

“The Future We Want”

**A Report by the Government
of Zimbabwe**

**To the United Nations Conference on Sustainable Development
2012**

Rio +20

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POLITICAL MAP OF ZIMBABWE



LIST OF ACRONYMS:

ARDA	Agricultural Rural Development Authority
CBD	Convention on Biological Diversity
CFU	Commercial Farmers Union
CITES	Convention on International Trade of Endangered Species
CSO	Central Statistical Office
ECL	Ecological Land Classification
EMA	Environmental Management Agency
ETF	Education Transitional Fund
EU	European Union
FAO	Food and Agricultural Organization
GDP	Gross Domestic Product
IDP	Industrial Development Policy
IFSD	Institutional Framework for Sustainable Development
ILO	International Labour Organization
JPI	Johannesburg Plan of Implementation
KAZA TFCA	Kavango Zambezi Transfrontier Conservation Area
MEAs	Multilateral Environmental Agreements
MDG	Millennium Development Goals
MoESAC	Ministry of Education, Sports, Arts and Culture
NBA	National Biotechnology Authority of Zimbabwe
NGO	Non Governmental Organization
NR	Natural Regions
PPP	Public Private Partnerships
POPs	Persistent Organic Pollutants
UCAZ	Urban Councils Association of Zimbabwe
UNFPA	United Nations Fund for Population Activities
UNDESA	United Nations Department of Economic and Social Affairs
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
UN Habitat	United Nations Habitat
USA	United States of America
WSSD	World Summit on Sustainable Development
ZAADDs	Zimbabwe Accelerated Arrears Clearance Debt and Development Strategy
ZERA	Zimbabwe Energy Regulatory Authority
ZILGA	Zimbabwe Local Government Association
ZIDERA	Zimbabwe Democracy and Economic Recovery Act
ZINWA	Zimbabwe National Water Authority
ZUNDAF	Zimbabwe United Nations Development Assistance Framework

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EXECUTIVE SUMMARY:

Zimbabwe's political commitment to the sustainable development agenda dates back to 1992, when it attended the Rio Earth Summit. It is signatory to the Rio Declaration, Agenda 21 and three Rio Conventions (UNCBD, UNFCCC, and UNCCD) and various international agreements and protocols. Soon after the Rio Summit, Zimbabwe produced its first state of the environment report. In 1998, the country produced its second comprehensive state of the environment report. This is a five hundred page well researched and formulated document. The main purpose of the second state of the environment report was "To support sustainable development decision making through the provision of credible environmental information". The structure and content of the report was a major departure from the earlier State of the Environment report as it deliberately linked the issues of environment and development, including human development.

In 2002, the country enacted one of the key and most comprehensive legal frameworks for environmental management, the Environmental Management Act (Chapter 20:27), whose functions are to provide for the:

- Sustainable management of natural resources and the protection of the environment
- Prevention of pollution and environmental degradation
- Preparation of the Environmental Management Plan and local environmental plans
- Setting up of supporting bodies and institutions, including the Environmental Management Board, Environmental Council, and the Environmental Management Agency
- Setting up of Environmental Fund

Since the enactment of the Environmental Management Act (Chapter 20:27), a number of institutions to support environmental management and protection of natural resources have been established. A key institution established through the Act is the Environmental Management Agency (EMA).

In the same year, the country participated in the World Summit on Sustainable Development (WSSD). The major outcome of WSSD was the Johannesburg Plan of Implementation (JPI). Through the JPI, the WSSD, reaffirmed sustainable development as a central element of the international agenda and gave new impetus to global action to fight poverty and protect the environment. In addition the understanding of sustainable development was broadened and strengthened, particularly the links between poverty, the environment and the use of natural resources. The Summit supported a proposal to establish a world solidarity fund for the eradication of poverty.

In the aftermath of the WSSD and the adoption of the JPI, the Ministry of Environment and Tourism held several feedback sessions dialogues in order to develop a consultative national

response Strategy to the JPI in 2004. Members of the National Committee on Sustainable Development played a key facilitator's role in the consultation process leading to the adoption of a national response document titled "Zimbabwe National Response to the Johannesburg Plan of Implementation". The structure and content of the national response action plan was designed to respond to the key issues and targets raised in the Johannesburg Plan of Action (JPI), namely economic, environmental and social issues. In the same period the country produced its first progress report on the Millennium Development Goals. Thus the JPI and the MDGs created a solid platform for implementing a sustainable development agenda for the country. From 2002, just when the country was embarking on the implementation of its development agenda, through the land reform program, some sections of the international community applied economic sanctions on the country. This impacted negatively on the capacity of the country to implement the activities outlined in the JPI and MDG targets. It is during this period when the country's social, economic and environmental indicators declined. This included a remarkable decline in the health service delivery, education, water and sanitation and energy. The poor economic performance resulted in the country recording the highest levels of inflation in the world. In 2008, the country held national elections, which did not produce an overall winner resulting in a coalition government made of three political parties. The adoption of a multi currency in 2009 reduced the high inflation levels to single digit and positive economic growth figures. The past three years has witnessed improvement in the country's economic performance, with a major turnaround in the education sector.

Zimbabwe is committed to the objectives set out in the forthcoming Rio plus 20 Summit. It supports the concept of green growth on the understanding that the strategy does not:

- i. Create new trade barriers
- ii. Impose new conditionalities on aid and finance
- iii. Widen technology gaps or exacerbate technological dependence of developing countries on developed countries.
- iv. Restrict the policy space for countries to pursue their own paths to sustainable development.

The country also supports the proposed UN reforms in the following areas:

at the international level

- a) The transforming the UN Commission on Sustainable Development into a full council on sustainable development
- b) Strengthening UNEP

at the national level

The country supports a strong UN coordination through the office of the UN Resident Representative and joint programming through the UNDAF process. Implementation of the sustainable development agenda should be mainstreamed into key national development programs like the Medium Term Plan and the MDG framework. Key UN institutions that deal

with issues of water and sanitation, human settlements and technology development and transfer should be upgraded to ensure adequate support for national programming. An accelerated implementation of the MDGs should be prioritised to ensure the achievements of targets and the discussion on the transition to Sustainable Development Goals. A comprehensive multi stakeholder institutional framework in the form a national sustainable development council will be established.

INTRODUCTION AND BACKGROUND:

Zimbabwe is a land locked country bounded by Zambia in the north, Mozambique to the east, South Africa to the south, and Botswana to the west. It also shares a small border with Namibia at the point of the Caprivi Strip. It is located along the Tropic of Cancer but lies wholly to the north of the Tropic of Capricorn, covering an area of 390, 757 square kilometres (sq Km). Its altitude ranges between 197 – 2,592 metres but most of the country lies more than 300 m above sea level, with 80% higher than 600m. Less than five percent is above 1 500m. The country's main rivers include the Zambezi, Save and the Limpopo. The rivers constitute the central watershed, which is on the northeast –southwest alignment, which determines Zimbabwe landforms.

For about 90 years preceding independence, the territory was under British colonialism. It is during that period that the foundation of virtually all sustainable development challenges issues facing the country today were laid. Issues such as social inequalities (segregation on race), slave labour, and land degradation, siltation of rivers, soil erosion, inappropriate wild life management policies and command and control laws can be traced back to colonial policies and programmes. The majority of the black population was marginalised by being pushed to the poorest parts of the country with poor soils, unreliable rainfall and under developed infrastructure including schools, roads, power supply and medical facilities.

Several examples of laws that marginalised the local people can be sighted. The 1927 Water Act excluded the local people in participating in the decisions of Water Court because only registered voters could do so. The local people were disenfranchised. In 1930, the Land Apportionment Act divided all the land into European areas and Africa reserves. The law entrenched the dispossession of the indigenous people and expunged any claim to natural resources that they had. Other Acts that enforced the disposition of natural resources of black Zimbabweans included, The African Land Husbandry Act, 1951, the Tribal Trust Land Act, 1967, and the Land Tenure Act, 1969 (Zimbabwe State of the Environment 1998).

The impacts of some these colonial acts are still evident, as the majority of the population still resides in unproductive and overcrowded land. Land is central to social, economic and ecological issues in Zimbabwe, making it critical to the success of sustainable development to date.

At independence in 1980, Zimbabwe inherited a relatively sophisticated and diversified economy by Sub-Saharan Africa standards, with developed primary sectors and inter-sectoral linkages. Agriculture, mining and the manufacturing sectors accounted for 15, 8 and 25% of the Gross Domestic Product (GDP) respectively. Exports were also diverse, based on a variety of agricultural and mineral products. In the past three decades the Zimbabwean economy has experienced a cyclical pattern of growth. Three distinct phases can be mapped. The first being a stable growth from 1980-1991, a decline from the 1990s to 2000 as a result of a World Bank led structural adjustment programme, further economic decline from 2002 to 2009.

This report the “The Future We Want” highlights Zimbabwe’s achievements and challenges since the 1992 Earth Summit in Rio de Janeiro. It responds to the key themes for the Rio +20 Summit in June 2012 and sets out a framework action plan up to 2015. The report identifies key national priorities for the country’s greening the economy path and proposes an institutional framework that will support a comprehensive long term sustainable development strategy and plan.

The report is a result of an extensive consultative process that began in October 2011, through a multi stakeholder meeting in Kariba in January 2012. This workshop brought together stakeholders from various sectors amongst them government, private sector, non-governmental organisations and local government representatives.

As a result of the workshop deliberations, a draft report was produced highlighting the country’s achievements and challenges of implementing the sustainable development agenda as outlined at the Rio Earth Summit (Agenda 21), the World Summit on Population and Development (1994), the World Summit for Social Development (1995), the Millennium Summit (2000), the World Summit on Sustainable Development (2002) and (2005) World Summit. Based on the draft report further consultations were held with key stakeholders including the UN Country team, private sector organizations supporting the sustainable development agenda, key civil society organizations, and development partners.

History of Rio+20 Summit

The Rio +20 Summit will run under the theme “*Green Economy in the Context of Sustainable Development and Poverty Eradication*” and “*Institutional Framework for Sustainable Development*”. It is important to understand the origins of the three key terms, sustainable development, the green economy and institutional framework for sustainable development.

The concept of sustainable development has its origins in the link between human development and environment. It emerged from anxieties that accompanied the triumphant rise in the living standards enjoyed in developed countries during the second half of the 20th century. Encapsulated in the club of the Rome’s 1972 publication of the Limits to Growth, this led to two conclusions. The life sustaining role of the biosphere was at risk from open ended consumption of natural resources and at the same time the realization that the case of environment protection would not be isolated from the rights of poor countries to develop.

There is evidence that human induced environmental change has intensified over the past 50 years, resulting in problems such as climate change, loss of biodiversity, desertification and increased levels of poverty. Efforts to integrate the environment and the economy became more pronounced at the Stockholm Conference in June 1972, the UN Conference on Human Environment (UNCHE). The Stockholm Conference produced three major set of decisions:

- The Stockholm Declaration
- The Stockholm Action Plan

- Establishment of the UN Environment Programme (UNEP)

In 1983, the UN General Assembly (UNGA) established an independent commission to formulate a long term agenda for action on environment and development. As part of the action plan, in 1987, the World Commission on Environment and Development was established, commonly known as Brundtland Commission. The Brundtland Commission issued the first comprehensive report on environment and development “Our Common Future”. The report starts by highlighting a key message “The environment is where we all live, and development is what we all do in an attempt to improve our lot within that abode. The two are inseparable”

The report stressed the need for development strategies in all countries that recognized the limits of the ecosystems ability to generate itself and absorb waste products, it emphasised the link between economic development and environmental issues, and identified poverty eradication as a necessary and fundamental requirement for environmentally sustainable development. The report argued that “inequality is the earth’s most important environmental problem”.

It is in the Brundtland Commission report that the first definition of sustainable development was provided “**as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs**”. This is the definition that has been widely adopted globally and indeed in the Zimbabwean context.

The second terminology that will feature in this report is the concept “Greening the Economy”. Although there appears to be differing views of what the *Green Economy* entails, its purpose and how it relates to sustainable development, the working definition that this report will use is: “**A green economy is one that results in improved human well being and social equity, while significantly reducing environmental risks**” (UNEP).

