance standards as well as research into alternative energy options Mobilisation of funds to support climate change research into alternative energy Improve to access to and prioritisation of funds with regard to industry specific CC research		MHTEISTD ZESA ZERA EMA NGOs and CSOs		Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Private Sector Staff from Civil Society The marginalised and Vulnerable
Communicate energy performance standards and facilitate reduction in emission	Facilitate establishment of a climate change working group focused on reducing greenhouse gas emissions in the energy sector and improving efficiency Promote training and information dissemination on energy performance standards Promote resource mobilisation for innovations towards increasing energy efficiency and reducing emissions Promote resource mobilisation for innovations towards increasing energy efficiency and reducing emissions Promote continuous training on skills development on energy efficiency		Min of Energy and Power Development	Ministry of Environment, Climate, Tourism and Hospitality Industry Ministry of Transport and Infrastructure Development ZESA ZERA EMA Ministry of Women Affairs, Gender and Community Development Ministry of Higher and Tertiary education NGOs and CSOs	120, 000	Government Treasury; UNEP; Development Partners; UN CC: Learn, Private Sector, NGOs and CSOs	Staff from Line Ministries Staff from Parastatals Academia Private Sector Staff from Civil Society

Agriculture

In Zimbabwe sustainable development and adaptation to climate change strongly hinges on a robust agricultural sector that supports household and national food self-sufficiency, providing inputs for industry, and reducing negative pressure on the environment. With over 70 per cent of Zimbabwe's employment directly or indirectly attributable to the agricultural industry and having the national agricultural production largely relying on rain-fed agriculture, it is one of the most vulnerable sectors to climate change and variability. There is therefore need for transformational changes in the country's agricultural systems in the face of the likely impacts of climate change that the country faces. Zimbabwe needs to sufficiently harness available scientific and indigenous knowledge and technologies to increase productivity; stimulate industrial growth and be competitive on the regional and global markets and to support diversified livelihood options for the different categories of its people.

Zimbabwe is anticipated to have an increase in erratic rainfall seasons, characterized by unpredictable lengths of seasons; high temperatures; alternating heavy rain and dry spells; and variable rainfall amounts (Third National Communication, 2017), which presents new challenges to the majority of farmers in the absence of appropriate response measures. The impacts of climate change on rural livelihoods are likely to affect future migration patterns and could compel people to move. There is therefore need to come up with integrated response strategies across the different development sectors if the current and future climate threats are to be addressed. Ultimately, the emphasis for response to climate change in agriculture should be on adaptation yet in the same vein embracing mitigation, and recognising that sound options for adaptation will translate to better mitigation measures. This is achievable by having sound education, capacity building, skills development and learning initiatives tailor-made to effectively respond to the needs of the sector.

Strategies

a) Strengthen the sector's capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging development challenges arising from increased climate change and variability;

b) Develop frameworks for sustainable intensification and commercialization of agriculture at different scales across agro-ecologies through efficient extension services provision;

c) Strengthen the collaboration in research between research institutions, industry, extension workers, farmers' groups and other relevant sectors to improve early warning systems and improve cropping season quality, rangelands conditions, mitigation of the impacts of droughts, floods, disease/pest outbreaks and wildlife movement in order to enhance farmer preparedness and improve productivity; and,

d) Promote the adoption of climate smart agriculture practices in all farming communities of Zimbabwe.

Table5.3 Action Plans for the Agricultural Sector *Short term 1-2 years, Medium Term 3- 5 years, Long Term 6 -10years*

5.3a: Improving knowledge on climate change aspects and Climate Smart Agriculture through participatory information exchange **methods**								
PRIORITY SECTOR	**AGRICULTURE**							
National Priorities	Training of research o cers Training of trainers to be able to disseminate knowledge and information on Climate Change and Climate Smart Agriculture							
Main Gap	Lack of adequate knowledge on climate change aspects and climate smart agriculture							
Sector strategies	·Strengthen the sector's capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging development challenges arising from increased climate change and variability. ·Promote the adoption of climate smart agriculture practices in farming communities							
Actions	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Research into climate smart Agriculture	Disseminate relevant information and resources to show evidence of the relationship between CC and agriculture development in the sector			Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED FAO	200, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Department of Livestock Private Sector CSOs
	Mobilisation of funds to support climate change research into climate smart agriculture							
	Mobilisation of funds to support climate change research into climate smart best practices							
	Improve to access to and prioritisation of funds with regard to industry specific CC research							
Strengthen the academic curriculum on Climate change	Facilitate advanced sectorial research at all institutions					300, 000		
	Mobilise resource for extension services for product development and innovation sharing on climate smart technologies							
Strengthen the Agricultural Colleges curriculum on climate change through additional courses that are best suited to the di erent sub-	Technical working Group meetings for designing of new curriculum that incorporates climate change components into the curriculum of Agricultural Colleges			Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges;	100, 000		Agricultural Colleges; Ministry of Agriculture; Universities; Agritex

sectors in the Agriculture sector				All State and Private Universities; UN agencies FAO			Department of Livestock Private Sector CSOs
Developing and pretesting training materials on climate change and CSA that are gender sensitive, user specific, simplified in all local languages for use by Farmers and Extension O icers, after conducting training of trainers courses for Extension o cers and Lead Farmers	Series of workshops for developing of the Teaching guides and Learners guides with Information on Climate Change Pilot Testing the guides Review meetings for finalisation of the guides		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies FAO	150, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Private Sector CSOs
Integrating scientific knowledge with the indigenous knowledge system (IKS)	Designing of protocols for the integration of scientific knowledge and indigenous knowledge systems		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies FAO	80, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Department of Livestock Private Sector CSOs
5.3b: Enhance climate change mitigation and adaptation in Agriculture								
National Priorities	·Up scaling provision of climate information (extension) services and climate smart agricultural techniques through planning, cropping choices and livestock choices, disaster management							
Main Gaps	·Low adaptive capacity and mitigation capacity leading to low agricultural production ·Low agricultural production, low adaptive capacity to climate change							
Sector strategies	·Develop frameworks for sustainable intensification and commercialization of agriculture at di erent scales across agro-ecologies through e cient extension services provision.							
Actions	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Promote proven CSA	Profile Climate smart activities for dissemination			Ministry of Lands, Agriculture,	MECTHI MHTEISTD MoPSE	200 000	Government Treasury; User fees,	Agricultural Colleges

	Align different sectors towards particular strategies for maximum impact and efficiency Promote establishment of Climate Champions Preparation of IEC material focusing on CSA best practices Disseminate relevant information and resources to show evidence of the relationship between CC and development in the sector Mobilise resource for extension services for product development and innovation sharing on climate smart technologies		Water and Rural Resettlement	MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies FAO		Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Ministry of Agriculture Universities Agritex Department of Livestock Private Sector CSOs
To improve extension worker to farmer ratio through capacity and skills development, Increase the number of lead farmers in each community		Training of more competent extension officers	Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA FAO	200 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Agritex Department of Livestock Private Sector CSOs
To improve mobility, communication		Purchasing communication equipment for extension workers	Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA FAO	200 000		
To increase the knowledge of communities on climate-smart practices such as avoiding wetland cultivation, improve water harvesting techniques,	Hands-on Farmer Training Establishment of famer Field Schools/ Field Based Learning Centres		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA	220, 000	Government Treasury; User fees, Development Partners and UN	Agricultural Colleges Ministry of Agriculture Agritex

agricultural cropping choices, livestock choices, etc. through training and establishing Farmer Learning Centres.				Agricultural Colleges; All State and Private Universities; UN agencies FAO		Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Department of Livestock Private Sector CSOs	
5.3c: Linkages amongst research and extension workers and farmers' groups								
National Priorities	Increasing level of stakeholder collaboration in the agriculture sector (research extension workers, media, commercial farme rs, communal farmers and members of communities in the society and the vulnerable groups).							
Main Gaps	·Disjointed research and extension ·Low levels of collaboration in research amongst research institutions, farmers groups, institutions of higher learning							
Sector strategies	Strengthen the collaboration in research between research institutions, industry, extension workers, farmers' groups and other relevant sectors to improve early warning systems and improve cropping season quality, rangelands conditions, mitigation of the impact s of droughts, floods, disease/pest outbreaks and wildlife movement in order to enhance farmer preparedness and improve productivity.							
Actions	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimate d Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Strengthen the academic curriculum on climate change	Mobilise resource for research and product development			Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies FAO	240, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Department of Livestock Private Sector CSOs
	Strengthen climate negotiation programming and resource mobilisation skills through training and experience sharing							
	Promote Industrial learning and knowledge exchange on the effects of climate change and CSA on development.							
		Mainstreaming CC Learning into Human Capacity Development						
	Documentation of best practices for adoption into curricula and extension services							
Support coordination among stakeholders through research and extension	Set up climate change focal persons for e ective climate change communication to all stakeholders			Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges;	220, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Department of Livestock
	Mobilisation of funds to support climate change research into Climate Smart best practices							

	Improve to access to and prioritisation of funds with regard to industry specific CC research Develop protocols for cataloguing and documentation of best practices		All State and Private Universities; UN agencies FAO			Private Sector CSOs
Stakeholder mapping and situational analysis	Meeting or Workshop		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies	60, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Agritex Department of Livestock Private Sector CSOs
Consultation and sensitization of stakeholders on areas prioritized for research in agriculture	Meeting or Workshop		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies	60, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Agritex Department of Livestock Private Sector CSOs
Establish a framework of collaboration and protocols for carrying out the research	Meeting or Workshop		Ministry of Lands, Agriculture, Water and Rural Resettlement	MECTHI MHTEISTD MoPSE MoFED MWA Agricultural Colleges; All State and Private Universities; UN agencies	60, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Agricultural Colleges Ministry of Agriculture Universities Agritex Department of Livestock Private Sector CSOs

Environment

Climate change has affected so many facets of the lives of people in Zimbabwe and communities are living with its impacts. There is a growing need and direct call for mitigation and adaptation. Zimbabwe's contribution to global GHG emissions is approximately 0.05 percent which is insignificant, yet the country has suffered the brunt of climate change in recent years especially through the increased frequency of droughts, floods and epidemics. These make climate change learning a necessity.

Various activities are being implemented to reduce the amounts of GHGs emitted, and to promote a green economy. There is need to build the capacity of our communities to be able to adapt and reduce the impact of climate change. To be able to achieve this there should be a vast array of strategies and actions that can be carried out to ensure that our communities are better prepared to deal with climate change including the use of indigenous knowledge to help deal with some of the impacts of climate change. The following issues are identified as pertinent for the development of Zimbabwe's Climate Change Learning Strategy.

Strategies

Public Awareness-raising and Communication

- a) Communicate climate change messages incorporating indigenous knowledge systems;
- b) Promote and strengthen stakeholder awareness on causes, impacts and response (adaptation and mitigation);
- c) Raise awareness on climate change, environmental conservation and sustainable use of natural resources;
- d) Encourage sharing of information and networking on climate change and environmental conservation issues at local, regional and international levels; and,
- e) Promote resource mobilization through development of bankable proposals in all sectors.