A more simpler and practical definition of green economy is by Karl Burkart, who defines a green economy based on six main sectors, that is;

- Renewable Energy (solar, wind, geothermal, biogas, biofuels, and fuel cell)
- Green Buildings (green retrofit for energy and water efficiency, residential and commercial assessments)
- Clean Transportation (alternative fuels, public transit, hybrid and electric vehicles, car sharing and car pooling programs)
- Water Management (Water reclamation, greywater and rain water systems and water purification)
- Waste Management (recycling, municipal solid waste, Superfund cleanup and sustainable packaging)
- Land Management (organic agriculture, habitat conservation and restoration, urban forestry parks, reforestation, afforestation and soil stabilization)

Overallly the green economy should be able to meet three fundamental principles, environmental sustainability, socially just and rooted locally with global benefits.

The third term that will feature in the report is “the institutional framework for sustainable development”. In the preparatory process for the Rio Summit in 1992, there were a number of proposals for the institutional reform to address the challenges of sustainable development. At the global level the United Nations Environment and Development Conference created new institutions among them the Commission on Sustainable Development, tasked with the follow up to the Rio Conference. Whilst at the national level the establishment of national sustainable development committees / council was encouraged. The need to strengthen the institutional framework for Sustainable development (IFSD) at international, regional, national and local level has been one of the major concerns in advancing the sustainable development agenda. This report will provide the country’s position on the possible ways of reforming and improving the current institutional framework for sustainable development, in addition to providing a vision for a national framework for action for the implementation of Rio+ 20 Summit resolutions.

The report is structured into five main chapters, an introductory chapter that provides a background to the country and the Rio+ 20 Summit objectives, the second chapter reviews the political commitments that the country has made to date in the implementation of the 1992 Rio Summit resolutions and the various declarations and agreements, whilst the third chapter highlights the country’s position towards the green economy concept in key sectors. The chapter identifies national priority projects that could be considered for support under the green economy initiative.

The fourth chapter responds to the institutional challenges in implementation of the sustainable agenda and the greening economy initiative. The chapter summarises the country’s position on the UN reform proposal at the international, regional and national level. It provides concrete recommendations on how the country can strengthen the coordination of national institutions tasked to develop, implement and monitor the post Rio +20 Sustainable Development Agenda.

The fifth chapter suggests a national framework action plan with a broad process action plan that defines the post Rio +20 action, including a transitional period to a green economy (2012 -2015). The post Rio Action Plan takes into consideration the various development frameworks that are already under implementation i.e. the Millennium Development Goals, the country’s Medium Term Plan, the country’s industrial and trade policies and the Zimbabwe United Nations Development Assistance Framework (ZUNDAF) and several other policies and development strategies. The chapter also responds to the proposal on developing Sustainable Development Goals (SDGs) that will be operational after the Millennium Development Goals post 2015.

The last chapter provides some key milestones in drawing a post Rio Action and the resources required (human, financial and technological). It calls for the full support of international community including the UN agencies in the design and implementation of the Action plan. Countries, private companies and non state actors that are already implementing successful projects/ programs and policies are requested to collaborate with the various entities in the country through partnerships and cooperation platforms.

ZIMBABWE TWENTY YEARS AFTER THE RIO SUMMIT

POLITICAL COMMITMENT

Evidence of the Zimbabwean Government political commitment to the sustainable development agenda as articulated in the Rio Declaration and Agenda 21 is the publication of the first state of the environment report a few months after the conclusion of the Earth Summit in Brazil. The first state of the Environment Report was published in 1992. At that time there was no established program for the state of environment reporting. Since then, a number of steps have been taken that provide a firmer foundation for the State of Environment Reporting in the country.

The following are some key political achievements and commitment to issues of sustainable development since the landmark Rio Summit:

- The high level political participation of the country in the Earth Summit and the signing of the Earth Charter and associated protocols in 1992.
- The Establishment of the National Environmental Statistics Committee which set up national sustainable development indicators and associated data base by the Ministry of Environment and Tourism in 1995.
- From 1996 a number of projects and programs that responded to the issues raised in the Rio Declaration and Agenda 21, including the three Rio Conventions (UNCCD, UNFCCC, and UNCBD) were formulated.
- In 1996 the Ministry of Natural Resources and Tourism initiated the preparation of the second national state of the environment report
- In 1997 the country participated in the Rio+5 process, where further commitments were made to follow up on the Rio Declaration
- In 1998, the Ministry of Mines Environment and Tourism tabled its first draft of the Environmental Management Act
- In 2002, the Government enacted the

In the same year the Ministry published the second state of the Environment Report. This is a five hundred page well researched and formulated document. The main purpose of the document was clearly stated, “To support sustainable development decision making through the provision of credible environmental information”. The structure and content of the report was a major departure from the earlier State of the Environment report as it deliberately linked the issues of environment and development, including human development.

The report sought to draw three complementary aspects: the pressure state response model (P-S-R), sustainable development model and the ecosystems approach that takes into account other elements besides environment, the social and economic.

The pressure state response model meant to simplify the technical jargon normally associated with environmental issues by presenting issues using common illustrations understood by common people. The following questions provided a basic framework for the P-S-R model:

- What is happening in the Environment (environmental conditions and trends)
- Why is it happening (link to human activities)
- Why is it significant (environmental, social and economic consequences)
- What are we doing about it?

The Sustainable Development Needs Assessment assessed the country's needs and challenges in three main areas: the economic perspective (production of goods and services to support society), the environment perspective (the conservation and sustainable use of natural resources), and the social perspectives (enhancement of quality of life). Thus for the first time, the state of the environment reporting took into consideration the social and economic aspects of development.

The Ecosystems Approach is intended to provide information on the state of the environment in an integrated manner. This ensures a better understanding of the context under which environment is changing, the main drivers of the change, assesses the full range of the change and develop a broad response framework that takes into account the environmental, social and economic perspectives. It is in the 1998 State of the Environment Report that an ecological land classification was developed for the country. This was a departure from the earlier use of the agro-ecological classification that was based on an agricultural perspective.

By 1998, Zimbabwe was on a good path to developing the country's framework for sustainable development. Thus during the period leading up to the World Summit on Sustainable Development (WSSD), the focal point for sustainable development, Ministry of Environment and Tourism conducted a number of consultative workshops that culminated in the production of a national report on the country's achievements since UNCED.

Coming ten years after the Rio Summit, the WSSD was convened in Johannesburg, against a worldwide backdrop of increasing poverty, growing inequalities in the distribution of resources, unfair trade, inadequate social service provision, HIV/AIDS pandemic, civil strife and political tension, water scarcity, energy deficiencies, pollution and land degradation. The major outcome of the WSSD was the Johannesburg Plan of Implementation. (JPI)

Johannesburg Plan of Implementation (JPI)

Through the JPI, the WSSD, reaffirmed sustainable development as a central element of the international agenda and gave new impetus to global action to fight poverty and protect the environment. In addition the understanding of sustainable development was broadened and strengthened, particularly the links between poverty, the environment and the use of natural

resources. The Summit supported a proposal to establish a world solidarity fund for the eradication of poverty.

For the first time in the history of global UN conferences, the views of civil society were given prominence. Over 8000 civil society participants attended the summit, reinforced by parallel events which included major groups, such as, NGOs, women, indigenous people, youth, farmers, trade unions, business leaders, the scientific and technological community and local authorities.

The following key commitments, targets, and timetables were agreed upon:

Poverty Eradication

Halve, by year 2015, the proportion of the world's people whose income is less than \$1 a day and the proportion of people who suffer from hunger (reaffirmation of the Millennium Development Goals).

By 2020, achieve a significant improvement in the lives of at least 100 million slum dwellers as proposed in the "Cities with slums".

Establish a world solidarity fund to eradicate poverty and to promote social and human development in developing countries.

Water and Sanitation

Halve, by the year 2015, the people without access to safe drinking water.

Halve, by the year 2015, the proportion of people who do not have access to basic sanitation.

Energy

Diversify energy supply through increase in the supply of renewable energy, establishing new energy markets, and improved energy efficiency in addition to the promotion of research and development in the energy sector.

Chemicals

Promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste including the Rotterdam Convention and Stockholm Convention. In addition to facilitating the implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer. This should be supported by improving access by developing countries to alternatives to ozone-depleting substances and compliance with the phase out schedule under the Montreal Protocol.

Sustainable development For Africa

The JPI also established key targets for the Sustainable Development for Africa through the NEPAD platform. Two main areas were identified for support i.e. energy and food security.

Institutional Framework for Sustainable Development

The JPI targets were to be supported by adopting new measures to strengthen institutional arrangements for sustainable development at the international, regional and national levels. Integration of environmental, social and economic dimensions of sustainable development in the work programs of the UN agencies was to form part of the broader strategy, including regular inter agency coordination.

Post WSSD Process in Zimbabwe

In the aftermath of the WSSD and the adoption of the JPI, the Ministry of Environment and Tourism held several feedback sessions dialogues in order to develop a consultative national response Strategy to the JPI in 2004. These consultations and dialogues included stakeholders from central government, representing ministries and departments at national, provincial and district levels as well as local authorities and civil society representatives. In April 2004, a multi stakeholder conference was held in Kadoma to deliberate and adopt a national response strategy to the JPI. The Kadoma workshop was a culmination of a long process of consultation from district to provincial levels. Members of the National Committee on Sustainable Development played a key facilitator's role in the consultation process leading to the adoption of a national response document titled "Zimbabwe National Response to the Johannesburg Plan of Implementation".

The Zimbabwe National Response to the Johannesburg Plan of Implementation

The Zimbabwe Response to the Johannesburg Plan of Implementation was spearheaded by the National Committee on Sustainable Development. It was developed through a participatory process that involved representatives of stakeholders of all the eight administrative provinces of the country. Through provincial workshops, the representatives drafted provincial action plans based on the development challenges faced by the districts.

The provincial workshops were held under the theme: "*A Framework for Action to Fight Poverty through Sustainable Development, Thinking Globally and Acting Locally*". The main objectives of the workshops were twofold:

- Generate a comprehensive response to the JPI taking into account the three pillars of sustainable development (economic, social and environmental)
- Propose an institutional structure that would ensure the effectively implementation of the JPI response action plan and monitoring process

The provincial workshops culminated in a national workshop that consolidated the results of the consultation into a national response action plan in April 2004.

STRUCTURE AND CONTENT OF THE ZIMBABWE RESPONSE TO THE JPI

The structure and content of the national response action plan was designed to respond to the key issues and targets raised in the Johannesburg Plan of Action (JPI), namely economic, environmental and social issues. Each provincial administrative area identified a key priority issue

in each sector. Below is a summary of the key priority issues identified in the national action plan, the specific objectives under each goal and suggested strategic actions.

ECONOMIC PRIORITIES

In the economic pillar the main goal was identified as:

“Poverty Reduction through economic growth”. To implement this goal, five objectives were formulated and agreed upon;

- “To formulate nationally driven/ home grown poverty reduction policy and programmes.

Strategic Actions to achieve objective:

- i. Mobilize resources (human, technical, financial and material) to ensure strategies are implemented at the provincial and district level
 - ii. Harmonize and co-ordinate poverty reduction efforts of various stakeholders
 - iii. Decentralise ownership, access and control o resources to local level
- To develop social and productive infrastructure

Strategic Actions to achieve objective

- i. Promote private sector involvement in infrastructure development through PPPs, BOT and other mechanisms
 - ii. Promotion of local participation in the development and maintenance of infrastructure
 - iii. Develop appropriate institutional frameworks for the identification and implementation of infrastructural projects
- To build the capacity of institutions and communities to create wealth
 - i. Provide information and empower communities to own means of production
 - ii. Facilitate the provision and management of resources to capacitate institutions and communities
 - To increase agricultural production on a sustainable basis within the context of Zimbabwe’s agrarian reform.
 - i. Improve market access for agriculture and natural resource products.
 - ii. Build capacity for value addition to agriculture and natural resources
 - iii. Develop and improve irrigation schemes

Progress in implementation of the Economic Pillar

Whilst the country has not achieved the economic targets set out in the post WSSD national response action plan, due to various factors, including periodic droughts, shortage of skills due to out-migration, lack of budgetary support from the international financiers. The lack of budgetary support was mainly as a result of the imposition of economic sanctions by the European Union and the United States Government in 2001.