Table 5.4: Action plans for the Environment Sector *Short term 1-2 years, Medium Term 3 - 5 years, Long Term 6 -10 years*

5.4a: Communicate climate change messages incorporating indigenous knowledge systems								
PRIORITY SECTOR	**ENVIRONMENT**							
National Priority	Identify and promote indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels.							
Main Gaps	·Limited incorporation of IKS to respond to climate change and environmental degradation ·Increase in environmental degradation levels at community levels							
Sector Strategy	·Communicate climate change messages incorporating indigenous knowledge systems ·Promote environmentally friendly conservation ways and nature based solutions to climate change challenge ·Mainstream environment/ climate change education in selected schools' e nvironmental clubs							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Develop communication and documentation protocols for CC learning	Translate CC information into actionable CC Learning actions			MECTHI MHTEISTD	MoPSE MoFED	160, 000	UNCC:Learn, UNDP, UNICEF, TREASURY	Business and Industry (B&I) Academia (Formal All levels) Traditional leaders (TL) Non-Governmental Organisations (NGOs) National Training Institutions (NTIs) Religious Organisations (RO) Regulatory authorities (RA) Professional bodies
	Documentation of environmental developments and innovations for incorporation into curricula							
	Training on the effects of climate change on development and migration-climate change nexus both in terms of drivers and e ects							
	Mobilisation of funds to support information dissemination on good environmental practices							
Mainstreaming the child friendly climate	Designing and production of Child Friendly IEC Materials			MECTHI	MoPSE Schools UNITAR	250, 000	UN CC:Learn, UNDP, UNICEF, TREASURY	Community Schools Media

change awareness material in Schools Environment Clubs for enhanced change education, communication and awareness				UNICEF UNESCO UNDP Konrad Adenauer Stiftung UNICEF			CSOs
5.4b: Documentation of the Indigenous Knowledge systems and best practices							
National Priority	Identify and promote indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels.						
Main Gaps	·Lack of relevant technical expertise in climate change management, environmental conversation and related areas ·Lack of a coordinated system to manage indigenous technologies, skills and practices						
Strategy	Encourage sharing of information and networking on climate change and environmental protection issues at local, regional and international levels.						
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Establish coordination systems to support indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels.	Set up mechanisms at national and sub-national level that promote the use of indigenous technologies and skills			MECTHI MHTEISTD	MoPSE MoFED	100, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UN CC:Learn, UNDP, Private Sector	Universities Agricultural Colleges Teachers Colleges Communities Agritex CSOs Traditional Leadership

Capacity building for relevant technical expertise in climate change and environmental conservation through trainings at national and subnational levels and E-courses o ered by various organizations that are relevant.	Training workshops at National and Sub-national level Conducting E -Courses in collaboration with other institutions that o er such courses On the Job training for workers in public and Private sector		MECTHI MHTEISTD	MoPSE MoFED	300, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UN CC:Learn, UNDP, Private Sector	Government Departments Private Sector CSOs Communities Local Authorities Tertiary Institutions of Higher learning
5.4c: Translation of climate change information into local indigenous languages							
National Priority	**Identify and promote indigenous technologies, skills and practices relevant in responding to climate change at local levels.**						
Main Gap	·Limited or lack of proper documentation of the IKS best practices						
Strategy	a) Promote and strengthen stakeholder awareness on adaptation to and mitigation of climate change through the integration of lessons learnt from application of Indigenous knowledge systems						
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Create protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies by communities, NGOs, CSOs	Meetings or workshop to develop protocols for cataloguing and documentation of Indigenous Knowledge Systems			Ministry of Lands, Agriculture, Water and Rural Resettlement (MLAWRR) MECTHI	MWA MHTEISTD MoPSE MoFED All State and Private Universities & Colleges UN agencies NGOs and CSOs	60, 000	Government Treas ury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Universities Agricultural Colleges Teachers Colleges Communities Agritex CSOs Traditional Leadership

5.4d: identifying and promoting indigenous technologies, skills and practices relevant to responding to climate change and environmental degradation at local levels								
National Priority	**Identify and promote indigenous technologies, skills and practices relevant in responding to climate change at local levels.**							
Main Gaps	Lack of Translation of climate change information into vernacular							
Strategy	Craft and Implement a communication strategy for raising awareness on climate change.							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Support the translation of information on the impacts and opportunities of climate change in agriculture into the local languages	Creating a working group of translators to work on translation of information and creating of packages for various communities with di erent language inclinations			MLAWRR	MECTHI MHTEISTD MWA MoPSE MoFED Agricultural Colleges All State and Private Universities UN agencies	114, 000	Government Treasury; User fees, Development Partners and UN Agencies such as FAO, UNCC:Learn, UNDP, Private Sector	Universities Agricultural Colleges Teachers Colleges Community Agritex CSOs Traditional Leadership
5.4e: Promote resource mobilizatio n through development of bankable proposals in all sectors								
National Priority	Capacity building for resource e mobilization to access international climate change financing							
Main Gaps	Lack of capacity to develop bankable proposals to access international climate change financing							
Strategy	Strengthen proposal writing skills of the stakeholders in the priority sector for better resource mobilization for improved climate change response							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimate d Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Capacity building for relevant expertise in climate change proposal development through training on proposal	Training on Proposal Writing techniques Training on Completion of di erent funding Templates			MECTHI	MoFED Infrastructure Development Bank of Zimbabwe (IDBZ), Green Climate Fund (GCF), Global Environment Facility (GEF),	60, 000	Government Treasury; Development Partners and UN Agencies such as FAO, UN CC:Learn, UNDP, Private Sector, GCF, AfDB	Line Ministry Sta responsible for project development Private Sector CSOs Academia Local Authorities

writing skills to produce bankable proposals to access climate financing from international financing mechanism for stakeholders in Government Ministries and Parastatals, Academia, Private Sector, NGOs and CSOs				Adaptation Fund (AF), African Development Bank (AfDB), UN CC:Learn, United Nations Development Programme (UNDP) EMA			

Education

Education is a powerful vehicle for imparting new ideas, especially to the youth. The aim of using education to disseminate the climate change messages is to create a knowledgeable citizenry and foster a culture and behaviour that ensures the nation becomes climate change compliant. Zimbabwe has almost achieved universal primary education. It has a vast network of schools such that most young persons can be reached through the formal education system. Thus, all school going children at primary level could potentially receive climate change education to create the sustainable behavioural change needed to adapt to and mitigate climate change.

There has been a general view that the content of the curricula used in both primary and secondary schools does not adequately address climate change. This is because climate change has been taught as a small component of the curriculum in such subjects as Social Studies, Environmental Studies and Agriculture at Primary Level; and Geography, Agriculture, Science and Civic Education at Secondary Level. In response the Ministry of Primary and Secondary Education has developed a new competence-based curriculum in 2015 and materials for primary and secondary schools that strengthen existing teaching materials on climate change. It is being used from the early childhood development level up to 'Advanced-Level.'

The tertiary education sector is made up of teacher training colleges, agricultural training colleges, polytechnic colleges and universities. Currently, the teacher training colleges cover climate change issues as part of the career subjects which their graduates then teach at primary and secondary schools. As a result, there is need to mainstream climate change in the curricula so that the course content on climate change is broad enough and all students that go through teacher training will have opportunity to go through training on climate change aspects. The colleges will need to review the content of the career subjects such as Geography, Environmental Science, Physics and Civil Education and integrate climate change issues in a manner which promotes innovative thinking to foster development. The syllabus for agricultural colleges will also need to be reviewed.

There will be need for in-service training for those teachers already produced by these colleges so that their foundation on climate change issues can be strengthened. This also applies to national extension officers (e.g. Agricultural Extension, Environmental Management Agency), agro-service providers, and Civil Society Organizations personnel to enable them to implement action plans for climate change adaptation with communities. Regarding universities, each university has its own policy on what subjects to offer however there are initiatives by the Ministry of Higher and Tertiary Education, Science and Technology Development on standardising degree programs across all state universities. Climate change is taught as part of Geography and Environmental Studies or of Atmospheric Studies that include Meteorology and Climatology or is mainstreamed into other courses in the disciplines of Crop, Animal, Soil Sciences and Agricultural Economics at most Zimbabwean universities. There is also need to launch centres dedicated to disaster risk management particularly climate change issues. Thus a situational analysis of what aspects of climate change are included in the universities' curricula should be carried out as a starting point.

Currently there are no platforms for informal teaching of climate change issues. The out-of-school youths and vulnerable groups such as women, children and the disabled are not being reached by the formal climate change education. There is need to develop educational materials and to create platforms where the material is delivered to these groups. The materials should be based on indigenous knowledge infused with technical information and should be translated into as many local languages as possible. They should be delivered using different modes of communication including drama, road shows and mass media.

Climate Change Education and Training

a) Enhance the teaching and learning of climate change at all levels of education (formal and informal); and

b) Provide relevant training on climate change issues to educators and practitioners working in all formal learning institutions and informal institutions working with communities.

Table 5.5: Action plans for the Education Sector *Short term 1-2 years, Medium Term 3- 5 years, Long Term 6-10years*

5.5 a: Development of climate change resource books for teachers and lecturers in formal education systems								
SECTOR	**EDUCATION**							
National Priorities	Teacher/ lecturer resource book on climate change							
Main Gap	Inadequate tailor made climate change resource material for teachers and lecturers in formal education systems							
Strategy	Enhance the teaching and learning of climate change at all levels of education (formal and informal).							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Content development for CC learning	Conducting curriculum audits in terms of the content and process of climate change.			MoPSE MHTEISTD	MECTHI MoFED	120, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools
	Facilitating content development for curricula development							
	Convening of national workshops to fully integrate climate change into the academic curricula							
	Monitoring and evaluation of the teaching and learning of climate change.							
	Standardizing the teaching of courses throughout the country's universities , colleges, polytechnic colleges and vocational centres							
Recruiting content developers to develop resources book/teaching guide	Advertisement for Content Developers in the Newspapers and other relevant Media Development of resources book			MECTHI	MoPSED MHTEISTD EMA Sta associations UNICEF; MIET AFRICA; UNESCO; Ministry of Information and Publicity Media	100, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools

Material evaluation and quality assurance in respective ministries or by a technical working group	Validation exercises in the various line Ministries of the Resource Book			MECTHI	MoPSE MHTEISTD MoPSE EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	40, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools
Pilot testing of the resources book and printing for roll out	Pilot Testing the Resource book in schools and colleges Editing Type setting Printing of the Resource book			MECTHI	MoPSE MHTEISTD MoPSE EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	200, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools
Information dissemination or roll out to the various learning institutions in Zimbabwe	Printing and distribution of the books to all the ten Provinces to schools colleges and universities.			MECTHI	MoPSE MHTEISTD MoPSE EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	200, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools
Training on the effects of climate change on development and how to mainstream climate change into learning frameworks at	Conducting in-service training workshops for educators on the integrated climate change curriculum in all 10 provinces in the country			MECTHI MoPSE MHTEISTD	EMA UNICEF; MIET AFRICA; UNESCO – Ministry of Information and Publicity Media MoFED	250, 000	Government of Zimbabwe-financial support and implementing partners Financial institutions	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Schools

national and sub-national levels							Green Climate Fund (GCF) NGOs Publishing houses	
	Preparation of IEC and improved curriculum materials based on the findings of the needs assessment					40, 000		
	Continuous training on CC developments and in cooperation into education curricula					160, 000		
	Production of a teacher's guide to these materials for use in the classroom.					80, 000		
5.5b: Capacity building, skills and knowledge development in Informal/non-formal education								
National Priority area	Capacity building, skills and knowledge development in Informal/non-formal education							
Main Gap	·Deficiency of climate change knowledge and lack of synchronizing in the informal education curricula							
Sector strategy	Enhance the teaching and learning of climate change at all levels of education (formal and informal).							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Identifying climate change content gaps in the current curricula through a survey and review of current initiatives and documentation	Carry out a desk review of the current learning initiatives and what content they cover Carry out a survey in all institution of higher learning to identify gaps in content of climate change in their curricula			MECTHI	MoPSE MHTEISTD EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media Ministry of Youths	60, 000	Government of Zimbabwe Implementing partners Financial institutions Green Climate Fund (GCF) NGOs	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges
To integrate and broaden climate change issues across in the non-formal education sector through tailor	Workshops to review the current course materials that are currently in use in the non-Formal education sector Workshops with various sector Ministries to develop appropriate on the job training activities best suited to their contexts			MECTHI	MoPSE MHTEISTD MWA Ministry of Public Service EMA UNICEF; MIET AFRICA; UNESCO	95, 000	Government of Zimbabwe Implementing partners Financial institutions	Teacher Colleges Universities Polytechnics Agricultural Colleges

made on the job training, E-courses, and for use in Technical and Vocational Training Centres				Ministry of Information and Publicity Media		Green Climate Fund (GCF) NGOs Publishing houses	Technical and Vocational Training Colleges
Development and testing of curriculum for the non-formal education for use in all the priority sectors	Creation of Content appropriate for non-formal education Designing of teaching guides and aides to us in the education activities Pilot testing the curriculum and materials developed		MECTHI	MoPSE MHTEISTD MWA Ministry of Public Service EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	120, 000	Government of Zimbabwe-financial support and implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training College

5.5 c: Integration and broadening of climate change issues across higher and tertiary education curricula								
National Priority area	Mainstreaming Climate Change in the Higher and Tertiary Education Sector including Teacher Training in Zimbabwe							
Main Gap	·Deficiency of climate change knowledge and lack of synchronizing in the higher and tertiary education and teacher training cu rricula							
Sector strategy	Enhance the teaching and learning of climate change at all levels of education (formal and informal).							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Identifying climate change content gaps in the current curricula through a survey and review of curriculum development regulations for tertiary institution to in	Carry out an assessment of the current climate change curriculum being o ered in the various universities Identify gaps and synergies present in the current curricula Review the regulations for curricula development for Tertiary Institutions in Zimbabwe			MECTHI	MoPSE MHTEISTD MWA Ministry of Public Service EMA UNICEF; MIET AFRICA; UNESCO Media	100, 000	Government of Zimbabwe-financial support and implementing partners Financial institutions Green Climate Fund (GCF) NGOs	Line Ministries Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges

order harmonize and standardize the curriculum	Standardize Climate Change information in curricula to be offered by Tertiary institutions in Zimbabwe						Publishing houses	
Short term and long term review of tertiary level curriculum in order to incorporate relevant emerging climate change issues.	Review the curriculum every five years to incorporate any new or emerging climate change trends			MHTEISTD	MECTHI MoPSE EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	40, 000	Government of Zimbabwe-financial support and implementing partners Financial institutions	Line Ministries Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges
Capacity development for the lecturers for them to be able to deliver the learning activities/areas developed in the resource book through training of trainers courses and refresher courses		Training of trainers' workshop for rolling out the new curricula to lecturers On- the Job training for lecturers that are already in-service		MECTHI MHTEISTD	MECTHI MoPSE EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and Publicity Media	245, 000	Government of Zimbabwe-financial support and implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Line Ministries Teacher Colleges Universities Polytechnics Agricultural Colleges Technical and Vocational Training Colleges Private Sector
Mainstreaming Climate Change into Teacher Training in Zimbabwe	Carry out a review of the Teacher Training curriculum to identify the gaps and opportunities for mainstreaming climate change.			MECTHI	MoPSE MHTEISTD EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information	25, 000	Government of Zimbabwe-financial support and implementing partners; UN CC: Learn	Line Ministries Teacher Colleges Universities
Establishing of networking groups at provincial level	Convene provincial workshops to establish networking groups for climate			MECTHI	MoPSE MHTEISTD EMA	160, 000	Government of Zimbabwe-financial support and	Line Ministries Teacher Colleges Universities Polytechnics
to ensure sustainability	change education in Zimbabwe				UNICEF; MIET AFRICA; UNESCO Ministry of Information		implementing partners Financial institutions Green Climate Fund (GCF) NGOs Publishing houses	Agricultural Colleges Technical and Vocational Training Colleges

Health

Climate change alters the distribution and ecology of some disease vectors. Consequently, the spatial and temporal transmission of such diseases are also altered. Most assessments on health have shown great evidence on the progression of malaria, there is on-going work and debates on the attribution of malaria resurgence in some African areas. It is estimated between 700,000 to 2.7 million people die of malaria in sub-Saharan Africa each year and 75 per cent of these are children. The economic burden of malaria is estimated as an average reduction in economic growth of 1.3 per cent for those African countries with the highest burden. The social and economic costs of diseases are huge and include considerable costs to individuals and households as well as high costs at community and national levels.