The United States of America (USA) introduced economic sanctions in Zimbabwe through the Zimbabwe Democracy and Economic Recovery Act (ZIDERA) (2001). Through this enactment Zimbabwe's access to finance and credit facilities were effectively incinerated. ZIDERA empowers the US to use its voting rights and influence (as the main donor) in multilateral leading agencies, such as the IMF, World Bank and the African Development Bank to veto any applications in Zimbabwe for finance, credit facilities, loan rescheduling and international debt cancellation. The US cites human rights record, political intolerance and the absence of the rule of law as the main reasons for the imposition of the sanctions. Once the World Bank and IMF stopped doing business with Zimbabwe, this had an immediate effect on the country's credit and investment rating.

At the same time the European Union (EU) and Australia also imposed sanctions on the country. The EU claims that sanctions in Zimbabwe are ring fenced and targeted on a few individuals. The reality on the ground is that the effects are being felt throughout the entire economy. In an effort to refine the effectiveness of sanctions through disguised means, there has been a shift towards the so called targeted sanctions, which impose travel bans and freezing of foreign assets and bank accounts of targeted individuals or entities. The current EU/USA sanctions impact mainly on trade and finance. Trade finance has taken the form of denied access to foreign lines of credit which ordinarily support external trade. The market of the country's export competitiveness is decreasing under adverse perception. Financial sanctions on the other hand impede financial flows such as aid in short and long term loans, thus reducing foreign currency flows to Zimbabwe.

The sanctions have not only affected government operations, but those of non governmental organizations. The National Association of Non Governmental Organizations (NANGO) confirms that there has been a major withdrawal of donor funding agencies since the imposition of sanctions. The pullout has resulted in the closure and pull out of projects supported by NGOs.

Overall, the impact of targeted or non targeted sanctions creates a negative perception about Zimbabwe by the world at large. These negative perceptions make it difficult for the private and public enterprises to secure funding. From 2001 to date, the Government of Zimbabwe, the private sector and non-governmental organizations have not been able to follow up on the commitments made on the JPI national response action plan due to lack of budgetary support (in form grants, loans and FDIs) that is availed to most of the developing countries.

Table 1: Multi lateral Financial Disbursement (US\$)

Year	IMF	World Bank	AfDB
1992	216 150 000	299 592 641	180 428 226
1993	65 656 168	226 810 152	37 966 668
1994	76 642 125	2266 810 152	37 9666 823
1995	75 492 125	0	11 090 644
1996	0	3 299 074	0
1997	0	4 037 287	1 940 910
1998	53 802 392	0	0
1999	32 233 993	0	0
2000	0	0	0
2001	0	30 526 725	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

Source: Reserve Bank of Zimbabwe

- IMF stopped disbursement to Zimbabwe in 1999
- The World Bank stopped disbursement in 2001
- The Africa Development Bank stopped disbursements in 1999.

Despite the lack of funding to undertake key economic programs as identified in the JPI national response action plan progress was made in transforming the agrarian structure of the country. By 2010, the agrarian structure had been reconfigured to allow access to land by the majority black farmers. In pre-2000 agrarian structure, most of the unequal agrarian power relations were transmitted through control of land by few land owners who influenced social relations of agricultural production. The number of peasants and small scale farmers has increased, and together they now control over 80% of the land (S. Moyo 2010). A broadly based agrarian capitalist class, built on former and new farming elites has also emerged. The smaller segment of the large scale capitalist farmers now includes both black and white farmers, but their land holdings have been substantially downsized.

In the past ten years there has not been any comprehensive poverty assessment study that provides trends on how the country has performed in eradicating poverty. The forthcoming census to be held in August 2012 might shade light on the current levels of poverty and how they compare with the pre WSSD levels.

Dimensions of the Social Pillar:

On the social pillar the national response action plan identified two main goals:

- To improve access to safe drinking water and sanitation the key objective is
 - i. To ensure that at least 80% of the population has access to safe drinking water and sanitation by 2010

The key strategic actions to achieve this objective were:

- i. Expand rural , water sanitation programs to newly resettled areas
 - ii. Improve water and sanitation facilities in urban and peri urban areas
 - iii. Set standards and monitor pollution
- To improve health and education facilities three key objectives were identified;
 - ii. Reduce the child mortality rate by 60% by 2010
 - iii. Achieve Universal Education by 2010
 - iv. Improve the living conditions of the marginalised and poor

The following key strategic actions were identified:

- i. Expand immunization programmes to cover all children under five
- ii. Strengthen existing Expanded programme on immunization
- iii. Strengthen current training in midwifery
- iv. Improve water and sanitation facilities in the urban and peri urban areas

- v. Strengthen prevention programs on HIV/ AIDs and facilitate timely treatment
- vi. Provide health and education facilities with an 8 km radius
- vii. Provide social security services to the vulnerable
- viii. Provision of information facilities to all remote areas and at local level

The significant decline of the economy from 2002 to 2008, hyperinflation, political standoff between the Government of Zimbabwe and some sections of the international community (including the imposition of economic sanctions) had an immense social cost in terms of rising poverty, unemployment, mass emigration, and decline in the health and education sector.

Perhaps the most spectacular example of the deterioration in the social sectors was cholera outbreak of 2008 and 2009, resulting in 4282 deaths. This was the worst outbreak of cholera in Zimbabwe's history. This underscored the extent of the deterioration of basic water, sanitation and health services.

The exact coverage of water and sanitation services in the country is unclear. Government figures derived from the Ministry of Health and Child Welfare (MoHCW) data on sanitation coverage, the National Action Committee (NAC) inventory and urban council estimates that in 2008, 46% of Zimbabweans had access to improved sanitation facilities.

The implosion of the economy, collapse of the public sector investment and limited external financing from 2002 has meant minimal new investment in service delivery for nearly a decade. The failure to repair or maintain an already aging infrastructure has led to severe decline in services. Reports from urban settlements, give a consistent picture of high levels of pumped water that is not accounted for, distribution systems in need of repair, and an effluent and raw sewage outflows entering rivers and dams. Lack of water flow causes frequent water blockages. Water treatment plants are dysfunctional, do not have the power to pump consistently or lack chemicals. Intermittent power supply to water services is a major contributing factor (GOZ and UNICEF 2010).

The education sector was also in crisis, in 2008, a majority of government supported schools effectively closing for an entire academic year as teacher salaries dropped to the equivalent of less than \$2 a month. A number of targets set out in the post WSSD national action plan were therefore not achieved. However, in 2009, in response to the challenges faced in the education sector, the Ministry of Education, Sports, Arts and Culture (MoESAC) launched the Education Transitional Fund (ETF). The ETF was aimed at improving the quality of education for children in Zimbabwe as a response to the crisis the sector faced in the preceding years.

The Education Transitional Fund (ETF)

Established in September 2009, the ETF provides a platform for donors to provide assistance to the education sector, through the Ministry of Education, Sports and Culture, whilst UNICEF manages the funds, with other technical partners providing support as required. The ETF provides coordinated, coherent donor support for key educational priorities. The rapid

assessment conducted by the National Education Advisory Board revealed that over 20% of the primary schools had no textbooks at all for key subjects. The text book ratio in 2008 was said to be 10 pupils to one book, but in more remote and vulnerable areas this ratio is significantly exceeded.

The specific objective of the ETF was to procure and distribute full sets of core curriculum text books to all 5 500 primary schools in Zimbabwe within one year and ensure a maximum ratio of two pupils to one text book. The ETF was to support pupils with stationery kits including exercise books, rulers, pencils and pens, including teachers guide for every primary school.

The ETF has mapped all schools, including satellite schools, in 71 out of the 73 education administrative districts, using GPPS and has updated the Zimbabwean Schools Map. The ETF is also supporting the MoESAC with the provision of technical assistance to support policy development, planning and implementation capacity. In addition assistance will be provided to support the Ministry in its strategic planning plan. The fund will support secondary procurement and distribution of textbooks.

The ETF is the first national-scale assistance to the education sector in more than a decade and is a good example of what can be achieved through collaborative partnership.

The first phase of the ETF has created significant positive forum for improving education service delivery. An ETF annual review organised in September 2010 to review and assess the implementation of the ETF programme concluded that the programme helped to provide a stimulus for quality education in Zimbabwean primary schools through the procurement of textbooks and learning materials. The review noted that “cost effective textbook procurement has delivered far in excess of initial expectations and is a major success. The model has allowed UNICEF to negotiate and procure textbooks for an average cost of less than \$1 per book. The current pupil to textbook ratio now stands at 1:1 compared to 10: 1 three years ago (UNICEF 2010 and 2011)

ENVIRONMENTAL PRIORITIES

On the environment pillar the main goal in the national response plan was:

The sustainable management of natural resources.

This was to be achieved through four main objectives:

- Develop integrated water resource management strategies
- Improve access to alternative and affordable sources of energy
- To promote sustainable land use and management
- To promote sustainable use of natural resource

Key strategic actions to achieve these objectives were:

- i.** Lobby for resource from all stakeholders for construction of water resources for multi use
- ii.** Promote management and rehabilitation of catchment areas, including wetlands
- iii.** Promote water harvesting techniques
- iv.** Expedite rural electrification programmes
- v.** Promote research and development and technology transfer
- vi.** Develop a national waste management strategy
- vii.** Formulate a National Intellectual Property Rights Policy
- viii.** Promote decentralization of natural resources management, access and use and benefit sharing.

Since the adoption of the Zimbabwe's national response action plan the country's state of environment has continued to decline, despite significant efforts in the establishment of key institutions and policies to support environmental management. The last state of the environment report 2010 outlines the status of the environment in key areas: socio economic, atmosphere, land, water, waste management, biodiversity and ecosystems.

On the socio economic, whilst in a number countries rapid population growth has been identified as major challenge to sustainable development, Zimbabwe population growth rate is not perceived as a challenge (below 3% in the last decade). The main challenges on the country's population has been the high rural –urban migration, high levels of unemployment in urban areas, poor water and sanitation and inadequate capacity to deal with health related challenges including HIV/AIDS, malaria TB, and high levels of child and maternal mortality.

On state of the country's atmosphere, the main drivers and pressures to negative changes include, use of fossil fuels, biomass for energy, veldt fires, waste , indoor air pollution and increased number of motor vehicles. With regards to stratospheric ozone depletion, the country has made progress towards the phasing out of the ozone depleting substances, and thus meeting its obligation under the Montreal Protocol.

On water, the key challenges relate to water governance, access and quality. The competing needs among sectors of agriculture, urban, mining, domestic and industrial continue to exacerbate the challenges in water management. The frequent and periodic droughts due to the changes in climate have resulted in serious water shortage in both the rural and urban areas. Pollution from cities' sewage treatment plants, industrial effluent, mining and agricultural activities are a major cause to poor water quality and increased cost to water treatment. The impacts of water pollution have resulted in increased eutrophication of water bodies, loss of aquatic biodiversity, invasion of alien species in water bodies, increased incidences of water borne diseases including (cholera, diarrhoea and typhoid). The county has however made

progress in introducing policies and strategies to enhance an integrated water resource management framework in the form of water catchment areas/councils.

On urban issues, one of the distinctive features of the urban environment in Zimbabwe is the relative absence of informal settlements right until the decline of the economy during the period 2000 and 2005. Urban planning and enforcement of urban regulations was in place until the late 1990's. The economic decline led to the spiralling of informal settlements. In 2005, the Government of Zimbabwe embarked on an operation to clear all unauthorised structures in major cities, especially in the capital city, Harare. This operation code-named *'Murambatsvina'* was met with varying perceptions in and outside the country. Some sections of the population supported the move whilst others felt the operation was too harsh especially as it targeted the very poor. The current rapid growth of the urban population due to urban migration, poses new risks of the growth of unplanned settlements similar to the situation in 2005. This risks the outbreak of water and sanitation related diseases in urban areas.