At the more local level, vulnerability assessments carried out for Zimbabwe's Third National Communication to the UNFCCC (2017) used malaria, schistosomiasis and diarrhoea as indicator diseases to assess the potential impact of climate change on the health sector as their distribution and seasonal transmission normally relate with temperature and rainfall. The data used for malaria was from 1990 to 2014. However, schistosomiasis and diarrhoea showed no significant relationship with climate. This therefore suggests that the high prevalence and incidence rates of those diseases could be attributed to non-climatic factors, including limited access to safe water and sanitation, among others. Interventions to reduce these diseases should therefore also target water and sanitation issues. Nevertheless, under a changing climate, this relationship between rainfall, schistosomiasis and diarrhoea may become stronger.

There are other weather sensitive diseases that are also likely to spread faster with global warming. Intensified flooding could increase incidences of water borne or related diseases such as cholera, typhoid and bilharzia, while warmer temperatures will enhance the spread of meningitis. Reduced availability of safe water because of climate change may also increase the prevalence of diseases such as diarrhoea, cholera, typhoid, guinea worms and dysentery through use of unsafe water. These impacts are disproportionately affecting women (due to their productive and re-productive roles) and children. In some areas, warming is likely to translate into reduced crop yields and livestock productivity and water scarcity, which will concomitantly negatively affect human health and nutrition. During periods of climate-induced disasters (e.g. droughts and floods), the basic systems that ensure proper handling, preparation and storage of food are severely compromised, leading to frequent outbreaks of food borne illnesses.

Another potential impact of increasing average temperatures and changing weather patterns is the loss of biodiversity which might include medicinal plants, making them less available to communities that depend on them for treatment. There is therefore need to enhance the capacity of the health care sector to be able to effective come up with early warning and disease surveillance systems that alert populations to anticipated disease outbreaks would reduce vulnerability to a number of climate-induced epidemics and facilitate timely and decisive responses. They need also to be able to come up with links between certain occurrences of diseases and the changing climate. Over and above this there is need to come up with health 57

information that can be disseminated to the communities on how to predict as well and deal with certain health challenges that are attributable to climate change so as to have an informed citizenry.

Good health is a pillar of Zimbabwe's development. For climate response to be effective, it is important to understand the vulnerability of the health sector to climate change and variability. In this regard, there is need to:

Strategies

- a) Strengthen capacity for monitoring human health under changing disease coverage and epidemics due to climate change;
- b) Build resilience against climate change sensitive diseases through education and learning;
- c) Enhance institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society;
- d) Promote climate proofing investments for health and create a conducive environment for the use of weather-indexed insurance; and,
- e) Understand the impacts of climate change on women, children, youth and people living with disabilities in Zimbabwe and create an enabling environment that prevents harm to these vulnerable groups emanating from pressures of these impacts.

Table 5.6: Action Plans for the Health Sector *Short term 1-2 years, Medium Term 3- 5 yeas ,Long Term 6-10years*

5.6a: Climate Change knowledge, capacity building and skills development in the health sector								
PRIORITY SECTOR	**HEALTH**							
National Priority	Capacity building, skills and knowledge development in the Health sector							
Main Gap	Lack of climate change knowledge and skills in health education and training							
Sector strategy	Enhance the teaching and learning of climate change at all levels of health education (formal and informal).							
Action	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Develop communication and documentation protocols for CC learning	Develop tracking systems on changes in disease incidence due to CC			Min of Health and Child Care (MoHCC) MHTEISTD	MECTHI Health Institutions MoFED	300, 000	Government of Zimbabwe Implementing partners Private Sector NGOs UN Agencies (UNITAR, WHO, UNICEF) Development Partners; Private Sector; CSOs,	Business and Industry (B&I) Academia (Formal All levels) Traditional leaders (TL) Non-Governmental Organisations (NGOs) National Training Institutions (NTIs) Religious Organisations (RO) Regulatory authorities (RA) Professional bodies
	Develop education Kit on Climate Change packaged for di erent levels of health levels							
	Translate CC information into actionable learning tools at all stages of health education							
	Documentation of health developments and innovations for incorporation into curricula							
	Training on the e ects of climate change on development and how to mainstream CC into developmental planning at sectorial level							
Review, Strengthen and Mainstream Climate change into the Curriculum of training for key health personnel such as the	Carry out a review of the current curricula for health sector training for di erent sub-sectors in the Health Sector such as in Nursing, Environmental Health etc.			MoHCC	MECTHI, Health Professionals Associations MHTEISTD EMA UNICEF; MIET AFRICA; UNESCO Ministry of Information and	40, 000	Government of Zimbabwe Implementing partners Private Sector NGOs UN Agencies (UNITAR, WHO, UNICEF)	Ministry of Health, Schools of training Polytechnics

nursing sta in nursing schools as well as environmental health personnel				Publicity Media-publicity Civil Society Organizations; Private Sector; Communities.		Development Partners; Private Sector; CSOs,	
Develop Training Manuals for Health Professionals for inclusion in their training curricula	Develop tailor-made training manuals for use in training of doctors, nurses and other medical personnel		MoHCC	MECTHI; Health Professionals Associations; MoPSE MHTEISTD EMA	140, 000	UNITAR, Treasury, UNICEF, UNDP, GF	Ministry of Health, Schools of training Ministry of Higher and Tertiary Education Polytechnics Higher Education Examinations Council
Awareness workshops for health professionals in their health colleges and health centres	Carryout climate change awareness workshops for health professionals in every health institution (hospital, clinics and health centres) and health colleges		MECTHI MoHCC	Health Professionals Associations MHTEISTD EMA UNICEF, MIET AFRICA, UNESCO	280, 000	UNITAR, Treasury, UNICEF, UNDP, GF	Ministry of Health, Schools of training Ministry of Higher and Tertiary Education Polytechnics
5.6b: Capacity building, Skills and knowledge development in the Health Sector							
National Priority	Capacity building, skills and knowledge development in the Health sector						
Main Gap	·Lack of climate change knowledge and skills in health education and training						
Sector strategy	**a)** Build resilience against diseases that occur because of impacts of climate change through education and learning. **b)** Enhance institutional capaci ties for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society.						
Actions	**Short-term activities**	**Mid Term activities**	**Long Term activities**	**Lead Agency**	**Cooperating Agencies**	**Estimated Budget (USD)**	**Potential Source For Resources Mobilization**	**Audience**
Develop communication and documentation protocols for CC learning	Facilitate development of surveillance systems on changes in disease incidence due to CC			MECTHI MoHCC	MHTEISTD MFED	200, 000	Government of Zimbabwe Implementing partners Private Sector NGOs UN Agencies (UNITAR, WHO, UNICEF)	Academia (Formal All levels); (TL) NGOs; Professional bodies
	Translate CC information into actionable learning tools at all stages of education							
	Documentation of health developments and innovations for incorporation into curricula							
	Training on the effects of climate change on development and how to							

	mainstream CC into developmental planning at sectorial level						
Climate risk assessment	Develop risk screening tools that enable rapid risk assessment across sectors of the economy		MECTHI MoHCC	MHTESTD MFED	150, 000	Government of Zimbabwe Implementing partners Private Sector NGOs UN Agencies (UNITAR, WHO, UNICEF) Development Partners; Private Sector; CSOs,	Academia (Formal All levels); (TL) NGOs; Professional bodies
	Promote periodic sector briefings on adaptation strategies						
	Develop technical guidelines for the assessment of climate impacts, evaluation of risks, identification and prioritisation of adaptation options, and monitoring and evaluation of adaptation measures						
	Conduct A climate impact assessment across all sectors						
	Conduct A climate vulnerability assessment in the health sector and across all sectors						
		Conduct A climate adaptation as assessment across all sectors					
Build capacity for both curative and preventive staff to be able to link diseases to the effects of the changing climate for example consequence of increased temperatures through continuing education and continuous professional development seminars and training for health professionals	On the Job training for health professionals to enable them to link climate change to prevalence of diseases. Seminars on current topical and emerging climate change issues as part of continuous professional development in the health		MoHCC MECTHI	MHTEISTD Health Professionals Associations- Innovation, Science and Technology EMA UNICEF, MIET AFRICA, UNESCO	160, 000	Government of Zimbabwe Implementing partners Private Sector Green Climate Fund (GCF) NGOs UN Agencies (UN CC: Learn, WHO,UNICEF) Development Partners; Private Sector; CSOs,	Health Professionals in the various sub-sectors in the Health Sector

Enhance institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society.	Carry out research on the appropriate early warning system that can be adopted for use in the health sectors to enhance preparedness for response to disasters and potential risks associated.		MoHCC MHTEISTD	MECTHI MoPSE EMA Health Professionals Associations- UNICEF; MIET AFRICA; UNESCO Civil Society Organizations; Private Sector; Communities.	100, 000	Government of Zimbabwe Implementing partners Private Sector NGOs UN Agencies (UNITAR, WHO, UNICEF) Development Partners; Private Sector; CSOs,	Ministry of Health, Civil Protection unit Ministry of Environment Ministry of Defence (Ai Force for Evacuations)
Research to understand the impacts of climate change on the health of women, children, youth and people living with disabilities in Zimbabwe and create an enabling environment that safeguards the Health of these vulnerable groups emanating from pressures of these impacts.	Research aimed at understanding the impacts of climate change on the health of vulnerable		MoHCC MECTHI	MHTEISTD MoPSE EMA Health Professionals Associations- UNICEF; MIET AFRICA; UNESCO Civil Society Organizations; Private Sector; Communities.	100, 000	WHO; UNICEF; UNDP , Development Partners	Ministry of Health, Communities Academia and Research Institutions

SECTION 6

IMPLEMENTATION FRAMEWORK, MONITORING AND EVALUATION PLAN AND RESOURCE MOBILIZATION STRATEGY

6.1 IMPLEMENTATION STRUCTURE

The development of strategies entailed breaking down the goals and objectives to implementable activities or actions. As the specific goals and activities are developed, there is already need to determine the lead sector/institution to implement the activities and how to monitor progress of implementing the activities.

The responsibility of implementing the Strategy lies with the Ministry of Environment, Climate, Tourism and Hospitality Industry (MECTHI) through the Climate Change Management Department (CCMD). The Ministry will champion the process of ensuring the financial and technical support for the strategy. The CCMD will coordinate the implementation of the sectoral climate change learning activities, but will collaborate with the line ministries or departments, civil society, non-governmental organizations, private sector in the budgeting and on-the-ground implementation of activities.

The development of different curricular will be led or coordinated by the Ministry of Primary and Secondary Education through the Curriculum Development Unit and the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development, working with the various Universities, Colleges of Education, Polytechnics, the Ministry of Lands, Agriculture, Water and Rural Resettlement, through the Agricultural Education and Farmer Training Department. There will also be collaboration with the various parastatals such as the Environmental Management Agency and Forestry Commission. These institutions will develop degree programmes, tailor-made short courses in climate change. CSO and NGO networks that are involved in climate change capacity building activities will collaborate with MECTHI and the two Ministries responsible for education in the development and delivery of specific training programmes targeting the non-formal sector.

6.2 MONITORING AND EVALUATION PLAN

Zimbabwe as a country has a Monitoring and Evaluation Framework that is meant for tracking the progress of all projects and programmes that are being implemented in the country. The Strategy will be implemented in three phases, namely: short-term (up to 2022), medium-term (up to 2025) and long-term (up to 2030), thus it will be monitored under the same framework.

The activities will be monitored on a regular basis through formal and informal reports involving all implementing partners at regular intervals (Table 6.1). Terms of References with clear deliverables to guide the process of implementation will be formulated and given to all implementing partners so as to make sure each operates and delivers on the areas they are allocated to deliver on. Indicators and trackers that can be used include evaluations and mission reports. With every activity carried out for example, when training programmes are undertaken, participants will be required to do an end of course/ activity evaluation. These evaluations will be used as part of the monitoring as sources of evidence of the programmes having being carried out. A formal report will be produced on a quarterly basis covering both technical and financial aspects of the implementation process. These reports will be submitted to the Ministry of Environment, Climate, Tourism and Hospitality Industry; Climate Change Management Department. The quarterly

technical and financial reports will be used in the compilation of the annual report. There might be need for an annual independent audit report undertaken by a competent certified audit firm to track the financial resources allocations and use.

Annual review will be conducted during the fourth quarter of the year in order to assess the performance and appraise the annual work plan for the following year. The review of the Strategy will be done annually. As part of the evaluation process, there will be an independent mid-term review done midway through the initial phase. This will focus on the extent to which the set goals have been achieved. There will also be an independent end of phase evaluation. (see Annex 1 and Annex 2 for the Monitoring and Evaluation Framework and the Indicators and Guide)

Table 6.1: Schedule of M&E activities

M & E Activity	Frequency of Reporting
Technical and Financial Progress Report	-Quarterly -Annually
Mid-term Review	Once per phase (midway through the initial phase)
End of Phase Evaluation	Once per phase (at the end of the phase)

6.3 RESOURCE MOBILIZATION STRATEGY

Climate Change Learning is pivotal to the attainment of a low carbon, climate resilient development trajectory for Zimbabwe. To achieve this the Government of Zimbabwe has come up with the National Climate Change Learning Strategy. To achieve the provisions in the strategy there needs to be a sound financing strategy and this section seeks to provide information that leads to mobilization of the required financial resources, it might not be exhaustive and may have variations as new issues emerge. Central to international climate change negotiations under the UNFCCC has been the issue of climate finance which gave birth to an international commitment by developed countries to finance developing countries by approximately US$100 billion per year by 2020.

Zimbabwe Government treasury will need to allocate significant financial resources and this could be augmented by contributions from the private sector as well as from international climate funds; bilateral donor and international agencies; carbon markets; foreign direct investment and loans from international, regional and local banks to implement the Action Plans proposed in this National Climate Change Learning Strategy.

Globally climate finance is a key topic in the international climate negotiations especially under the UNFCCC, and thus has resulted in significant commitment by developed countries to increase the flow of climate finance to developing countries to about USD 100 billion per year by 2020. The climate financing is mainly to advance action on low-carbon, climate-resilient development.

Some of the important multilateral sources of climate financing at the international level are the World Bank's carbon

funds, the Global Environment Facility (GEF), the African Development Bank (AfDB), African Sustainable Forestry Fund, the UNFCCC's Adaptation Fund, and the Kyoto Protocol's Clean Development Mechanism. The Green Climate Fund (GCF), which is a financial mechanism of the UNFCCC, is a major source of climate finance as it supports projects, programmes, policies and other activities in developing country Parties. Private sector carbon funding is another major source of climate financing which has not been fully developed and exploited in Zimbabwe. There is need for government to put in place polices and incentive mechanisms for attracting private sector participation in carbon financing.

The Global Environmental Facility (GEF) was established in the 1990s with the aim of helping tackle the planet's most pressing environmental problems. The GEF funds projects in different thematic area which include protected areas, sustainable land management, sustainable forest management, greenhouse gas emission reduction (by supporting climate change mitigation projects), integrated water resources management and climate change adaptation. GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements. The funding support is provided to government agencies, civil society organizations, private sector companies, research institutions, among the broad diversity of potential partners, to implement projects and programs. These are the implementers of the National Climate Change Learning Strategy.

The Adaptation Fund is another potential source of financing that can be tapped into to finance projects and programmes that integrated climate change learning that by helping vulnerable communities in developing countries to adapt to climate change. Initiatives are based on country needs, views and priorities.

The Climate Investment Funds (CIF), established in 2008, as one of the largest fast-tracked climate financing instruments in the world, gives developing countries worldwide an urgently needed jump-start toward achieving low-carbon and climate-resilient development. The CIF provides developing countries with grants, concessional loans, risk mitigation instruments, and equity that leverage significant financing from the private sector, multilateral development banks and other sources. The Climate Investment Funds include four key programs: Clean Technology Fund (CTF), Forest Investment Program (FIP), Pilot Program Climate Resilience (PPCR) and Scaling up Renewable Energy Program (SREP). The Clean Technology Fund promotes scaled-up financing for demonstration, deployment and transfer of low carbon technologies with a significant potential for long-term greenhouse gas emissions savings. Innovation and deployment of clean technologies at large scale will be central to success. Investments are planned for renewable energy and highly efficient technologies to reduce carbon intensity, for the transport sector, to address both efficiency and to promote modal shifts, and for energy efficiency in buildings, industry and agriculture.

The Environment Fund under the Environmental Management Act [Chapter 20:27] is a government provision that is supposed to be capitalized through budgetary allocations, environmental levies, carbon tax and donations. The fund is expected to provide support through grants and loans to local authorities; climate change adaptation and mitigation activities; environmental extension; research, training and technology transfer; rehabilitation of degraded areas and

and loans to local authorities; climate change adaptation and mitigation activities; environmental extension; research, training and technology transfer; rehabilitation of degraded areas and environmental awareness programmes. The fund provides a legal institutional framework for mobilizing climate finance for the country although it is not yet fully operational.

The other local funding opportunity can be through partnerships with the private sector as well as local financial institutions. The Infrastructure Development Bank of Zimbabwe is one leading institution that is being accredited to a Climate Financing Facility and will be funding development of Climate-proofed infrastructure and learning is a central component to improving the efficiency of the developed infrastructure. Private sector through staff development programmes can also be a sources of resources to push for the achievement of the Strategy's vision. There are also opportunities for instance Zimbabwe's possible membership to the UN Partnership for Action on Green Economy (PAGE) could open windows for further climate financing and partnership with the private sector.

Annexes

Annex 1: Monitoring and Evaluation Framework for the National Climate Change Learning Strategy by Sector

Agriculture Sector

Goal	**Training of researchers to be able to disseminate knowledge and information on Climate Change and Climate Smart Agriculture**							
Outcome (s) *(Intended changes)*	**Sector's capacity to generate new forms of empirical knowledge, technologies and agricultural support services strengthened to meet emerging development challenges arising from increased climate change and variability.** **Promote the adoption of Climate Smart Agriculture (CSA) practices in farming communities promoted**							
OUTPUT *(tangible products, including services)*	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/ EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Research into climate smart Agriculture conducted	Disseminate relevant information and resources to show evidence of the relationship between CC and development in the sector	Number of publications disseminated			MLAWRR; MHTEISTD	Quarterly	Ministry of Lands Agriculture Water and Rural Resettlement (MLAWRR), Ministry of Environment, Climate, Tourism and Hospitality Industry (MECTHI_	Quarterly report
		Number of farmers applying research recommended innovations						
	Mobilisation of funds to support CC change research into climate smart agriculture	Amount mobilised			MECTHI; MLAWRR; MoFED; international CC funding agencies	Bi Annual	MECTHI, Ministry of Finance and Economic Development (MoFED)	Bi Annual report
	Mobilisation of funds to support CC change research into Climate Smart best practices	Amount mobilised			MECTHI; MoFED; international CC funding agencies	Bi Annual	MECTHI; MoFED	Bi Annual report
	Improve to access to and prioritisation of funds with regard to industry specific CC research	Amount mobilised			MECTHI; MoFED; international CC funding agencies	Quarterly	MECTHI; MoFED	Quarterly report

Academic curriculum on Climate change strengthened	Facilitate advanced sectorial research at all institutions	Number of publications			MHTEISTD	Quarterly	Agricultural Colleges, MECTHI, Ministry of Women's Affairs, Community, Small and Medium Enterprise Development (MWACSMED), MHTEISTD, MoPSE Ministry of Youth, Sports, Arts and Recreation (MYSAR)	Quarterly report
	Mobilise resource for extension services for product development and innovation sharing on climate smart technologies	% of target budget mobilised and channelled towards innovation			MECTHI; MoFED; international CC funding agencies	Bi Annual	Agricultural Colleges, MECTHI, MoFED	Bi Annual report
Agricultural Colleges curriculum on climate change strengthened through additional courses that are best suited to the different sub-sectors in the Agriculture sector	Technical working Group meetings for designing of new curriculum that incorporates climate change components into the curriculum of Agricultural Colleges	Workshops conducted			MLAWRR; MECTHI MHTEISTD	Quarterly	Agricultural Colleges, MECTHI, MHTEISTD	Quarterly report
Training materials on climate change and CSA that are user specific, developed, pretested and simplified in all local languages for use by Farmers and Extension Officers	Series of workshops for developing of the Teaching guides and Learners guides with Information on Climate Change Pilot Testing the guides Review meetings for finalisation of the guides	Teaching guides developed			MLAWRR; MECTHI; MHTEISTD	Quarterly	Agricultural Colleges, MECTHI, MHTEISTD, MoPSE, MYSAR,	Quarterly report
Scientific knowledge with the indigenous knowledge system (IKS) integrated	Designing of protocols for the integration of scientific knowledge	Protocols designed			Professional Bodies; MHTEISTD	Quarterly	MECTHI	Quarterly report

	and indigenous knowledge systems							
Goal	**Up scaling provision of climate information (extension) services and climate smart agricultural techniques through planning, cropping choices and livestock choices, disaster management**							
Outcome (s)	**Sustainable intensification and commercialization of agriculture frameworks developed at different scales across agro-ecologies through efficient extension services provision.**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Climate smart agriculture practices in farming communities promoted	Profile Climate smart activities for dissemination	Classifications developed			Professional Bodies; MLAWRR; MHTEISTD	Bi annual	MLAWRR, MECTHI	Bi Annual report
	Align different sectors towards particular strategies for maximum impact and efficiency	Inter-ministerial Alliances developed			Academic boards reports Ministerial briefs Policy briefs	Annually	MLAWRR, MECTHI	Annual report
	Promote establishment of Climate Champions	Champions developed			Academic boards reports Ministerial briefs Policy briefs	Quarterly	MECTHI	Quarterly report
	Preparation of IEC material focusing on best practices	Number of publications			Professional Bodies; MECTHI; MHTEISTD	Quarterly	MECTHI	Quarterly report
	Mobilise resource for extension services for product development and innovation sharing on climate smart technologies	% of budget mobilised and channelled towards innovation			MECTHI; MoFED; international CC funding agencies	Bi Annual	MLAWRR, MECTHI, MoFED	Bi Annual report

Extension worker to farmer ratio through capacity and skills development improved	Training of more competent extension officers	Number of Officers trained			Professional Bodies; MECTHI, MLAWRR	Annually	MLAWRR, MECTHI	Annual report
To improve extension worker mobility and communication	Percentage of mobile extension workers	% of extension workers who are mobile			MECTHI; professional bodies; international CC funding agencies	Bi Annual	MLAWRR, MECTHI	Bi Annual report
	Information response and adoption rate	Turnaround time on information upload and download			MECTHI; professional bodies; international CC funding agencies	Bi Annual	MLAWRR, MECTHI	Bi Annual report
Knowledge of communities on climate-smart practices such as avoiding wetland cultivation, water harvesting techniques, agricultural cropping choices, livestock choices, etc increased through training and establishing Farmer Learning Centres.	Hands-on Farmer Training; Establishment of Farmer Field Schools	Number of Farmer Field schools established			Professional Bodies; MECTHI; MLAWRR; MHTEISTD MoPSE MWA Agricultural colleges	Quarterly	MLAWRR, MECTHI	Quarterly report
Goal	**Level of stakeholder collaboration in the agriculture sector Increased (research extension workers, media, commercial farmers, communal farmers and members of communities in the society and the vulnerable groups)**							
Outcome (s)	**Collaboration in research between research institutions, industry, extension workers, farmers' groups and other relevant sectors to improve early warning systems and improve cropping season quality, rangelands conditions, mitigation of the impacts of droughts, floods, disease/pest outbreaks and wildlife movement strengthened in order to enhance farmer preparedness and improve productivity strengthened**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/ EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**