On biodiversity, the country has made significant progress in managing and protecting its biodiversity both plant and animal. The country being signatory to key biodiversity international instruments (UN Convention on Biodiversity (UNCBD), Convention on International Trade of Endangered Species (CITES), Convention on Migratory Species) has played a major role in the sustainable management and conservation of biodiversity. The country is also a signatory to a number of regional transboundary conservation parks including one the largest transboundary park in the world the Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA). The country hosts a number of world heritage sites including the Mid Zambezi Biosphere.

Overall, despite the challenges that the country faces in the increased incidences of poaching in protected areas and national parks, the country is heralded as a world leader in the sustained and commercial use of wildlife and other natural resources. This has been achieved through the enabling legislative framework that allows land owners and communities to benefit from the country's natural resources including minerals.

One of the major achievements of the country in the post WSSD era has been the recognition and application of the ecosystems approach to planning and management of the country's natural resources. The delineation of the country into five ecoregions (Central, Eastern Highlands, Kalahari, Save- Limpopo and Zambezi) has enabled the development planners, to monitor how the human population interacts with environment in each region and the effects of this interaction.

Agreed Institutional Framework for National Response Action Plan

One of the key challenges faced in the implementation of the national response action was the institutional arrangements to support implementation of national sustainable action plan post WSSD. The main institution driving the national action plan was the National Committee on Sustainable Development. The committee was housed in the Ministry of Environment and Tourism and staffed by two personnel, a Programme Manager and Administrative Secretary. It had no legal status and was funded by a medium term facility provided by UNDP. When project

funding came to an end, the National Committee of Sustainable Development stopped functioning as it lacked neither financial resources nor technical support. This is despite a recommendation made at the national stakeholder workshop (launching the action plan) to give a legal recognition of the National Committee on Sustainable Development through a statutory instrument. The national stakeholder workshop had also recommended the need to establish a national sustainable development fund through which government, the private sector, donors and NGOs can provide support for sustainable development initiatives. The workshop had also recommended the need to coordinate the implementation of the action plan starting from the lowest administrative units of the country, that is, at the village level. The weak institutional framework attached to the action plan was a major limitation to the successful implementation of the post WSSD national action plan.

This chapter has attempted to provide the key challenges faced in the implementation of the country sustainable development agenda post WSSD. The lessons learnt from the country's implementation process will provide critical directions in designing the next phase of the country's sustainable development framework.

The targets set in the JPI national response action plan and the MDGs have not been met. The challenge for the Government, private sector, civil society and the international community is finding ways of working together so as to catch up with lost opportunities, by designing a recovery, reconstruction and development strategy that will utilise the current opportunities created by the RIO+20 Sustainable Development agenda. For this to happen a consensus on national priorities to support the sustainable development agenda has to be agreed upon by all stakeholders including the private sector.

KEY SUSTAINABLE ISSUES TOWARDS AND POST RIO +20

The country's Medium Term Plan (MTP) 2011- 2015 will form the basis of the key thematic issues to be addressed under the Sustainable Development Agenda in Post Rio +20 Summit. The main goal of the MTP is to transform the economy, reduce poverty, create jobs, maintain macroeconomic stability and restore the economy's capacity to produce goods and services competitively that is on sustainable basis. The MTP is a five year plan that is supported by results and an implementation matrix.

It is premised on three key strategic areas:

- Employment Creation and Poverty Reduction
- Human Development and Social Security
- Infrastructure Rehabilitation and Development

The challenge for the country is to ensure that the MTP is implemented within a sustainable development framework that recognises the greening economy concept as a key platform and strategy. The sustainable development framework will be supported by the current ongoing programmes, strategies and policies in the country. These include the country's MDGs and Targets, the ZUNDAF 2012-2015, the Industrial Policy and Strategy, the Trade Policy,

Agricultural Policy, Environmental Policy, Science and Technology Policy and Environmental Education Policy and many other relevant national development mechanisms and platforms.

In implementing post Rio+20 agenda the following key thematic areas will be a major focus:

- Agriculture and Food Security
- Water
- Energy
- Industry
- Mining
- Biodiversity, Climate Change and Desertification
- Waste Management

A number of cross cutting issues will be mainstreamed in the framework plan. These include Gender, Poverty Eradication, Employment Creation, Technology Transfer and Education for Sustainable Development. A more elaborate process to develop the action plan will commence after the conclusion of the Rio Summit in June 2012. This report provides some of the key elements that will form the post Rio+ 20 Action Plan.

The action plan is also expected to establish a national institutional framework to support a well coordinated implementation process that involves all the major groups in the country including UN agencies, the private sector, NGOs, farmers, local authorities, and the academic and scientific community and development partners.

ZIMBABWE'S POSITION ON THE GREEN ECONOMY INITIATIVE

There are several compelling reasons why Zimbabwe should with urgency embrace the greening economy initiative. Firstly, the Green Growth Concept is growth that does not waste natural resources nor destroy the environmental capital and does not cause excess pollution. The primary goal of the green growth is to achieve growth that is social and as well as environmentally sustainable so that all citizens enjoy sustained improvement in their quality of life. Several crises that indicate a misallocation of resources have unfolded during the last decade (post WSSD) Summit. These include climate change, biodiversity loss, fuel shortage, food shortage, poor access to quality water and lack financial resources to develop. The Green growth initiative is expected to address these issues within the local context, taking into account the global implications in terms of environment and trade in accordance with the principle of common but differentiated responsibilities.

The concept of green economy does not replace sustainable development, but enhances the balance between the three pillars of development (social, economic and environmental). Decades of creating wealth through the “brown economy” model based on fossil fuels have not

substantially addressed social marginalization, environmental degradation and resource depletion. In a green economy the fruits of the economic growth are shared fairly among all citizens and the burden of environmental degradation falls on all citizens. The green growth ensures that the environment remains more or less intact so that not only the current generation but all future generations can enjoy and use equally.

Secondly, while the world has witnessed periods of unprecedented economic growth, increasing disparities, inequalities and social inequity, growing deterioration of the environmental resources, a crisis within the economic system itself, as well as concurrent and interrelated energy, food, environmental, security and financial crisis, reflect the inadequacy of the current development paradigm. No development model which leaves millions of people hungry, unemployed and socially excluded can be sustainable. The green growth concept is expected to establish a model that addresses challenges faced by the poor and socially marginalised.

Thirdly, the livelihoods of the majority of Zimbabweans depend directly on natural resources. Thus most rural households are intricately linked with the exploitation of fragile environments and ecosystems including activities related to agriculture and mining. Most of the rural population lives on land prone to degradation and water stress and drylands that are vulnerable to climatic and ecological disruptions. The problems faced by rural communities in the area of water stress and energy shortages are likely to continue for the foreseeable future given the current poverty trends and climate change challenges. A pro poor orientation for economic growth must therefore be superimposed on the country's development strategy. The promotion of organic agriculture as part of the green growth strategy, sustainable mining, value addition on natural resources and the extensive use of renewable energy can open up opportunities for the marginalised population particularly the youth and women.

Fourthly, Zimbabwe's population is rapidly urbanizing, with current projections indicating that over 60% of the population will be living in urban areas within the next 30 years. This change is expected to increase challenges associated with urban pollution, congestion and provision of water and sanitation facilities. The increase in urban population will increase the demand for urban jobs and affordable food. The demand for affordable housing and transport facilities will also increase. A green growth strategy will seek ways of addressing the impending challenges associated with rapid urbanization through the promotion of appropriate transport systems, affordable energy provision including renewable sources and low cost housing.

While a green economy is unambiguously a necessary precondition for sustainable development, it is not sufficient. A transformation towards greener economies offers major opportunities for employment creation and social inclusion, but can also have downsides from labour perspectives. Greening alone will neither secure benefits, nor will it be sufficient to manage the potential downsides (ILO).

Evidence concerning the implications in a green economy can be positive. Net gains in job opportunities in the economy as a whole can make an appreciable contribution to addressing the challenge of creating enough jobs, provided coherent policies are in place. Job quality can improve in the transition to a greener economy. Such improvements are often necessary to

generate the economic and environmental benefits from investments in greener production and consumption, but require enabling policies and effective labour market institutions. Without targeted policies for a just transition to stabilise incomes, diversify the economy, and provide access to alternative opportunities and skills needed, the shift to a green economy risks being delayed or blocked by those who perceive that they stand to lose. Ensuring that equal weight is given to all the three pillars of sustainable development is therefore critical. Currently it appears the social pillar has been given less consideration in the design of the greening concept. Efforts should be made to strengthen the social pillar through social inclusion and greater attention to incomes and income distribution as a driver of balanced growth. In addition a better understanding of the transition and better guidance on the structural changes between sectors and within countries and their employment implications should be made.

To make the transition to a green economy, specific enabling conditions will be required. These enabling conditions consist of national regulations, policies, subsidies and incentives, as well as regional and international cooperation in the areas of technology transfer, investment financing, trade and capacity building.

Lastly, social protection needs to be recognized as an enabler of sustainable development, inclusive growth and as an economic stabilizer in the face of the growing economic and environmental shocks. Social protection shields people from destitution and poverty; it empowers them to seize market opportunities and contributes to the aggregate market demand.

Currently, the enabling conditions are heavily weighted towards, and encourage, the prevailing brown economy, which depends excessively on fossil fuels, resource depletion and environmental degradation.

A key organization that is advocating for the strengthening of the social pillar in the greening concept is the International Labour Organization (ILO). The ILO has anchored the vision of sustainable development as the overriding policy paradigm within the Organization, and its agenda of creating decent work for all should be considered in the development of the national sustainable agenda. Its key message concerning the greening economy in the framework of sustainable development and poverty reduction reads:

“A transition to a green economy is a necessary precondition for sustainable development in general and from a social and labour market perspective in particular. Greening economies offers major opportunities for employment creation and social inclusion, but it can also have downsides. To ensure that a green economy is rich in employment, socially inclusive and fair, complementary social and economic policies are needed along three lines:

- i. Social protection as a means of social inclusion cushions the negative effects of temporary and structural change in the move to a green economy; the extension of social protection and the creation of a social protection floor for all are essential in a transition to a green economy and for the adaptation to climate change as well as stabilizer in times of economic crisis

- ii. Entrepreneurship and sustainable enterprises development in green sectors with potential for job creation should be actively promoted, with a focus on youth and women
- iii. A just transition policy framework should be adopted for workers and enterprises facing restructuring. This framework complements access to social protection with economic diversification and active labour market policies to facilitate adjustments through (re-) training, skills upgrading for green jobs and enterprises, enabling technologies, employment placement and where necessary, targeted public employment schemes”.

SECTOR STATUS AND THE GREENING INITIATIVE

AGRICULTURE: IMPROVING PRODUCTIVITY, QUALITY AND PRODUCTION EFFICIENCY

Agriculture plays a pivotal role in Zimbabwe’s economy and has the potential to significantly reduce poverty, enhance economic growth and entrench economic stability. The sector provides employment and income for about 70% of the population, supplies 60% of the raw materials required by the industrial sector and contributes 40% of the total export earnings. Strong performance in the sector translates into overall improvement of the country’s GDP and poverty reduction. The sector is estimated to contribute between 15 and 18% of GDP (MTP, GOZ 2011).

Increased agricultural productivity benefits millions through higher incomes, increased household and national food security, increased export earnings and reduced import bills. Agriculture has a potential to generate employment on farm and off farm in the form of value addition, backward and forward linkages.

Production of major crops that contribute significantly to the national food security increased significantly during the 1980s and 90s. This trend has however been reversed with a major decline in yields of key crops like maize in the past decade. Maize yields were on average between 1-1.4 tonnes per hectare in the 1980s and 90s. In the last 10 years average yields from the small scale farmer have declined to 0.7 tonnes per hectare. Wheat yields declined significantly from the peak of 5.4 tonnes per hectare in 1990s to 2.32 tonnes per hectare in 2010. This is despite a rapid improvement in the seed quality and genetic potential. A number of local improved maize seed varieties have a potential yield of 18 tonnes per hectare.