Academic curriculum on Climate change strengthened	Mobilise resource for research and product development	% of budget mobilised and channelled towards innovation			MECTHI; MoFED; international CC funding agencies	Annually	Agricultural Colleges, MECTHI, MHTEISTD, MoPSE, MoFED	Annual report
	Strengthen climate negotiation programming and resource mobilisation skills through training and experience sharing	Number of Trainings conducted			Professional Bodies; MECTHI	Quarterly	Agricultural Colleges, MECTHI, MHTEISTD, MoPSE,	Quarterly report
	Promote Industrial learning and knowledge exchange on the effects of climate change on development.	Number of Trainings conducted			Professional Bodies; MECTHI	Quarterly	Agricultural Colleges, MECTHI, MHTEISTD, MoPSE, Ministry of Youth,	Quarterly report
	Mainstreaming CC Learning into Human Capacity Development	Number of trainings conducted on CC			Professional Bodies ; MECTHI; MHTEISTD	Annually	MLAWRR, MECTHI	Annual report
	Documentation of best practices for adoption into curricula and extension services	Number of publications			Academic boards reports Ministerial briefs Policy briefs	Bi Annual	MLAWRR,MHTEISTD,	Bi Annual report
Coordination among stakeholders through research and extension supported	Set up climate change focal persons for effective climate change communication to all stakeholders	Inter sectorial working group			Academic boards reports Ministerial briefs Policy briefs	Quarterly	MECTHI	Quarterly report
	Mobilisation of funds to support CC change research into Climate Smart best practices	% of budget mobilised and channelled towards innovation			MECTHI; MoFED; international CC funding agencies	Annually	MECTHI, MoFED	Annual report

	Improve to access to and prioritisation of funds with regard to industry specific CC research	% of budget mobilised and channelled towards innovation			MECTHI; MoFED; international CC funding agencies	Annually	MECTHI, MoFED	Annual report
	Develop protocols for cataloguing and documentation of best practices	Classifications developed			Academic boards reports Ministerial briefs Policy briefs	Quarterly	MLAWRR, MHTEISTD, MoPSE,	Quarterly report
Stakeholder mapping and situational analysis	Meeting or Workshop	Number of Workshop/ Meetings conducted			Professional Bodies; MECTHI; MHTEISTD	Quarterly	MECTHI	Quarterly report
Stakeholders on areas prioritized for research in agriculture consulted and sensitized	Meeting or Workshop	Number of Workshop/ Meetings conducted			Professional Bodies; MECTHI; MHTEISTD	Quarterly	MLAWRR; MECTHI	Quarterly report
Establish a framework of collaboration and protocols for carrying out the research	Meeting or Workshop	Number of Workshops/Meetings conducted			Professional Bodies ; MHTEISTD	Quarterly	MECTHI	Quarterly report

Environment Sector

Goal	Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified							
Outcome (s)	a) Climate change messages incorporating indigenous knowledge systems communicated b) Environmentally friendly conservation ways and nature based solutions to climate change challenge promoted c) Environmental climate change education in selected schools environmental clubs mainstreamed							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Communication and documentation protocols for CC learning developed	Translate CC information into actionable CC Learning actions	Number of publications			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report
	Documentation of environmental developments and innovations for incorporation into curricula	Number of publications			MECTHI; professional bodies; international CC funding agencies	Bi Annually	MECTHI	Bi Annual report
	Training on the effects of climate change on development and how to mainstream CC into developmental planning at sectorial level	Number of Trainings conducted			MECTHI; professional bodies; international CC funding agencies	Bi Annually	MECTHI	Bi Annual report
	Mobilisation of funds to support information dissemination	% of budget allocated to CC			MECTHI; MoFED; international	Bi Annually	MECTHI, MoFED	Bi Annual report

	on alternative energy				CC funding agencies			
Child friendly climate change awareness material in all Schools Environment Clubs for enhanced change education, communication and awareness mainstreamed	Designing and production of Child Friendly Materials	Number of publications			MECTHI; professional bodies; international CC funding agencies	Bi Annually	MECTHI	Bi Annual report
Goal	**Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified**							
Outcome (s)	**Information sharing and networking on climate change and environmental protections issues at local, regional and international level improved**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Coordination systems to support indigenous technologies, skills and practices relevant in resounding to climate change and environmental degradation at local levels established	Set up mechanisms at national, sub-national and local level that promote the use of indigenous technologies and skills	Number of sytems established and functioning			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report
Capacity building for relevant technical expertise in climate change and environmental conservation through trainings at national an sub-national levels	Training workshops at national and sub-national levels Conducting E-courses in collaboration with other institutions	Number of workshops/ meetings conducted Number of courses done Number of employees enrolled			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report

	On the job training for both public and private sector employees	Number of trainings conducted % of employees trained						
Goal	**Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified**							
Outcome (s)	**Stakeholder awareness on adaptation to and mitigation of climate change through integration of lessons learnt from application of IKS strengthened**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies in communities, NGOs and CSOs developed	Meetings and workshops to develop protocols for cataloguing and documentations of IKS	Number of meetings / workshops held			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report
Goal	**Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified**							
Outcome (s)	**Communication strategy for raising awareness on climate change crafted and implemented**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Translation of information on the impacts of climate change on agriculture into local languages supported	Setting up a working group on translation of information and creating packages for various communities with different	Working group on translation of information and creating packages for various communities with different language inclinations set			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report

	language inclinations							
Goal	Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified							
Outcome (s)	Stakeholder awareness on adaptation to and mitigation of climate change through integration of lessons learnt from application of IKS strengthened							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies in communities, NGOs and CSOs developed	Meetings and workshops to develop protocols for cataloguing and documentations of IKS	Number of meetings / workshops held			MECTHI; professional bodies; international CC funding agencies	Quarterly	MECTHI	Quarterly report
Goal	**Capacity building for resource mobilization to access international climate change financing**							
Outcome (s)	**Proposal writing skills of the stakeholders in the priority sector Strengthened for better resource mobilization for improved climate change response**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Relevant expertise in proposal writing skills developed to produce bankable proposals to access climate financing from international financing mechanism for stakeholders in Government Ministries and Parastatals, Academia, Private Sector, NGOs and CSOs developed	Training on Proposal Writing techniques	Trainings conducted Bankable Proposals developed			MECTHI	Bi Annually	MECTHI	Bi Annual report
	Training on Completion of different funding Templates	Trainings conducted			MECTHI	Bi Annually	MECTHI	Bi Annual report

Education Sector

Goal	Teacher/ lecturer resource book on climate change							
Outcome (s)	Adequate tailor made climate change resource material for teachers and lecturers in formal education systems							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
CC learning Content developed	Conducting curriculum audits in terms of the content and process of climate change.	Audits conducted			MECTHI; Min of Primary and Secondary Education (MoPSE), Ministry of Higher and Tertiary Education, Science and Technology Development (MHTEISTD)	Annually	MoPSE, MHTEISTD,	Annual report
	Facilitating content development for curricula development	Quality of content developed			MECTHI; MoPSE; MHTEISTD	Bi Annual	MoPSE, MHTEISTD,	Bi annual report
	Convening of national workshops to fully integrate climate change into the academic curricula	Number of training workshops conducted			MECTHI; MoPSE; MHTEISTD	Quarterly	MoPSE, MHTEISTD, MECTHI,	Quarterly report

	Monitoring and evaluation of the teaching and learning of climate change.	Monitoring activities conducted			MECTHI, MoPSE, MHTEISTD	Bi Annual	MECTHI,	Bi annual report
	Standardisation of teaching courses on climate change across all academic institutions	Standard developed						
Content developers to develop resources book/teaching guide recruited	Advertisement for Content Developers in the Newspapers and other relevant Media Development of resources book	Number of adverts in newspapers and other media Number of resource books developed			MECTHI,, MoPSE, MHTEISTD	Quarterly	MECTHI, , MHTEISTD, MoPSE	Quarterly report
Material evaluated and quality assured in respective ministries or by a technical working group	Validation exercises in the various line Ministries of the Resource Book	Monitoring activities conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	MECTHI, , MHTEISTD, MoPSE	Bi annual report
Pilot testing of the resources book and printing for roll out	Pilot Testing the Resource book in schools and colleges Printing of the Resource book	Number of pilot tests done			MECTHI MHTEISTD, MoPSE	Quarterly	MECTHI, , MHTEISTD, MoPSE, NGOs, CSOs	Quarterly report

Information disseminated or rolled out to the various learning institutions in Zimbabwe	Distribution of the books to all the ten Provinces to schools colleges and universities.	Publications distributed			MECTHI MoPSE, MHTEISTD	Quarterly	MECTHI	Quarterly report
Educators Trained on the effects of climate change on development and how to mainstream climate change into development planning at national and sub-national levels	Conducting in-service training workshops for educators on the integrated climate change curriculum.	Number of Trainings conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	, MoPSE, MHTEISTD	Bi annual report
	Preparation of IEC and improved curriculum materials based on the findings of the needs assessment	Number of publications			MECTHI MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report
	Continuous training on CC developments and incooperation into education curricula	Trainings conducted			MECTHI MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report

	Production of a teacher's guide to these materials for use in the classroom.	Number of guides published			MECTHI MoPSE, MHTEISTD	Quarterly	, MoPSE, MHTEISTD	Quarterly report
Goal	**Capacity building, skills and knowledge development in Informal/non-formal education**							
Outcome (s)	**Teaching and learning of climate change at all levels of education (formal and informal) enhanced**							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Climate change content gaps in the current curricula identified through a survey and current initiatives and documentation reviewed	Carry out a desk review of the current learning initiatives and what content they cover	Reviews conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	, MoPSE, MHTEISTD	Bi annual report
	Carry out a survey in all institution of higher learning to identify gaps in content of climate change in their curricula	Surveys conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	MHTEISTD	Bi annual report

Climate change issues integrated and broadened across in the non-formal education sector through tailor made on the job training, E-courses for use in Technical and V ocational Training Centres	Meeting to review the current course materials that are currently in use in the non-Formal education sector	Meetings conducted			MECTHI MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report
	Meeting with various sector Ministries to develop appropriate on the job training activities best suited to their contexts	Meetings conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	MECTHI	Bi annual report
Development and testing of curriculum for the non-formal education for use in all the priority sectors	Creation of Content appropriate for non-formal education	quality of content created			MECTHI MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report
	Designing of teaching guides and aides to us in the education activities	Teaching guides and aids developed					MoPSE, MHTEISTD	
	Pilot testing the curriculum and materials developed	Pilot testing of the curriculum and materials					MoPSE, MHTEISTD	
Goal	**Mainstreaming Climate Change in the Higher and Tertiary Education Sector including Teacher Training in Zimbabwe**							

Outcome (s)	Teaching and learning of climate change at all levels of education (formal and informal) enhanced							
OUTPUT	**INDICATOR**	**INDICATOR DEFINITION**	**BASELINE VALUE**	**TARGET VALUE**	**DATA SOURCE**	**MONITORING/EVALUATION FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Climate change content gaps in the current curricula identified through a survey and review of curriculum development regulations for tertiary institution in order harmonize and standardize the curriculum	Carry out an assessment of the current climate change curriculum being offered in the various universities	Assessments conducted			MECTHI MoPSE, MHTEISTD Development	Bi Annual	MoPSE, MHTEISTD	Bi annual report
	Identify gaps and synergies present in the current curricula	gaps and synergies identified			MECTHI	Bi Annual	MoPSE, MHTEISTD	Bi annual report
	Review the regulations for curricula development for Tertiary Institutions in Zimbabwe	Reviews conducted			MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report

	Standardize Climate Change information in curricula to be offered by Tertiary institutions in Zimbabwe	validations conducted			MECTHI MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report
Short term and long term tertiary level curriculum reviewed in order to incorporate relevant emerging climate change issues	Review the curriculum every five years to incorporate any new or emerging climate change trends	Reviews conducted			MECTHI MoPSE, MHTEISTD	Annually	MoPSE, MHTEISTD	Annual report
Lecturers' capacity developed for the for them to be able to deliver the learning activities/ areas in the resource book	Training of trainers' workshop for rolling out the new curricula to lecturers	Number of Trainings conducted			MECTHI, MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report
	On- the Job training for lecturers that are already in-service	Number of Trainings conducted			MECTHI, MoPSE, MHTEISTD	Quarterly	MoPSE, MHTEISTD	Quarterly report

Mainstreaming Climate Change into Teacher Training in Zimbabwe	Carry out a review of the Teacher Training curriculum to identify the gaps and opportunities for mainstreaming climate change.	Reviews conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	MoPSE, MHTEISTD	Bi annual report
Networking groups Established to ensure sustainability	Convene a Workshop to establish networking groups for climate change education in Zimbabwe	Workshops conducted			MECTHI MoPSE, MHTEISTD	Bi Annual	MoPSE, MHTEISTD	Bi annual report

Energy

Goal: To reduce energy-related emissions by 33% per capita below the projected business as usual by 2030								
Outcome	**Low carbon energy provision and use strengthened through awareness, education and training**							
OUTPUT	**INDICATOR**	**DEFINITION**	**BASELINE**	**TARGET**	**DATA SOURCE**	**FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Promoting minimum energy performance standards to reduce emissions and increase efficiency	Set up climate change working group effective climate change learning across the industry	Number of climate change working group on effective climate change learning across the industry			Stakeholder reports	Quarterly	MECTHI, Ministry of Energy and Power Development (MoEPD)	Quarterly report
	Capacity enhancement training for business leaders	Number of Capacity enhancement training for business leaders conducted			Professional Bodies; MECTHI; MHTEISTD	Annually	MECTHI, MoEPD	Annual report
	Training on the effects of climate change on development and how to mainstream CC into developmental planning at National level	Number of trainings conducted on CC			Professional Bodies; MECTHI; Stakeholder reports	Quarterly	MECTHI, MoEPD	Quarterly report