The major challenge facing the agriculture sector is the high cost of agricultural inputs (chemical fertilizers, herbicides, pesticides, fuel and water). The extensive use of inorganic fertilizers among large and small scale farmers will continue to increase the production cost of agriculture without realising comparative increase in production. The high costs of purchased inputs, such as chemical fertilizers, pesticides and seeds require that at least a portion of the crops produced be sold to recover costs. Whilst on the other hand the traditional small holder farmer relies on traditional farming methods that is based on farming practices used for several generations, has limited or no use of off farm inputs, and results in low productivity, low value added per worker and primarily reliant on extracting soil nutrients with insufficient replenishment by either organic or inorganic fertilizers. The system is susceptible to yield losses due to erratic rainfall, pest and weed infestation and other production related risks.

The solution for the Zimbabwe farmers especially the small holder farmer is the adoption of a green growth strategy in agriculture. The greening of agriculture refers to increasing use of farming practices and technologies that simultaneously:

- Maintain and increase productivity and profitability while ensuring the provision of food and ecosystem services on a sustainable basis.
- Reducing ecological resources by reducing pollution and using resources more efficiently.
- Restoring soil erosion and improving fertility through increased use of naturally and sustainably produced nutrient inputs; diversified crop rotations, and livestock and crop integration.
- Reducing chemical pesticide and herbicide use by implementing integrated and other environmental friendly biological pest and weed control methods.
- Reducing food spoilage and loss by expanding the use of post harvest storage and processing facilities. The use of solar dryers is one way of reducing post harvest losses in horticultural products and fish preservation.

There are various examples of agricultural techniques that are being applied nationwide to support the greening agriculture concept; these include Organic Agriculture, Ecological Agriculture, Fair Trade and Conservation Agriculture. The reduction of chemical pesticide and herbicide use by implementing integrated and environmental friendly biological pest and weed management practices appear to have viable options for greening the agriculture sector.

There are however key challenges that need to be addressed in order to effectively benefit from the potential technologies and practices under the greening concept.

- Adopting a national policy on organic agriculture, supported by a strong extension, research and development program. The UN Food and Agricultural Organization (FAO) and the United Nations Industrial and Development Organisation (UNIDO) are expected to take leading technical role by working with key government and non-governmental governmental organizations, including farmers.
- The need to promote the recently adopted National Organic Standards under the Standards Association of Zimbabwe (SAZ). Creating awareness on the existence of these standards and the advantages of organic farming (ecology, health ...) should be a key priority. This should be supported by a national certification and labeling system, to ensure compliance, facilitate domestic marketing, including the creation of increased trade at regional and international level of certified organic products. The Zimbabwe Organic Producers and Promoters Association (ZOPPA), a non-governmental organization was instrumental in the development of the national organic standards. The organization is now advocating for the adoption of national

organic policy within the context of the International Federation of Organic Movements (IFOAM).

- The strengthening of the nitrogen fixation program that aims at reducing the extensive use of inorganic nitrogen fertilizers. Zimbabwe has one of the largest Rhizobium Nitrogen Manufacturing Plants in Africa located at the Grassland Research Station (Marondera) under the Department of Research and Specialist Services.
- The development of alternative environmentally friendly pest and disease management products. Current work in this area is being undertaken by the University of Zimbabwe in partnership with a number of NGOs. The involvement of the private sector in the development of environmentally friendly agricultural inputs to replace most of the inorganic products on the market will strengthen the organic movement in the country.
- The Persistent Organic Pollutants reduction program under implementation by the Ministry of Environment and Natural Resource Management and the Environment Management Agency (EMA) offers opportunities for a broader stakeholder engagement in the reduction of toxic products currently in use in the agriculture sector.

In a recent report on organic agriculture, the Asian Development Bank estimates that the cost of transition for farmers to move from conventional agricultural practices to organic practices including certification was approximately US \$77-170 per farmer for an average farm size of 1 hectare. Trading costs are estimated at \$6 – 14/farmer. This is quite modest compared to the costs of extricating farmers from poverty, an approximate investment of US\$ 554-880 according to World Bank estimates.

A transformation of the country's agricultural model is urgently needed as the current systems is modelled around intensive production based on high inputs (inorganic fertilisers and chemicals) with disappointing low yields. The new agricultural policy under consideration by the Zimbabwe Government is expected to shed more light on the new model of agriculture that increases efficiency and productivity, whilst lowering the production cost through the use of appropriate inputs and production technologies.

WATER SUPPLY AND QUALITY CHALLENGES

“ When people do not have access to water, either large amounts of their disposal income have to be spent on purchasing water from vendors or large amounts of time, in particular from women and children, have to be devoted to fetching it. This erodes the capacity of the poor to engage in other activities. When sanitation services are inadequate, the costs of water borne diseases are high (UNEP, 2011).

“One of the reasons why water demand management is rarely implemented is that we often fail to understand a water system in its entirety, and that we need to focus on certain aspects only,

which are not often the causes of the system's weakness, but merely symptoms of some fundamental weaknesses" IUCN/ WATER net (2003).

Zimbabwe is a semi arid country with low rainfall reliability. The average annual rainfall is 650 mm, ranging from 350 mm in Lowveld and 1000mm in the Eastern Highlands. The country is prone to periodic droughts and floods. In the last decade the country experienced devastating droughts in nearly four farming seasons, 2001/02, 2002/03, 2004/05, 2006/07 and 2011/12. The impact of these droughts affected a number of economic and social sectors of the country, including industry and agriculture. Lack of access to adequate water for domestic purposes affected the general water and sanitation situation especially in the urban areas. By 2025, Zimbabwe is projected to experience a critical water stress situation. Water consumption is expected to exceed the current water supply capacity of 1000 cubic meters per capita per year (SADC 2008).

The major competing water users in Zimbabwe are: the agriculture, industry, mining, urban and rural sectors. Agriculture uses an estimated 81% of the country's water resources, followed by industry 15%, mining 2%, and domestic 2%. Ground water contributes 10% of the water supply mainly for irrigation in rural areas and large scale commercial farms. There is however a rapid increase in underground water uses for domestic purposes in most urban areas, including Harare. This is a major concern as some of the boreholes which have been a major source of domestic household supply for decades are reported to be drying out.

In the past ten years, the country's water and sanitation services have deteriorated, partly as a result of the persistent droughts and the failure to maintain the water and sanitation infrastructure. The challenge of uncontrolled rural to urban migration has put pressure on the already strained infrastructure. The shortage of safe water supplies has impacted negatively on the operations of industry and sanitation (mainly in the major urban areas).

In some parts of the country (Bulawayo city) industry had to relocate as result of water shortage, whilst some industries that use significant amounts of water had to downsize operations. The outbreak of cholera in 2008 which claimed 4000 lives and affected over 100 000 people is evidence of the state of water and sanitation in the country. This is despite the country's relatively developed water governance infrastructure.

The Government of Zimbabwe embarked on water sector reforms in the mid 1998. These reforms resulted in the development of an integrated water resource management system in both the rural and urban areas, decentralised and democratised water management institutions and stakeholder participation. The institutional reforms were implemented through a new water Act of 1988 and the Zimbabwe National Water Authority Act, 1998. The Acts provided the legal framework for the establishment of the Zimbabwe National Water Authority (ZINWA), stakeholder driven water management institutions, and Catchment and sub catchment councils.

Since the introduction of water sector reforms the problems associated with water access and quality have not been resolved. In addition to the lack adequate water supplies to all the major sectors, water quality has continued to deteriorate in both the urban and rural areas. The main

threats to water quality are pollution from cities, industries including mining, lack of sanitation, soil erosion which results in the siltation of rivers. Most of the country's dams, lakes and rivers and groundwater sources are polluted, limiting the availability of safe water.

In the past years the Water Quality Section of the Environmental Management Agency has been monitoring water quality in all the water catchment areas. On the industrial effluents, food processing, chemical, pulp and paper industries were identified as the major polluters. The results of the monitoring have indicated that three water quality indices namely the Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and suspended solids were outside the permissible levels in areas of high industrial activity.

ZINWA also carried out a study to determine the impacts of mining operations in the catchment of Lake Kariba on the Zimbabwe side. The major minerals found in the catchment are chrome, iron, gold, platinum and copper. The impacts of these mining operations were evaluated by determining the concentrations of chromium, cadmium, copper, lead, manganese, nickel, zinc and selenium in water sediments as well as macrophytes and fish in the Lake Kariba. The concentrations of minerals were generally within permissible ranges, except for lead and cadmium which were relatively high in macrophytes and fish. (State of the Environment Report 2010). This poses a potential hazard as Lake Kariba is the largest fishery in Zimbabwe.

The State of Environment Report 2010 concludes that even though most industries treat their liquid waste before discharging into the river system, several large and medium sized industries do not have adequate treatment facilities, these include sugar mills, distillers, leather processing industries and thermal power stations.

A rapid assessment of urban water supplies in the country found that intermittent power supply is a major, but preventable cause of erratic water services, worsened water quality and cost escalation. On average, power is out for 8 hours per day in all water utilities (UNICEF 2011). Outages mostly occur at peak supply times, when water is most needed. The assessments found out that inexpensive modifications to existing power supply networks and amended policies by the power utility could significantly improve water services.

Equity Issues in Urban Water Use

Trends in domestic water use were studied in the city of Masvingo, Zimbabwe (Dube and Van der Zaag, 2002). The residential areas of Rhodene and Clipsham were considered affluent, comprising 1,050 households. The residential areas of Rujeko and Mucheke were considered non-affluent, represented by a sample size of 3,350 households. The findings indicate that there is a large difference in water consumption between affluent (consuming 60 cubic meters a month on average) and non affluent households (20 cubic meters/month). In the hot dry months, for instance, affluent households may consume as much as 80 cubic meters or more, whereas their non affluent counterparts consume at most 25 cubic meters a month. In the past 10 years most affluent households in urban areas now use boreholes as a source of water. No studies have been conducted as to how much water these households now consume.

What is of concern is that some of the boreholes are now running out of water, a clear problem of dewatering. If this problem is not addressed as a matter of urgency a more serious water crisis is on the cards for most urban areas, especially in Harare. This problem might be exacerbated by the changing rainfall patterns where droughts are now more frequent, lowering underground water table. The disturbance of wetlands in the urban areas as a result of urban agriculture and other human induced activities is likely to worsen water availability from underground sources. Not much attention has in the past been paid towards the sustainable management of underground water resources. Realising the impending crisis faced by the country in the drying out of underground water resources in some parts of the country, especially in the urban areas, the Ministry of Water Resources and Development and Management has instituted the following measures:

- With effect from 2 May to 30 June 2012 , all borehole owners should register with the Zimbabwe National Water Authority (ZINWA) or the nearest Water Catchment Council Offices
- All prospective borehole owners get a permit for the drilling of a borehole from ZINWA
- All borehole drilling companies to register with ZINWA and should not drill any borehole for anyone without a permit
- All water bottling companies to register with ZINWA.

The water sector poses serious challenges in meeting the objectives of the sustainable development agenda and therefore should be given a major focus under the greening concept. Areas that might be considered as part of broader strategic actions include the following:

- Production of a periodic State of Water Report, supported by all stakeholders including government, private sector, water users, local authorities and relevant UN agencies. Constant update on the water situation (quantity and quality) in the country, district and urban town council level ensures proper planning and management of water resources.
- Review of Water Governance Institutions with an aim of instituting water reforms (Water Management, Water Pricing, Demand and Supply etc). A controversial option is to increase private sector participation in water provision in the urban areas. The main reason for considering this option is that research is showing that private sector engagement in water management can help deliver benefits at least cost and in a more efficient manner.
- Education and Awareness on Water Demand, Supply and Management, Water Use Efficiency. Educating the public on the basic water demand management strategies and the effective use of scarce water resources is a key component of moving towards a sustained water management system.
- Technology Options on Water Supply, Treatment, Reuse, Recycling and Water Loss Control (along trunk mains, within the treatment plant, within the distribution system

and within the consumer premises). Various technologies are now available on the best method of conserving, reusing and relying water. Making these technologies accessible to water utility companies and authorities can significantly reduce the current demand for water, whilst improving the quality in most urban areas.

- Adopting ecosystems based water catchment management strategies, wetland conservation and underground water resources. The effective use of decentralised catchment and sub catchment councils and the use of environmental impact assessments. In a number of countries i.e. in the Latin America and Caribbean regions (UNEP), water utility and electric power company pays local people to conserve the watersheds from which the power company draws its water.
- Pollution Control at Source and Use of the Polluter Pays Principle. A number of companies and local authorities continue to discharge untreated industrial effluent and sewage waste in rivers and lakes that are a source of domestic water supply. Current penalties need to be reviewed upwards to deter offenders on the basis of the polluter pays principle.

The agricultural sector is the major consumer of water accounting for over 80% of the water use. It is therefore important that the greening concept targets this sector as a matter of priority. The use of efficient irrigation technology like the drip system is strongly recommended. Irrigation during daytime hours is generally less efficient. The sunlight and increased winds during the restricted day time hours cause some of the water to evaporate before hitting the ground to blow on impervious surface such as sidewalks and roads (IUCN/ Waternet, 2002). The wind also causes the water that reaches the plants to be more unevenly applied. Public education programmes can contribute in informing irrigators how they can reduce applications while still meeting the water requirements of their plants.

Whilst in urban areas control of pollution at source, infrastructural maintenance, environmentally friendly water treatment technologies, district metering, retrofitting toilet flush systems, water pricing and control of water loss should be key priorities.

District metering of separately defined areas, containing 1000 or so properties have been effective as a monitoring mechanism in some countries. The method entails a continuous monitoring of water entering the district (suburb). The meters are read regularly and if supply is inexplicably high, inspectors are sent into the district to locate leaks.

Whilst at home there are various physical methods to reduce water demand. These measures include: the use of Ultra-Low-Volume fixtures (installation of low volume plumbing fixtures in new construction and modifications of existing ones i.e. the use of low flush toilets), periscope landscaping and wise garden irrigation.

Sharing of international best practices and pilot projects in water supply, demand management, treatment and pricing could be an area where organizations like the UN agencies and other development partners could assist. The UN Water Group and UN Habitat could provide the country with international best practices and technical assistance. The country has not benefited

from the highly publicized UN WEHAB (Water, Energy, Health, Agriculture and Biodiversity) initiative launched at the WSSD in Johannesburg (See Annex). UN Habitat could also play a key role in supporting long term water and sanitation programs in the country. The need to upgrade the status of the current office of UN Habitat from a desk office to a fully fledged country office might be one way of supporting water and sanitation programming in the country. Currently the UN Habitat office is manned by one professional person and an Administrative Secretary.

ENERGY PROVISION AS KEY COMPONENT OF SUSTAINABLE DEVELOPMENT

“A shift to renewable energy sources brings in new employment opportunities, but not without transitional challenges. Due to the higher labour intensity of various renewable energy technologies compared with conventional power generation, increased investment in renewable energy will add to employment, especially in the short term. Overall impacts on employment of investing in renewable energy, taking into account possible effects in fossil fuel related sectors, will vary by national context, depending on supportive policies, available resources and national energy systems.” (UNEP).

The availability of adequate, reliable and clean energy is critical for the attainment of economic recovery, growth and transformation of the country. The current energy supply balance is dominated by electricity and liquid fuel, whilst wood fuel is the main source of energy for the rural population and urban poor. Persistent power outages over the past years have contributed to continued economic decline.

The energy sector accounts for about 15% of GDP, but contributes to only 1% of employment. The sector however has a more significant share of aggregate investment, foreign borrowing and debt. The country’s primary energy balance consists of coal, thermal, hydropower, biomass and solar. The commission of one of the largest bio-ethanol plant in Africa in the eastern part of the country is expected to change the energy supply mix on liquid fuels.

The existence of wide deposits of coal bed methane in the south western part of the country and recently in the eastern parts of the country creates opportunities for the commercialization and mining of coal bed methane.

Biomass accounts for 50% of the energy used, while coal and electricity account for 13% and 12% respectively. Fuel wood is the most important domestic fuel in the country. It is a major source of energy for cooking, lighting and heating for over 80% of the population mainly in the rural and peri-urban areas. This resource is however under threat due to deforestation and desertification. Most regions of the country can no longer support the communities’ energy requirements through wood fuel. Alternative fuels have to be identified and developed. This is more urgent for the majority under resourced rural and peri-urban populations.

Coal is the most abundant source of primary energy found in Zimbabwe apart from fuel wood. Zimbabwe is estimated to have 26 billion tonnes of probable bituminous coal reserves in 21 deposits of which in situ reserves are estimated at between 20 -30 billion tonnes. Proven reserves can last 8000 years at the present exploitation rate of 3- 5 million tonnes per annum (UNEP Southern Center 2002 and Energy Conference 2011).

Electricity is generated locally at the following locations at Hwange Thermal Power Station (920 MW), Kariba Hydro Electrical Power Station (666MW), and three thermal power stations Harare (135MW), Bulawayo (120 MW), and Munyati (120MW). Zimbabwe's total installed capacity amounts to 1960 MW and national demand is approximately 2 200MW. The current electricity generation is approximately 63% of the installed capacity (MTP 2011). The country electricity generation capacity has remained almost constant in the past 10 years.

Animal power is another useful form of energy that remains uncounted for the country's energy balance. Estimates are that national animal power use in the agricultural sector is about 6, 8 million liters of diesel annually (Southern Center 2002).

It is estimated that the country currently suffers a suppressed demand of 600MW caused by business that closed or scaled down operations in the past 10 years due to the current economic downturn. As the country's economy improves the demand is likely to increase. The country has new investment projects in different sectors of the economy that are at various stages of completion with a total future demand of 600 MW. It is thus expected that the long term electricity demand will increase by 4% annually. Additional generation capacity is therefore a top priority. The following investments are expected to address this shortfall in the medium term.

Table 2: Energy Investments Projects

Project	Estimated Capacity	Cost	Estimate Period to Completion
1. Expansion of the Hwange Power Station	2X 300MW Coal fired Units	\$900 million	48 months
2. Expansion of the Kariba Power Station	2x 150 MW Hydropower	\$400 million	48 months
3. Gokwe North Power Station	4x 350 MW		
4. Batoka Gorge Power Station	1000MW Hydropower Shared between Zambia and Zimbabwe	\$2,8 billion	7 years

Source: ZESA 2011

Despite these proposed investments on power generation, the Government of Zimbabwe soon after independence in 1980 adopted a policy of supporting renewable energies as part of the country's strategy on energy supply.

ZIMBABWE'S RENEWABLE ENERGY, PAST, PRESENT AND FUTURE

Zimbabwe has a long history with renewable energy, dating as far back as the mid 70's, when the country commercialised ethanol fuel blending (10 – 20%). The country was the second in the world after Brazil to commercialize the biofuel for its transportation. Faced with economic sanctions during the “Rhodesia era” the country sought to reduce its import bill by adopting ethanol blending as part of its import substitution strategy. There was a mandatory blending of all petrol in the country. All petrol cars in the country ran on ethanol blend up until the late 90's. The blending program only stopped due to drought in the sugar producing region (the lowveld) and the crash of international oil prices.

In the early 80's studies by the Beijer Institute had indicated that the country would run out of wood stocks by the 1990s. The findings drove government to implement several projects in support of renewable energy. These projects ranged from renewable energy policy support, technology transfer, research and development to field demonstration and awareness.

Renewable Energy Projects Supported in the past 20 years

The following are some of the renewable energy projects implemented in the post Rio Summit era.

Table 3: Renewable Energy Projects Supported in the past 20 years

Project	Aims	Impact
UNDP GEF PV	Address key barriers to the adoption of PV Power at the national level	Wider dissemination of PV Technology in remote areas and adoption
GTZ PV Pumping	Provide sources of Clean Energy through PV pumping	Wider dissemination of PV technology to remote areas of the country
UNIDO Gasification	Use of agricultural waste for gas provision in rural areas	Technology complex for rural setting, need some modification and simplification
JICA PV Markets	Assess the potential of PV markets and the ability of end user to pay	Good markets but inconclusive ability for users to pay
UNIDO/DUTCH Finnese	Identify opportunities for business ventures using	Good potential but need

Project	renewable energy	project redesign
Wind Turbine Dutch funded	Designing a wind turbine for low wind speeds	Manufactured a prototype and transferred skills to the country
Solar Water Heating	Install water heaters in rural institutions and urban households	Project collapsed to due weak macroeconomic environment
Minihydro	Asses potential of minihydro in the Eastern region of the country	Good potential and a number of schemes already operational
Jatropha Plant Oil Use	Demonstrate wide use of jatropha plant	Identified numerous products for value addition using jatropha oil
Solar Cookers	Test acceptability of solar cookers in peri-urban areas	High acceptability of the technology , but failing to meet the energy needs of beneficiaries
Solar dryers	Develop locally manufactured solar dryers for drying fruits and vegetables in irrigation schemes	Good results achieved, technology requires further marketing and awareness by potential target groups.

From the table, one can conclude that Zimbabwe has a long history and empirical knowledge of the application of renewable energy technologies. The economic challenges faced by the country in the past two decades might have impacted negatively on the wider adoption of these technologies. There is therefore an urgent need to consider lessons learnt from the past and refocus efforts on how best to re-launch some of the initiatives as part of the greening concept. The first step in this direction might focus on gathering information on the projects implemented, challenges faced and opportunities. The gathered information would form a good basis for designing a comprehensive renewable country strategy.

Despite the challenges that the country has faced in rolling out its renewable energy program in the past, there are a number of national projects that are ongoing or at advanced stage planning that fit well within the context of the greening the economy and sustainable development national agenda.

Renewable Energy Projects under Consideration in the Greening Initiative

Developing of new renewable and other cleaner energy systems is a priority objective of the country and fits well within the Greening Initiative proposed under the Rio plus 20 Summit. The following projects will be given a high consideration in the design and implementation of the country's sustainable development agenda;

- Coal- Clean Technologies (Coal Beneficiation)
- Fuel -Switch Coal /diesel based plants to natural gas
- Solar, Wind and Biomass
- Waste to Energy
- Energy Efficiency
- Bio fuels

The range of regulatory policies, fiscal incentives and public financing mechanisms to support renewable energy is broad and can be complemented with the support to R&D as well as other measures, such as those to stimulate investments in adapting grid infrastructure.

There are five key alternative renewable energies that could be deployed in the country within a limited timeframe and the resource capacity of the country: solar, mini-hydro, wind, biogas and biofuels.

Solar Energy:

The potential for renewable energy, especially for solar PV and solar water heaters, is enormous, but has not been sufficiently exploited. Solar PV has a technical potential of over 300 MW and only 1% of the technical potential for water heaters is being exploited. Solar PV market still remains open especially in the short and long term. The country has a solar irradiation averaging 20MJ per square meter. Solar energy can be targeted towards: water pumping, powering lights and appliances (rural schools and clinics) and water heating in urban areas. The demand for solar energy in rural areas is very high, even though the cost is considered prohibitive.

Mini-Hydro

The county has an estimated 120MW potential mini-hydro on the following sites:

Table 4: Potential mini-hydro sites

District	Site	Capacity (MW)	Annual Energy (Production GHz)
Mwenezi	Manyuchi	1.4	5.5
Masvingo	Mutirikwi	5	40
Mutasa	Osborne	3	23.6
Bikita	Siya	0.9	5.6
Mutasa	Duru	2.3	6.0
Nyanga	Gairezi	30	70
Nyanga	Tsanga	3.3	8.8

The following mini hydro- schemes are already in place:

- Claremont (250KW)
- Aberfolye (25KW)
- Nyafaru (30KW)
- Rusitu (700KW)
- Mutsikura (3KW)
- Svinurai (10KW)
- Sithole (25KW)
- Kuenda (75KW)

Biofuels and Ethanol

The country has a target to substitute 10% of the nation's fuel requirements with bio-fuels by 2015. A bio diesel processing plant with a capacity of producing 35 million litres per annum is already in place. Growing of Jatropha on an area of 122,000 hectares as feed stock to the plant is planned.