	Regional and international documentation of performance standards for incorporation into curricula	Documents formulated and/or revised			Professional bodies; MoEPD; regional policies	Annually	MECTHI, MoEPD	Annual report
Content for CC Learning in the energy sector developed	Disseminate relevant information and resources to show evidence of the relationship between CC and development in the sector	Documents developed, reviewed and disseminated			MoEPD, MECTHI; and professional bodies	Annually	MoEPD, MECTHI	Annual report
	Mobilisation of funds to support CC change research into alternative energy	% of funds mobilised and channelled towards innovation			MECTHI; MoEPD, MoFED and professional bodies	Annually	MECTHI, MoEPD	Annual report
	Improve access to and prioritisation of funds with regard to industry specific CC research	% of funds allocated to CC			MECTHI; MoFED ; international CC funding agencies	Annually	MECTHI, MoEPD	Annual report
Goal: To reduce energy-related emissions by 33% per capita below the projected business as usual by 2030								

Outcome	**Improved awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy efficiency** **Research promoted in the energy sector** **Greenhouse emissions in industry and households reduced through demand side management and energy saving techniques**							
Public educated on efficient use of energy and energy efficiency	Develop a handbook on efficient use of renewable energy and energy efficiency	Handbook developed			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
	Develop IEC materials for education and public awareness on renewable energy and energy efficiency	Number of materials developed			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
	Develop an innovation sharing platform with the consumers and policy enablers	Number of developed and functional platforms			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
	Increase access to e-learning tools	% target accessing e-learning platforms			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
	Organise forums and seminars on renewable energy and energy efficiency	Number of seminars conducted			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report

Educate people in their local language on renewable energy sources and initiatives e.g. biogas, solar, energy efficiency, through outreaches in schools and communities in all the provinces of Zimbabwe	local language publications and messages on renewable energy sources and initiatives	Number of publications and messages			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
	Provincial awareness campaigns	Provinces running awareness campaigns			MECTHI& MoEPD	Biannually	MoEPD	Biannual report
Strengthen and Promote Research and Development in the Renewable Energy Sector through capacity building on proposal writing skills, training of trainers on various impacts of climate change on the energy sector at national and subnational levels	Research capacity building initiatives	Number of initiatives			MECTHI; MoEPD & local institutions of higher learning	Biannually	MoEPD	Biannual report
	Research grants	Number of grants disbursed			MECTHI; MoEPD & local institutions of higher learning	Biannually	MoEPD	BiAnnual report
	Publications in reputable journals and related platforms	Number of publications			MECTHI; MoEPD & local institutions of higher learning	Annually	MoEPD	Annual report

Strengthen energy planning and modelling	Collate information on present energy forms, use, demand and source	Energy database			MECTHI; MoEPD & local institutions of higher learning	Annually	MoEPD	Annual report
	Develop participatory local energy saving protocols	Number of Functional protocols developed			MECTHI; MoEPD & local institutions of higher learning	Annually	, MoEPD	Annual report
	Energy utilisation forecasts	Number of forecasts published			MECTHI; MoEPD & local institutions of higher learning	Annually	MECTHI, MoEPD	Annual report
	Alternative energy production plans	Plans published			MECTHI; MoEPD & local institutions of higher learning	Annually	MECTHI, MoEPD	Annual report
	Workshops and other forms of training on energy production and utilisation forecasting	Number of Workshops and training initiatives held			MECTHI; MoEPD & local institutions of higher learning	Biannually	MECTHI, MoEPD	Biannual report
Institutional frameworks (policies) to coordinate effective energy management	Develop coordinated working group to disseminate energy sector developments , impacts and mitigation	A functional working group established			Ministry of Local Government and Public Works (MLGPW); MECTHI; MoEPD	Biannually	MECTHI, MoEPD	Biannual report

	Develop IEC materials for education and public awareness on renewable energy and energy efficiency	Number of materials developed and published			MLGPW; MECTHI; Ministry of Energy	Biannually	MECTHI, MoEPD	Biannual report
	Appoint energy champions to promote alternative clean energy alternatives in communities	Energy champions established			MLGPW; MECTHI; Ministry of Energy	Biannually	MECTHI, MoEPD	Biannual report
Disseminate information on the application of the minimum energy performance standard through training for private and public sectors	Continuous training on skills development towards the application of the minimum energy performance standards	Skills development training conducted			MLGPW; MECTHI; Ministry of Energy	Biannually	MECTHI, MoEPD	Biannual report
	Regional and international documentation of performance standards for incorporation in curricula and operational procedures	Number of publications			MLGPW; MECTHI; Ministry of Energy	Biannually	MECTHI, MoEPD	Biannual report
	Print , digital, visual and audio awareness campaigns on minimum energy performance standards	Number of material publications			MLGPW; MECTHI; Ministry of Energy	Biannually	MECTHI, MoEPD	Biannual report

	Mobilisation of funds to support adoption and implementation of minimum energy performance standards as well as research into alternative energy options	% of funds mobilised			MECTHI; MoEPD MoFED	Annually	MECTHI, MoEPD MoFED	Annual report
	Improve access to and prioritisation of funds with regards to industry specific CC research	% of funds allocated to research			MECTHI; MoEPD MoFED	Annually	MECTHI, MoEPD MoFED	Annual report
Communicate energy performance standards and facilitate reduction in emission	Facilitate establishment of climate change working group focused on reducing greenhouse gas emissions in the energy sector and improving efficiency	Established and functional working group			MECTHI; MoEPD	Annually	MECTHI, MoEPD	Annual report
	Promote training and information dissemination on energy performance standards	Number trainings conducted Number of publications disseminated			MECTHI; MoEPD	Annually	MECTHI, MoEPD	Annual report
	Promote resource mobilisation for innovations towards increasing energy efficiency and reducing emissions	Amount mobilised			MECTHI; MoEPD, MoFED	Annually	MECTHI, MoEPD, MoFED	Annual report

	Promote continuous training on skills development on energy efficiency	Number of trainings conducted			MECTHI; MoEPD	Annually	MECTHI, MoEPD	Annual report

Health Sector

Goal: Capacity building, skills and knowledge development in the Health sector								
Outcome	**Improvement in climate change knowledge and skills in health education and training**							
OUTPUT	**INDICATOR**	**DEFINITION**	**BASELINE**	**TARGET**	**DATA SOURCE**	**FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Develop communication and documentation protocols for CC learning	Tracking systems on changes in disease incidence due to CC	Disease surveillance system established			Professional Bodies; Ministry of Health and Child Care (MoHCC); Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual
	Education kit on CC , packaged for different levels of Health practitioners	Kits developed			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual
	Translate CC information into actionable learning tools at all stages of health education	Learning tools developed			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual

	Documentation of health developments and innovations for incorporation into curricula	Number of Publications			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual
	Training on the effects of climate change on development and how to mainstream CC into developmental planning at sectorial level	% of staff trained			Professional Bodies; MoHCC; MECTHI	Quarterly	MECTHI, MoHCC	Quarterly report
Review, Strengthen and Mainstream Climate change into the Curriculum of training for key health personnel such as the nursing staff in nursing schools as well as environmental health personnel	Curriculum review for health sector training for different subsectors in the sector	Review reports			Professional Bodies; MoHCC; Institutions of higher learning	Four years	MECTHI, , MoHCC	Four year report
Develop Training Manuals for Health Professionals for inclusion in their training curricula	Manuals developed for use in trainings of doctors, nurses and other medical personnel	Number of manuals developed			Professional Bodies; MoHCC; Institutions of higher learning	Four years	MECTHI, , MoHCC	Four year report

Awareness workshops for health professionals in their health colleges and health centres	Carry out CC awareness workshops for health professionals in every health institution	Number of institutions trained			Professional Bodies; MoHCC; Institutions of higher learning	Four years	MECTHI, , MoHCC	Four year report
Goal: Capacity building , skills and knowledge development in the Health sector								
Outcome	**a. Resilience against diseases that occur because of impacts of climate change through education and learning built**							
	b. institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society enhanced							
OUTPUT	**INDICATOR**	**DEFINITION**	**BASELINE**	**TARGET**	**DATA SOURCE**	**FREQUENCY**	**RESPONSIBLE**	**REPORTING**
Develop communication and documentation protocols for CC learning	Tracking systems on changes in disease incidence due to CC	Disease surveillance system established			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report

	Translate CC information into actionable learning tools at all stages of health education	Learning tools developed			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report
	Documentation of health developments and innovations for incorporation into curricula	Number of publications incorporated into curricula			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report
	Training on the effects of CC on development and how to mainstream CC into developmental planning at sectorial level	% of staff trained			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report
Climate risk assessment	Develop risk screening tools for Rapid Risk Assessment	Number of functional tools developed			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report
	Promote periodic sector briefings on adaptation strategies	Number of briefing papers presented			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report

	Develop technical guidelines for the assessment of climate impacts , evaluation of risks , identification and prioritisation of adaptation options and monitoring and evaluation of adaptation measures	Guidelines developed			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report
	Conduct climate impact assessment across all sector	Climate impact assessment conducted			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report
	Conduct a climate vulnerability assessment	Climate vulnerability assessment conducted			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report
	Conduct climate adaptation assessment	Climate adaptation assessment conducted			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report
Build capacity for both curative and preventive staff to be able to link diseases to the effects of the changing climate for example consequence of increased temperatures through	Seminars on current topical and emerging climate change issues as part of continuous professional development in the health	Number of initiatives			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	Biannual report

continuing education and continuous professional development seminars and training for health professionals	On the Job training for health professionals to enable them to link climate change to prevalence of diseases.	Number of health personnel trained			Professional Bodies; MoHCC	Biannually	MECTHI, , MoHCC	BiAnnual report
	Publications in reputable journals and related platforms	Number of publications			Professional Bodies; MoHCC	Annually	MECTHI, , MoHCC	Annual report
Enhance institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society.	Carry out research on the appropriate early warning system that can be adopted for use in the health sectors	Number of studies published			Professional Bodies; MoHCC; Institutions of higher learning	Annually	MECTHI, , MoHCC	Annual report
Research to understand the impacts of climate change on the health of women, children, youth and people living with disabilities in Zimbabwe and create an enabling environment that safeguards the Health of these vulnerable groups emanating	Research projects aimed at understanding the impacts of climate change on the health of the vulnerable	Projects commissioned Rate of uptake of research recommendation as best practices			Professional Bodies; MoHCC; Institutions of higher learning	Biannually	MECTHI, , MoHCC	Biannual report
	Research seminars aimed at understanding the impacts of climate change on the health of the vulnerable	Seminars organised			Professional Bodies; MoHCC; Institutions of higher learning	Biannually	MECTHI, , MoHCC	Biannual report
from pressures of these impacts.	Publications on the impacts of climate change on the health of the vulnerable	Number of publications			Professional Bodies; MoHCC; Institutions of higher learning	Biannually	MECTHI, , MoHCC	Biannual report

Annex 2: Guidance on the M and E Framework and Indicator Tracking Table

ITT purpose and compliance

The ITT is an important data management tool for recording and monitoring indicator performance. It will inform the CC Learning implementation and management, tracking progress towards specific targets for better transparency and accountability within and outside.

The ITT should be included as a critical part of regular management reports. The report's narrative should explain the data recorded in the ITT, including any significant variance in indicator performance (difference between targets versus actual performance - especially any variance greater than ten per cent.

Typically, the ITT is completed by project staff members and submitted by the Department Head.

This ITT format is to be used for all activities contributing to the CC Learning Strategy at the field level, and is to inform other indicator reporting formats within the Department and Ministry at large

ITT submission should follow the agreed (required) frequency and reporting lines according to the specific project/programme. Typically the ITT is completed on a quarterly reporting basis, as the spreadsheet is currently formatted. However, cumulative figures from monthlyactivities should be carefully inputted as quarterly figures.

ITT instructions

ITT format

The ITT is designed and managed in an Excel worksheet that contains all of the objectives of the project/programme log-frame, with indicators listed under their objectives.

Excel formulas have been embedded in the following cells of the ITT worksheet.

Strategy Actual,

% of Strategy Target

Year to date Actual,

% of Annual Target

All % of quarterly targets.

These formulas make automatic calculations and therefore reduce the amount of data that must be entered manually. However, even with the help of formulas to automatically calculate, it is important to be careful that the data has been calculated as intended. Adjustments will often have to be made to suit the particular time frame and other aspects of the Strategy needs.

If there are problems with the formulas, you may need to re-enter them. If necessary, seek the assistance of someone experienced with Excel, or through the guidance and help available in Excel.