500 million liters per annum ethanol plant is already in production in the Eastern part of the country. The plant uses sugar cane as its feedstock. Production is however constrained by lack of a clear national bio-fuels policy and legislation. There is also lack of consensus on the promotion of biofuels within the context of food security.

Biofuels and Food Security

Biofuels hold a special place in the renewable energy and the green growth strategy in Zimbabwe. As one of the few alternative fossil fuels in the transport sector, biofuels are seen as important for energy security and a resource for the diversification of energy sources. Biofuels are also considered to contribute to agriculture and rural development, with employment opportunities in associated sectors i.e. agriculture, industry, infrastructure and research. Biofuels are also perceived as a way to contribute to the mitigation of climate change by reducing gas emissions of transportation, bringing less atmospheric pollutants locally. They are perceived as a means to increase the efficiency of food systems by increasing productivity, for example through the use agricultural residues and waste, while bringing additional revenues to farmers in case of better market access.(Committee on World Food Security, FAO 2012).

Biofuel policies, in the USA, in Brazil and elsewhere are often benefiting from substantial public support, be it in terms of tariffs, of blending mandates with gasoline or diesel, or of public subsidies. Current trends in growth of the global market for biofuels (a 400% increase from 2000 to 2008) have however triggered a development of controversies at different levels and across many stakeholders (from groups of states to individuals business entities and consumers), with the economic, environmental and social effects being widely debated.

In Zimbabwe concerns have been raised on the role of government in the development of biofuels and on the impacts of biofuels on food security. Secondly, there is a strong suspicion that the development of biofuels has triggered large scale investments at the expense of food production, in some instances associated with land disposition of poor small farmers by large companies. Another area of concern is that the demand for fuel which is growing faster than agricultural commodities will trigger an increase of interest to devote land to biofuels in the long term, with potential risk on the food prices.

Despite all these challenges there is consensus among various stakeholders in the country that the biofuels debate should be looked at in a more comprehensive manner using empirical evidence and in the national interest. The main question is what national policy the government should consider on biofuels.

The National Ethanol Project

Zimbabwe is the second country in the world after Brazil to commercialise ethanol production for use in its transport sector. In 1973, due to increased world prices of fossil fuel and the impact of sanctions imposed on the country during the “Rhodesia” era, there was a critical shortage of fossil fuel, the political establishment at that time decided to commercialise the production of ethanol for blending with petrol at the rate of 10-25%. This meant all petrol cars were running with an ethanol blend of up to 25% without any technical constraint, although this ethanol was

hydrous i.e. contained 4% water. The program was halted due to drought in the sugar producing areas of the country and the crash of international oil prices.

The persistent energy shortages experienced in the past decade and the increase in the world price of fuel has once again called for a review of the biofuels production to support the energy sector. The country's oil imports continue to raise as the number of vehicles is increasing at a rate of more than 10% per annum. Current estimates indicate a figure of over a million vehicles (private and commercial) in the country. The value of fuel imports in 2010 was estimated to be \$0.83 billion and expected to hit the 1 billion mark by the end of 2012. This is almost 10% of the country's GDP. The reintroduction of biofuels can be drastically reduced with the introduction of biofuels.

The Chisumbanje Ethanol Project:

Rating & Macdom, two cane growing estates entered negotiations with the Agricultural Rural Development Authority (ARDA), a large government rural development agency that owns vast pieces of land in the lowveld (land leased from the Chipinge Rural District Council by ARDA). The companies started negotiating with ARDA in 2008, for possible Joint Venture in the production of sugar cane for use in a national biofuels project. In 2009, an agreement was signed between ARDA and the companies for use of the 50 000 hectares of land for a period of 20 years. The land was to be developed in phases, with the first phase taking up 8 000 hectares and producing over 120 million liters of fuel per annum and employing over 4500 people. An additional 800 households were to benefit through the introduction of irrigated plots. The area is known for low rainfall and periodic droughts, the introduction of irrigated farming amongst the small scale farmers would improve household food security and income.

The plant started production in September 2011 and has to date produced 10 million litres of anhydrous ethanol (without water). The following benefits are said to have been secured from the project since it started operations.

- The Chipinge District where the project is located is rated as one of the worst developed districts in the country because of its semi desert conditions. No crops can be successfully produced in this district without irrigation support. Agronomic studies carried out in the past decade indicated that only cotton and sugar cane produce economic yields. Water for irrigation is through sand abstraction from the Save River, a method that requires heavy capital outlay and high running costs. Income from dryland farming is extremely low, resulting in a serious outmigration of young people to South Africa in search of jobs. The launch of the project has transformed the area in less than a year through the bringing into productive use 5000 ha of land, creation of 4 500 jobs, 700 farmers have been allocated 1 ha plots for irrigation purposes (farmers can now produce 3 crops per annum). Seven commercial banks have opened in the past year bringing the much needed banking facilities in remote parts of the country. There is a visible growth of residential and industrial properties with over a 1000 three to four bedroom houses under construction by those employed by the company. Water and sanitation situation is expected to dramatically change with most households having

access to piped water. Education and health services are expected to improve through the various corporate social responsibility programs currently under implementation.

- At the national level, the project is expected to produce 120 million liters of ethanol in the first year and generate 18 MW of power, organic fertilizers and carbon dioxide (meeting the current national demand) and various other service related industries like increased transport demand. By 2017, the project is projected to bring into effective use of over 50 000 ha of land, produce 488 000 000 liters of ethanol, which is 81% of the country's needs, with a foreign currency saving of \$US 300 million per year, export earnings of \$US 188 million per year, a total of \$US 1, 4 billion in investment, 39 000 new jobs and a estimated 5000 ha of irrigated land for the local population (benefiting over 122 000 families).

Despite these benefits the project is facing challenges due to lack of a clear national biofuels' policy. (See Annex on the Brazilian Experience)

Key areas that need urgent attention include the following:

- National mandatory blending policy as articulated by other countries in the world. National mandatory reduces the burden of multi storage space as fuel can be stored in one single tank without the need of separation, except of course the need to separate the diesel from petrol.
- Capacity building of the Zimbabwe Energy Regulatory Authority (ZERA). The position of the ZERA as regards biofuels is not clear, sending negative signals to potential investors. There is need to capacitate ZERA to ensure it performs its mandate based on the country's energy needs and priorities. The finalization of the country's renewable energy policy is a key priority in greening the energy sector.
- Limited public awareness of the benefits and risks associated with the use of biofuels. Currently the public, policy makers, potential investors and other key stakeholders are not clear on the future direction that the country wants to pursue in the area of biofuels as a renewable energy.
- There is a lack of research on the potential of biofuel production in the country and related economic, social and environmental impacts. The implications on food security, food pricing and access to land have not been articulated. Current literature on the subject appears inconclusive, although there are various international networks that been established to study the risks and benefits of the commercialization of biofuels.
- The demand for biofuels is likely to increase as most countries will be adopting green growth strategies that call for reduced use of fossil fuels. Zimbabwe should be able to strategically place itself on the future growth of the sector based on its experience dating back to the early 70s.

The Mining Sector

The mining sector has the capacity and potential to create substantial impetus for economic growth and value addition. The sector has forward and backward linkages with many sectors of the economy-manufacturing, small and medium industries, construction and infrastructure, amongst others.

Mining currently accounts for nearly 50% of total exports and is a major source of Foreign Direct Investment. The industry creates jobs directly and indirectly, provides transfer of technology and knowledge and contributes significantly to economic activity. There are over 40 minerals mined throughout the country. Gold, nickel, chrome, platinum, coal and diamond are the major minerals mined.

Whilst the country is well endowed with vast deposits of minerals, concerns have been raised about the negative environmental impacts that are likely to arise from extensive exploitation. These concerns are clearly articulated in the country's National Environmental Policy document. The policy document identifies the key environmental impacts associated with mining. These include, the rapid depletion of non renewable resources, noise and dust pollution, air pollution from smelting plants, changes to and contamination of both surface groundwater by chemical and heavy metals leaches from mine dumps, soil erosion, transformation of the land cover and topography on and around mining sites, including the complete removal of the surface soil at opencast mines. The policy document identifies a number of health and safety issues associated with mining. These include ground collapses, lung diseases (pneumoconiosis) caused mainly by dust, epidemics associated with population movements and lack of appropriate water and sanitation facilities, high incidences of sexually transmitted diseases.

High levels of unemployment and economic hardships have led to an upsurge of illegal gold panning and diamond extraction. Figures from the Environmental Management Agency indicate that there are over 1 million people engaged in unregistered gold panning. In addition a significant population is now licensed to undertake small scale mining. Most of the small scale miners and illegal gold panners lack both the organizational capacity, capital equipment and know how to manage challenges associated with small scale mining. Inadequate regulatory and enforcement procedures in the small scale artisan mining sector have led to serious environmental degradation as toxic chemicals are sometimes used in the extraction of minerals such as gold. The use of mercury has been recorded throughout the country.

The Ministry of Mines and Mining Development is currently developing a National Mining Policy that will include issues of environmental management. Within the context of green growth efforts will be made to develop a strategy that would address the negative impacts of both the large and small scale mining. A number of international instruments are already in place to assist in the development of a sustainable framework in mining. These include amongst others, the International Council of Mines and Metals Sustainable Development Framework, Global Environmental Reporting Framework, Global Compact and the Extractive Industry Transparency Initiative (EITI).

Creating national partnership between the mining companies, government, community representatives and key UN agencies (UNIDO, ILO, UNDP and UNEP) in the development of a comprehensive green strategy on mining would be the most effective way of addressing the challenges in the mining sector. Partnerships between the country's Chamber of Mines, Small Scale Miners, and local authorities, communities living in and around mining areas, civil society groups and research institutions are desirable.

UNIDO's pilot work on the use of mercury in small scale mining is a classical example of how partnerships can be effectively used in addressing national challenges. The value addition of the country's minerals, using environmentally friendly technologies will be highly prioritized. The use of platinum as a greenhouse emission reduction material in the production of motor vehicle accessories like catalytic convertors should be considered.

INDUSTRY

The decade has witnessed the engine for economic growth and development that is anchored in Zimbabwe's manufacturing sector declining in its contribution to GDP from averages of 20% in 2000 to below 10% by 2008. The main causes of this decline were articulated earlier on in this report. The decline was further compounded by the global financial meltdown of 2008 which wreaked havoc internationally in general but more proudly in developing countries.

Zimbabwe has recently launched two key important policies, industrial development and trade policies 2012 -2016. The overall objective of the industrial development policy (IDP), is to restore the manufacturing sector's contribution to GDP from the current 15% to 30% and its contribution to exports from 26% to 50% by 2015 consistent with the MTP. Five key strategic objectives are outlined in the IDP document:

- Creation of additional employment on an incremental basis by 2016
- Increase industrial capacity utilization from the current levels of around 57% to 80% by 2016
- Reequip and replace obsolete machinery and new technologies for import substitution and enhanced value addition.
- Increase manufactured exports to the SADC, COMESA and the rest of the world
- Promote the utilization of available local raw materials in the production of goods.

The success of the implementation of the IDP and trade policies will depend on a number of assumptions which are outlined in the implementation matrix. Some of the key assumptions are:

- The creation and strengthening national capacity for innovation, and effective application of science and technology in the industry
- Building the human resource for industrial transformation and employment
- Promotion of occupational safety in industrial development

- Promotion of environmentally sustainable industrialization and
- Promotion of gender balance and gender sensitive industrial transformation

A critical imperative for the recovery of the manufacturing sector is the refurbishment, modernization and upgrading of plant, machinery and equipment, as well as the development and retention of necessary skills to replace those lost through brain drain. It is clear that the current challenges facing the industrial sector would require a green growth strategy that would ensure introduction of technologies and equipment that are technologically sound to compete at the international level and at the same time are highly efficient, environmentally friendly and poses fewer occupational hazards. The effective participation of the private sector, research and development institutions is therefore key in the attainment of sustainable development within the industrial sector.