As the ITT mirrors the CCL M and E Framework, the listed objectives and indicators in the worksheet should remain the same throughout the life Strategy (unless the M and E framework itself is to be changed).

ITT completion – overall reminders

Data reported in the ITT should be confirmed for the reporting period, (Data should be extracted from monthly and incidental reports). If you are not clear about what an indicator means or how to report on it, refer to the CCL M&E framework.

Values for indicators should be numeric with descriptions reserved for the narrative report.
Remember that "0", "NA" and "UK" all mean different things. Entering "0" means that no progress was made against an indicator for the given time period. If the CCL Framework does not measure an indicator for a given time period (e.g. no target was set), enter "NA" (not applicable). Only enter "UK" (unknown) for instances where an indicator target has been set, but the indicator can not be measured due to missing or unreliable data (e.g. the M&E system may not be in place yet).

For indicators that are measured in percentages, enter the numerator and denominator as a ratio and then format the cell as a percentage (e.g. 50 per cent, not 0.5). This ensures that all of the relevant data is entered into the ITT.

Project/Programme background information

Project/Programme Name: Enter the project/programme name used in the proposal.
Project/Programme No. or ID: Enter the project/programme number or ID.
Project/Programme Manager: Enter the project/programme manager's name.
Project/Programme Department: Select the appropriate project/programme sector, e.g. CCMD.
Project/Programme Location: Enter the field location of where the project/programme is being implemented (e.g. district(s) and/or province and country).
Reporting Period: Enter the reporting period for which the ITT is being completed.
Project/Programme Start Date: Enter the date for when the project/programme implementation will begin.
Project/Programme End Date: Enter the expected date for when the project/programme will end.

M and E Framework -objective and indicators statements

Enter the project/programme statements for the project/programme goal, outcome(s), outputs, and indicators as they appear in the log-frame.

Log-frame indicator reporting

Project/programme baseline date/value – Enter the date of the project/programme baseline and value for this indicator. If a baseline has not yet been conducted but is planned, leave this blank. If no baseline will be conducted or no data is required for a particular indicator, write "NA" (for "not applicable"). Remember, not all indicators will need to be measured during the baseline
Target – Targets should be set for each quarter and are usually entered into the indicator tracking sheet during the same time period as the planning of the annual project budget for the next year. If your project/programme does not measure (set a target) an indicator for a respective quarter, enter "NA" not "0".
Actual – Enter the actual indicator value for the current reporting period. Enter only accurate data, not estimated data. Entering "0" means that no progress was made against an indicator for the given time period. If your project/programme does not measure this indicator for a respective quarter, write "NA". Enter "UK" (unknown) for instances where an indicator target has been

set, but the indicator cannot be measured due to missing or unreliable data (e.g. the M&E system may not be in place yet).

Percentage of target – This cell has a formula to automatically calculate the percentage of the target that was actually achieved by the indicator during the reporting period (by dividing actual by the target). Double check in the first instance to make sure that the percentage is accurate and that the formula is working correctly.

Annual target – Annual targets are entered into this column at the start of the project/programme. All annual targets should be included in each annual indicator tracking sheet. Annual targets for individual indicators may be revised at the end of the year to reflect major programmatic changes/revisions. However, revisions should not affect total life of project targets, and any revision should be authorized (e.g. approved by the donor

Year to date actual – This value will change each quarter there has been indicator performance. Depending on the indicator, you may want to create a formula to tabulate this automatically. Some indicators may need to be calculated manually (e.g. where the actual is not the sum of all quarterly actuals but the highest number).

Percentage of annual target – This cell has a formula to automatically calculate this value by dividing the Year to date actual by the Annual target. Double-check to make sure that this is the accurate percentage and that the formula is working correctly

Life of project (LoP) target – LoP targets are entered into this column at the start of the project/programme. All LoP targets should be included in each annual indicator tracking sheet. Generally, LoP targets should not be revised except under rare instances, and with the proper authorization (e.g. from donors).

Life of project actual – This value will change each quarter there has been indicator performance. Depending on the indicator, you may want to create a formula to tabulate this automatically. Some indicators may need to be calculated manually (e.g. where the LoP actual is not the sum of all quarterly actuals but the highest number).

Percentage of LoP target – This cell has a formula to automatically calculate this value by dividing the actual to date by the life of project/programme target. Double-check to make sure that this is the accurate percentage and the formula is working correctly

Annex 3: Monitoring and Evaluation Framework Database

Project/Programme Indicator Tracking Table (ITT)*

National Climate Change Learning Strategy 2020-2030

Project/Programme Name			
Project/Programme Manager		**Reporting Period**	
Project/Programme #/ID		**Project/Programme Start Date**	
Project/Programme Location		**Project/Programme End Date**	
Project/Programme Sector		**Extra Field**	

Energy Sector Indicators																			
INDICATOR	**Project Baseline**		**LoP Target**	**LoP Actual**	**% of LoP Target**	**Annual Target**	**% of Annual Target**	**Q1 Reporting Period**			**Q2 Reporting Period**			**Q3 Reporting Period**			**Q4 Reporting Period**		
	Date	**Value**						**Target**	**Actual**	**% of Target**	**Target**	**Actual**	**% of Target**	**Target**	**Actual**	**% of Target**	**Target**	**Actual**	**% of Target**
Goal 1: To reduce energy-related emissions by 33% per capita below the projected business as usual by 2030																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Low carbon energy provision and use strengthened through awareness, education and training																			
Output 1.1. Promoting minimum energy performance standards to reduce emissions and increase efficiency																			
1.1.a. Number of climate change working group on effective climate change learning across the industry			6	6	*100%*	1	*17 %*	0			6	6	*100 %*	0	0		0		

1.1.b. Number of Capacity enhancement training for business leaders conducted			3000	1	*0%*	2	*0%*	0			1	1	*100 %*	0	0		0		
1.1.c. Number of people trained on energy efficiency improvement			5	1	*20%*	2	*40 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Number of Regional and international documents of performance standards for incorporated			2	1	*50%*	2	*100 %*	0			1	1	*100 %*	0	0		0		
Output 1.2. Content for CC Learning in the energy sector developed																			
1.2.a. Number of documents disseminated showing evidence of the relationship between CC and development			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.2.b.% of funds allocated to research on alternative energy sources			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.2.b.% of funds allocated to industry specific CC research			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
Outcome 2.Improved awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy efficiency Research and development promoted in the energy sector Greenhouse emissions in industry and households reduced through demand side management and energy saving techniques																			
			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 2.1. Educate the public on the efficient use of renewable energy																			

2.1.a. Number of handbooks on efficient use of renewable energy and energy efficiency			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.1.b. Number of IEC materials for education and public awareness on renewable energy and energy efficiency			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.1.c. Number of innovation sharing platform with the consumers and policy enablers			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.1.d. % target accessing e-learning platforms			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
2.1.e. Number of forums and seminars on renewable energy and energy efficiency			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 2.2. Educate people in their local language on renewable energy sources and initiatives e.g. biogas, solar, energy efficiency, through outreaches in schools and communities in all the provinces of Zimbabwe																			
2.2.a. Number of local language publications and messages on renewable energy sources and initiatives developed and disseminated			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.2.b. Number of Provincial awareness campaigns conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 2.3 Strengthen and Promote Research and Development in the Renewable Energy Sector through capacity building on proposal writing skills, training of trainers on various impacts of climate change on the energy sector at national and subnational levels																			
2.3.a. Number of Research capacity building initiatives			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		

2.3.b. Number of Research grants disbursed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.3.c. Number of Publications in reputable journals and related platforms			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 2.4 Strengthen energy planning																			
2.4.a. Energy use, forms, demand and source database developed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.4.b. Number of Functional participatory energy saving protocols developed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.4.c. Number of Energy utilisation forecasts published			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.4.d. Number of Alternative energy production plans			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
2.4.e. Workshops and other forms of training on energy production and utilisation forecasting			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 2.5 Institutional frameworks (policies) for effective energy management																			
2.5.a. A functional working group established			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.4.b.IEC materials for education and public awareness on renewable energy and energy efficiency			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.4.c.Energy champions established			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		

Output 2.6 Disseminate information on the application of the minimum energy performance standard through training for private and public sectors																			
2.6.a. Number of Skills development training conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.6.b. Number of publications on Regional and international performance standards for incorporation in curricula and operational procedures			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.6.c. Number of awareness campaigns on minimum energy performance standards			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
2.6.d. Funds mobilised to support adoption and implementation of minimum energy performance standards as well as research into alternative energy options			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
2.6.e.% of funds allocated to industry specific research			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
Output 2.7 Communicate energy performance standards and facilitate reduction in emission																			
2.7.a. Established climate change working group focused on reducing greenhouse gas emissions in the energy sector and improving efficiency			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
2.7.b. Number of National energy performance standard publications disseminated and trainings conducted			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		

2.7.c. Amount mobilised for innovations towards increasing energy efficiency and reducing emissions			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
2.7.d. Number of people trained on skills development on energy efficiency			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Agriculture Sector Indicators																			
Goal 1: Training of trainers to be able to disseminate knowledge and information on Climate Change and Climate Smart Agriculture																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. **a. The sector's capacity to generate new forms of empirical knowledge, technologies and agricultural support services strengthened to meet emerging development challenges arising from increased climate change and variability.** **b. Climate smart agriculture practices in farming communities promoted**																			
Output 1.1Research into Climate Smart Agriculture (CSA)																			
1.1.a. Number of publications on relevant information and resources to show evidence of the relationship between CC and agriculture development in the sector disseminated			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		

1.1.b. Funds mobilised to support CC change research into climate smart agriculture			3000	1	*0%*	2	*0%*	0			1	1	*100%*	0	0		0		
1.1.c. Mobilisation of funds to support CC research into Climate Smart best practices			5	1	*20%*	2	*40%*	0			1	1	*100%*	0	0		0		
1.1.d. % of funds allocated to industry specific CC research			2	1	*50%*	2	*100%*	0			1	1	*100%*	0	0		0		
Output 1.2. Academic curriculum on Climate change strengthened																			
1.2.a. Number of publications from research			6	1	*i*	1	*17%*	0			1	1	*100%*	0	0		0		
1.2.b. % of budget mobilised and channelled towards innovation sharing and product development for extension services			3000	1	*0%*	2	*0%*	0			1	1	*100%*	0	0		0		
Output 1.3. Agricultural Colleges curriculum on climate change strengthened through additional courses that are best suited to the different sub-sectors in the Agriculture sector																			
1.3.a. Number of Technical Working Group meetings for designing new curriculum			6	1	*17%*	1	*17%*	0			1	1	*100%*	0	0		0		
Output 1.4. Training materials on climate change and CSA that are user specific, developed, pretested and simplified in al l local languages for use by Farmers and Extension Officers																			
1.4.a. Number teaching guides developed, tested and validated			6	1	*17%*	1	*17%*	0			1	1	*100%*	0	0		0		
Output 1.5. Scientific knowledge with the indigenous knowledge system (IKS) integrated																			

1.5.a. Protocols for integration designed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Goal 2: Up scaling provision of climate information (extension) services and climate smart agricultural techniques through planning, cropping choices and livestock choices, disaster management																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome 1. Sustainable intensification and commercialization of agriculture frameworks developed at different scales across agro-ecologies through efficient extension services provision.																			
Output 1.1 Climate smart agriculture practices in farming communities promoted																			
1.1.a. Climate smart activities profiled for dissemination			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Inter-ministerial Alliances developed			3000	1	*0%*	2	*0%*	0			1	1	*100 %*	0	0		0		
1.1.c. Climate Champions developed			5	1	*20%*	2	*40 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Number of publications - IEC materials focusing on best practices			2	1	*50%*	2	*100 %*	0			1	1	*100 %*	0	0		0		
1.1.e. Number of publications on relevant information and resources to show evidence of the relationship between CC and development in the sector			2	1	*50%*	2	*100 %*	0			1	1	*100 %*	0	0		0		
1.1.f. % of budget mobilised and channelled towards extension services for product development and innovation sharing on climate smart technologies			-4	1	*-25%*	2	*-50 %*	0			1	1	*100 %*	0	0		0		

Output 1.2. Extension worker to farmer ratio through capacity and skills development improved																			
1.2.a. Number of extension officers trained			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 1.3. To improve extension worker mobility and communication																			
1.2.a. % of extension personnel mobile			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
Output 1.4. Knowledge of communities on climate-smart practices such as avoiding wetland cultivation, water harvesting techniques, agricultural cropping choices, livestock choices, etc increased through training and establishment of Farmer Learning Centres																			
1.3.a. Farmer Field Schools established			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Goal 3: Level of stakeholder collaboration in the agriculture sector Increased (research extension workers, media, commercial farmers, communal farmers and members of communities in the society and the vulnerable groups).																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Collaboration in research between research institutions, industry, extension workers, farmers' groups and other relevant sectors to improve early warning systems and improve cropping season quality, rangelands conditions, mitigation of the impacts of droughts, floods, disease/pest outbreaks and wildlife movement strengthened in order to enhance farmer preparedness and improve productivity.																			
Output 1.1 Academic curriculum on Climate Change strengthened																			
1.1.a. % of funds mobilised and channelled towards research and product development			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Trainings on strengthen climate negotiation programming and resource mobilisation skills through training and experience sharing conducted			3000	1	*0%*	2	*0%*	0			1	1	*100 %*	0	0		0		

1.1.c. Trainings on Industrial learning and knowledge exchange on the effects of climate change on development conducted			5	1	*20%*	2	*40 %*	0			1	1	*100 %*	0	0		0		
1.1.d.Trainings on Mainstreaming CC Learning into Human Capacity Development conducted			2	1	*50%*	2	*100 %*	0			1	1	*100 %*	0	0		0		
1.1.e. Number of publications on best practices for adoption into curricula and extension services			-1	1	*-100%*	2	*-200 %*	0			1	1	*100 %*	0	0		0		
Output 1.2. Coordination among stakeholders through research and extension supported																			
1.2.a. Inter sectorial working group on effective climate change communication to all stakeholders			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.2.b. % of funds mobilised and channelled to support CC change research into Climate Smart best practices			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.2.c. Protocols for cataloguing and documentation of best practices			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 1.3. Stakeholder mapping																			
1.5.a. Stakeholder mapping meetings held			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 1.4. Stakeholder consultation and sensitization																			

1.6.a. Stakeholder consultative meetings held			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 1.5. Stakeholder framework of collaboration and protocols for carrying out the research established																			
1.7.a. Stakeholder consultative meetings held			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Environment Sector Indicators																			
Goal 1: Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified .																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. **a) climate change messages incorporating indigenous knowledge systems communicated** **b) environmentally friendly conservation ways and nature based solutions to climate change challenge promoted** **c) environmental climate change education in selected schools environmental clubs mainstreamed**																			
Output 1.1 Communication and documentation protocols for CC learning developed																			
1.1.a. Number of publications of translated CC information into actionable CC Learning actions			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Number of publications on environmental developments and innovations			3000	1	*0%*	2	*0%*	0			1	1	*100 %*	0	0		0		
1.1.c. Number of trainings on the effects of climate change on development and how to mainstream CC into developmental planning at sectorial level			3001	1	*0%*	3	*0%*	0			1	1	*100 %*	0	0		0		

1.1.d. % of budget allocated to information dissemination on good environmental practices			3002	1	*0%*	4	*0%*	0			1	1	*100%*	0	0		0		
Output 1.2. Child friendly climate change awareness material in selected Schools Environment Clubs for enhanced change education, communication and awareness mainstreamed																				
1.2.a Number of Child friendly publications on CC and environmental conservation			3003	1	*0%*	5	*0%*	0			1	1	*100%*	0	0		0		
Goal 2: Identify and Promote Indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels identified .																				
					0%		*0%*			*0%*			*0%*			*0%*			*0%*	
Outcome1. **Information sharing and networking on climate change and environmental protections issues at loca, regional and international level improved**																				
Output 1.1. Coordination systems to support indigenous technologies, skills and practices relevant in responding to climate change and environmental degradation at local levels established.																				
1.2.a Protocols at national and sub-national level that promote the use of indigenous technologies and skills developed			3003	1	*0%*	5	*0%*	0			1	1	*100%*	0	0		0		
Output 1.3. Capacity building for relevant technical expertise in climate change and environmental conservation through trainings at national an sub-national levels																				
1.3.a. Training workshops at National and Sub-national level conducted			6	1	*17%*	1	*17%*	0			1	1	*100%*	0	0		0		
1.3.b. E-Courses on CC and environmental conservation conducted			7	1	*14%*	2	*29%*	0			1	1	*100%*	0	0		0		

1.3.c. On the Job training on CC for workers in public and Private sector sessions conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Outcome2.Protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies in communities, NGOs and CSOs developed																			
Output 2.1 Protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies by communities, NGOs, CSOs created																			
1.1.a. Protocols for cataloguing and documentation of Indigenous Knowledge Systems developed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Outcome3. Communication strategy for raising awareness on climate change crafted and implemented																			
Output 3.1 Translation of information on the impacts of climate change on agriculture into local languages supp orted																			
1.1.a. Number of publications translated to local languages			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Outcome4.Stakeholder awareness on adaptation to and mitigation of climate change through integration of lessons learnt from application of IKS strengthened																			
Output 4.1 Protocols for cataloguing and documentation of the best practices for indigenous knowledge technologies																			
1.1.a. Number of Meetings and workshops to disseminate protocols for cataloguing and documentations of IKS			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
Goal 3: Capacity building for resource mobilization to access international climate change financing																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*

Outcome1. Proposal writing skills of the stakeholders in the priority sector Strengthened for better resource mobilization for improved climate change response																			
Output 1.1 Relevant expertise in proposal writing skills to produce bankable proposals to access climate financing from international financing mechanism for stakeholders in Government Ministries and Parastatals, Academia, Private Sector, NGOs and CSOs developed																			
1.1.a. Trainings on Proposal Writing techniques conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.a.Trainings on Completion of different funding Templates conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Education Sector Indicators																			
Goal 1: Teacher/ lecturer resource book on climate change																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Adequate tailor made climate change resource material for teachers and lecturers in formal education systems																			
Output 1.1 CC learning Content developed																			
1.1.a. Number of curriculum audits conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Number of publications on curriculum development			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.1.c. Number of trainings on integrating CC into curricula conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Number of Monitoring and evaluation of the teaching and learning of climate change conducted			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		

1.1.e. Teaching standards developed			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
Output 1.2. Content developers to develop resources book/teaching guide recruited																			
1.2.a Number of publications on print media			3003	1	*0%*	5	*0%*	0			1	1	*100 %*	0	0		0		
1.2.a Resource book(s) developed			3004	1	*0%*	6	*0%*	0			1	1	*100 %*	0	0		0		
Output 1.3. Material evaluated and quality assured in respective ministries or by a technical working group																			
1.3.a. Validation exercises in the various line Ministries of the Resource Book conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
Output 1.4. Pilot Testing the Resource book in schools and colleges																			
1.4.a. Pilot Testing the Resource book in schools and colleges conducted			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
Output 1.5. Distribution of the books to all the ten Provinces to schools colleges and universities.																			
1.5.a. Distribution of the books to all the ten Provinces to schools colleges and universities.			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 1.6. Educators Trained on the effects of climate change on development and how to mainstream climate change into development planning at national and sub-national levels																			
1.6.a. Number of in-service training workshops for educators on the integrated climate change curriculum conducted			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
1.6.b. Number of publications-IEC material			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		

1.6.c. Number of continuous training sessions on CC developments and in cooperation into education curricula			11	1	*9%*	6	*55 %*	0			1	1	*100 %*	0	0		0		
1.6.a. Number of teacher guides developed			12	1	*8%*	7	*58 %*	0			1	1	*100 %*	0	0		0		
Goal 2: Capacity building, skills and knowledge development in Informal/non-formal education																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Teaching and learning of climate change at all levels of education (formal and informal) enhanced																			
Output 1.1 Climate change content gaps in the current curricula identified through a survey and current initiatives and documentation reviewed																			
1.1.a.Desk reviews of the current learning initiatives conducted			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Surveys in all institution of higher learning to identify gaps in content of climate change in their curricula conducted			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
Output 1.2 Climate change issues integrated and broadened across in the non-formal education sector through tailor made on the job training, E-courses for use in Technical and Vocational Training Centres																			
1.2.a. Reviews the current course materials that are currently in use in the non-Formal education sector conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.2.b. Meeting with various sector Ministries to develop appropriate on the job training			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		

activities best suited to their contexts conducted																			
Output 1.3 Development and testing of curriculum for the non-formal education for use in all the priority sectors																			
1.3.a. Number of publications development and tested for the non-formal education for use in all the priority sectors			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
Goal 3: Mainstreaming Climate Change in the Higher and Tertiary Education Sector including Teacher Training in Zimbabwe																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Increase in climate change knowledge and synchronizing in the higher and tertiary education and teacher training curricula																			
Output 1.1 Climate change content gaps in the current curricula identified through a survey and review of curriculum development regulations for tertiary institution in order harmonize and standardize the curriculum																			
1.1.a. Assessment of the current climate change curriculum being offered in the various universities done			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Surveys on gaps and synergies present in the current curricula			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.1.c. Review of the regulations for curricula development for Tertiary Institutions in Zimbabwe			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Standardized Climate Change information in curricula to be offered by Tertiary institutions in Zimbabwe-Number of publications			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		

Output 1.2 Short term and long term tertiary level curriculum reviewed in order to incorporate relevant emerging climate change issues																			
1.2.a.Five year interval curriculum review done			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 1.3 Lecturers' capacity developed for the for them to be able to deliver the learning activities/areas in the resource book																			
1.3.a. Training of trainers' workshop for rolling out the new curricula to lecturers			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
1.3.b. On- the Job training sessions for lecturers that are already in-service			11	1	*9%*	6	*55 %*	0			1	1	*100 %*	0	0		0		
Output 1.4 Mainstreaming Climate Change into Teacher Training in Zimba bwe																			
1.4.a. Review of the Teacher Training curriculum to identify the gaps and opportunities for mainstreaming climate change.			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 1.5 Networking groups Established to ensure sustainability																			
1.5.a. Workshops to establish networking groups for climate change education in Zimbabwe conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Health Sector Indicators																			
Goal 1: Capacity building, skills and knowledge development in the Health sector																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*
Outcome1. Improvement in climate change knowledge and skills in health education and training																			

Output 1.1 Develop communication and documentation protocols for CC learning																			
1.1.a. Tracking systems on changes in disease incidence due to CC			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Education kits on CC , packaged for different levels of Health practitioners developed			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.1.c. Learning tools on CC developed			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Number of publications -Health developments and innovations on CC			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.e. Number of training on the effects of climate change on development and how to mainstream CC into developmental planning at sectorial level			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
Output 1.2 Review, Strengthen and Mainstream Climate change into the Curriculum of training for key health personnel such as the nursing staff in nursing schools as well as environmental health personnel																			
1.2.a. Curriculum review done			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.2.b. Training modules developed			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
1.2.c. CC Awareness workshops conducted			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
Goal 2: Capacity building , skills and knowledge development in the Health sector																			
					0%		*0%*			*0%*			*0%*			*0%*			*0%*

Outcome1. **a. Resilience against diseases that occur because of impacts of climate change through education and learning built** **b. Institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society enhanced**																			
Output 1.1 Develop communication and documentation protocols for CC learning																			
1.1.a. Tracking systems on changes in disease incidence due to CC			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Education kits on CC , packaged for different levels of Health practitioners developed			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.1.c. Learning tools on CC developed			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.d. Number of publications -Health developments and innovations on CC			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.e. Number of training on the effects of climate change on development and how to mainstream CC into developmental planning at sectorial level			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
Output 1.2 Climate risk assessment																			
1.1.a Risk screening tools for Rapid Risk Assessment developed			6	1	*17%*	1	*17 %*	0			1	1	*100 %*	0	0		0		
1.1.b. Number of briefing papers on adaptation strategies presented			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		

1.1.c. Technical guidelines for the assessment of climate impacts , evaluation of risks , identification and prioritisation of adaptation options and monitoring and evaluation of adaptation measures			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.1.d Climate impact assessment conducted			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
1.1.e Climate vulnerability assessment conducted			7	1	*14%*	2	*29 %*	0			1	1	*100 %*	0	0		0		
1.1.f Climate adaptation assessment conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
Output 1.2 Build capacity for both curative and preventive staff to be able to link diseases to the effects of the changing climate for example consequence of increased temperatures through continuing education and continuous professional development seminars and training for health professionals																			
1.2.a. Seminars on current topical and emerging climate change issues as part of continuous professional development in the health-conducted			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.2.b. On the Job training sessions for health professionals to enable them to link climate change to prevalence of diseases.			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		
1.2.c. Number of publications in reputable journals and related platforms			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
Output 1.3 Enhance institutional capacities for early warning systems, preparedness and response on possible disease risks caused by extreme weather events at all levels of society.																			

1.3.a. Number of studies on appropriate early warning system that can be adopted for use in the health sector published			10	1	*10%*	5	*50 %*	0			1	1	*100 %*	0	0		0		
Output 1.4 Research to understand the impacts of climate change on the health of women, children, youth and people living with disabilities in Zimbabwe and create an enabling environment that safeguards the Health of these vulnerable groups emanating from pressures of these impacts.																			
1.5.a. Research projects aimed at understanding the impacts of climate change on the health of the vulnerable commissioned			8	1	*13%*	3	*38 %*	0			1	1	*100 %*	0	0		0		
1.5.b. Number conducted-Research seminars aimed at understanding the impacts of climate change on the health of the vulnerable			9	1	*11%*	4	*44 %*	0			1	1	*100 %*	0	0		0		

Annex : 4 List of Participants for the Strategy Development Process

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