The effective cooperation and technical assistance from various UN agencies including UNIDO, ILO , UNDP, UNEP, UNCTAD, FAO, the Commission on Sustainable Development and other development agencies is highly recommended. The strengthening of the current Cleaner Production Center which is located within the Scientific Industrial Research and Development Center (SIRDC) and effective link with tertiary and institutions of higher learning should form part of the national strategy of greening the industry. Establishment of specialised cleaner production centers throughout the country should be encouraged. These centers could be located at strategic institutions like Universities, agricultural colleges, vocational training centers and other institutions of higher learning.

Waste

Waste management is one of the most pressing emerging issues confronting the urban local authorities throughout Zimbabwe. This is due to a high rate of urbanization the country has been experiencing in the last two four decades. (EMA 2010). It is estimated that 40% of the population now live in urban areas, compared to only 18% in 1969, 22% in 1982, 32% in 1992.

As a result there has been an increase in the amount of waste generation throughout Zimbabwe without a corresponding expansion and requisite collection and disposal services. This is further compounded by the lack of financial and human capacity of local authorities that ensure proper management and disposal of waste. There has been a mushrooming of illegal waste dumps in most open spaces within the urban and peri-urban areas. Recent studies have indicated that even legal waste disposal sites are poorly managed, with both biodegradable and non biodegradable waste dumped together at the dump site.

The indiscriminate dumping of solid waste, littering and poor management of waste now poses serious environmental and health hazards to the urban and peri-urban populations throughout the country. Liquid waste in the form of industrial sewage effluent and inadequate sanitation are the major sources of urban water pollution. The existing waste water treatment equipment in most urban areas is antiquated and breaks down more frequently, resulting in the disposal of partially treated waste.

The management of hazardous waste and Persistent Organic Pollutants (POPs) are a challenge to the country's environmental management institutions. The Environmental Management Act {Chapter 20:27} (Hazardous Waste Management Regulations, 2007), are the legal instrument to manage hazardous in the country. Through these regulations every generator of hazardous waste is required to prepare a waste management plan which includes an inventory of the waste generated and how it is managed including the adoption of cleaner production methods, recycling, safe transportation and disposal.

The POPs are chemical substances that poses toxic properties, resist degradation, bio-accumulate and transported, through air, water and migratory species, across international boundaries and deposited far from the place, where they accumulate in terrestrial and aquatic ecosystems (State of the Environment Report 2010). Exposure to POPs is associated with a wide range of impacts on health of both humans and animals. Effects include carcinogenicity, toxicity to the reproductive system, nervous and immune systems as well as adverse effects on development. POPs can be transmitted from mother to child through breast feeding (GOZ 2008).

The main sources of POPs in Zimbabwe are agricultural pesticides, vector control of malaria, industry and mining, including open burning of waste. Dichlorodiphenyltrichloroethane (DDT) is one the few POPs still under use in Zimbabwe. DDT is known to have a negative impact on fish, amphibians and birds. It can also affect the human nervous system. The Stockholm Convention of which Zimbabwe is signatory calls for the research on alternative methods and new chemicals to replace POPs. This creates opportunities for employment creation and an avenue for research and development within the context of the green growth. The use local material in developing new organic products that are environmentally friendly is enormous. The promotion of organic farming as a method of reducing the use of POPs is also a viable platform.

Through the green growth strategy Zimbabwe has an opportunity to launch a nationwide campaign on integrated waste management. This campaign should be part of the nation's transition to a green growth strategy. The community working in partnership with the private sector, municipalities and government institutions should effectively engage in designing a long term strategy on waste management.

The role of UN agencies that include UN – Habitat, and UNEP can play a key facultative role in supporting the country's waste management strategy.

CROSS CUTTING ISSUES:

GENDER, EQUITY AND POVERTY REDUCTION

In drawing the sustainable development agenda for the country it is important to recognise the critical element of mainstreaming gender, equity and equality issues in the country's sustainable development strategy. Various plans and country's strategies have clearly articulated gender and equity issues, namely the Medium Term Plan, the 2010 MDG Status Report, CEDAW and CRS state Party Reports all affirm the country's commitment to regional and international agreements for gender equality and empowerment of girls and women. The following challenges have been identified in the various strategies and plans and will be pursued in the design and implementation of the post Rio plus 20 Summit action plan:

- Limited Coordination of the National Gender Policy and Management System. Attempts will be made to understand the national gender policy within the context of sustainable development and the green growth strategy. Establishment of gender focal points within the key sectors outlined in the greening strategy to ensure that the transition to a green economy does not undermine the country's gender and economic empowerment policies. Opportunities will be created to ensure women; girls and boys gain from the green growth strategy.
- The domestication of regional and international instruments on gender will ensure that women and girls are empowered through the proposed reforms of the UN system. The establishment of the UN Women should present opportunities to further enhance women's empowerment in all the three pillars of sustainable development. The national development priority of Gender Empowerment as articulated in the ZUNDAF Framework 2012 -2015 should be prioritised within national sustainable development agenda.
- Increased cases of Gender Based Violence are a serious impediment to the attainment of social and economic rights of women. Strategies will be developed to eradicate gender based violence through various economic and social measures. Attempts will make to identify technologies that reduce the work load of women at both home and at work. More specifically the introduction of alternative sources of energy for the rural women and the easy access to water for domestic use would be a key priority.
- Women headed households carry a heavy burden in looking after the family. Efforts will be made to involve them in employment benefits that will result from a green growth strategy.

FRAMEWORK STRATEGY FOR SUSTAINABLE DEVELOPMENT

The framework action plan on sustainable development will be articulated and formulated in a participatory manner with the active participation of all the major groups as identified in the Agenda 21 blue print. Currently capacity to articulate issues of sustainable development and the green growth strategy is still limited to a few representatives of the major groups. It is therefore important that a national awareness raising campaign is launched to educate the general public on the key objectives and strategies of national sustainable agenda and the concept of green growth. Based on the outcome document at the Rio plus 20 Summit and the content of this National Report “The Future We Want” a detailed consultative action plan on the national document on “The Future We Want” will be elaborated. The process will be led by the current national focal point on sustainable development , The Ministry of Environment and Natural Resource Management and inter Ministerial Committee on Sustainable Development , which is expected to transformed into the National Sustainable Development Council with participation of representatives all the major groups.

The following major groups will be represented: The Private Sector (Business Council for Sustainable Development), NGOs (NANGO and specialised NGOs), Local Authorities (ZILGA, ARDA and UCAZ), Scientific Community (to be selected by representatives of the sector), Farmers (Registered National Farmers’ Organizations), Labour (Trade Union representatives), Local Community Representatives (From Remote Marginal Rural Set Ups) , Youth (Youth representatives), Women (Women Representatives) and Faith Based Organizations.

In addition the UN Country team is expected to take a technical and capacity building role together with other development agencies. The consultation process is expected to lead towards the development of a permanent multi stakeholder institutional framework for sustainable development. In line with the recommendations from the Commission on Sustainable Development and the proposed national reform process a National Sustainable Development Council is expected to emerge from the national consultations.

EXISTING PROGRAMMES, STRATEGIES AND POLICIES

The development of the national institutional framework for sustainable development is expected to be within the context of existing programs, strategies and policies. The key programs and strategies to guide the process include various policies that have been adopted by government, at the national, regional and international level. Key programs and strategies include, the MDGs, the MTP, ZUNDAF, MEAs various other programs and strategies that have a bearing on issues of sustainable development.

ENGAGING MAJOR GROUPS

The engagement of major groups in the development of the sustainable development strategy post Rio plus 20 will be a key strategic approach.

GLOBAL PARTNERSHIPS

Where possible the establishment of global partnership in addressing sustainable development issues is highly recommended. Participation in platform like the Global Compact creates opportunities for sharing best practices and leveraging on available human and technical resources at the international level.

PHASED APPROACH STRATEGY

CLEAN UP CAMPAIGN

A national cleanup program to run for a period of three years will be launched. The campaign will create public awareness on the sustainable development strategy and the greening concept. The campaign will involve clean up cities, informal settlements, refurbishment and repair of infrastructure (roads, water systems and sanitation). The establishment of cleaner centers in major towns and cities will be prioritized.

EDUCATION FOR SUSTAINABLE DEVELOPMENT

A broad based education for sustainable development program covering issues of sustainable development and the greening concept will be developed and mainstreamed through various platforms. The setting up of Regional Centers of Expertise on Education for Sustainable Development will form part of the creation of institutions to support education for sustainable development.

ACCELERATED IMPLEMENTATION OF THE MDG GOALS

An accelerated implementation of the MDGs will be launched within the remaining three years, whilst work on developing National Sustainable Development Goals will be in process.

RESOURCE MOBILIZATION AND DEBT RESTRUCTURING

Financing the sustainable development agenda post the Rio+20 Summit and the greening economy initiative will be a challenge, recognizing that the country is in arrears with various international funding institutions including the World Bank, IMF, AfDB and the Paris Club. Innovative resource mobilization strategies will focus on the domestic market, non traditional sources (BRICS countries) and other emerging economies like South Korea, Indonesia, Iran and Malaysia.

There are opportunities for resource mobilization through the use of various investment vehicles like the Build Operate and Transfer, Public-Private Partnerships, Public-Private-Community Partnerships and Sovereign Wealth Funds.

The non resolution of the debt issue has become a major impediment to Zimbabwe's rapid economic recovery. As at end of December 2010, Zimbabwe's invalidated external debt position is estimated at US\$6, 9 billion (about 103% of GDP), (Ministry of Finance GOZ, March 2012). Its resolution will unlock fresh financing for the sustainable development agenda and the greening initiative.

The Zimbabwe Accelerated Arrears Clearance Debt and Development Strategy (ZAADDs), is a hybrid debt resolution strategy adopted by the inclusive government. The strategy recognizes the country's unique situation and the need to focus on an internally driven debt resolution process. It combines debt relief under traditional relief debt resolution, the injection of fresh financing

from development partners and leveraging of the country's natural resources. More specifically the implementation of the strategy will be premised on five main strategic actions:

- Strengthening debt management, through the establishment and operationalisation of Debt Management Office in the Ministry of Finance
- External debt data-base validation and reconciliation with all creditors.
- Negotiating a comprehensive arrears clearance and debt relief programme, including critical new financing with international creditors.
- Re-engagement with the international community on the normalization of relations and the removal of sanctions. This will facilitate access to finance through agreements such as the Economic Partnership Agreement with the EU under the development matrix. The African Development Bank is currently developing a facility to support member countries on the green growth strategy.
- Leveraging of Zimbabwe's natural resources within the broader context of sustainable development and greening economy initiative. Zimbabwe has a broad based natural resource asset, including precious minerals that can be used as collateral to support its debt restructuring and new financing windows.

KEY INSTITUTIONAL FRAMEWORK REFORM ISSUES

The implementation of the post Rio plus 20 Summit resolutions and the sustainable development agenda under the theme "The Future We Want" will depend amongst other issues, on the level of preparedness of supporting institutions at the international, regional, national and local levels. Zimbabwe's position on the need for institutional reforms to support the sustainable development road map at the international and national level has been articulated though not fully finalised. The country will make its inputs at the June Summit on proposed institutional reforms under the Africa Group and the G77 and China.

This section provides the country's position on key institutional framework reform issues. Whilst the country supports the main objectives and themes for the Rio plus 20 June 2012 Summit, we however note the following:

1. That any proposed institutional reform within the context of sustainable development should first and foremost serve and address the urgent development needs of the developing countries. The current global economic order requires major reforms that are supportive to the development needs of the developing countries. Major achievements have been made in addressing some of development challenges faced by the developing countries since the first major Summit on Human Development in 1972. Despite these achievements a number of challenges have not been addressed. Some of the challenges are a result of an unequal representative of positions of the developed and developing countries at the international level. The Rio plus 20 Summit offers all the UN member states a chance to chart a new institutional architecture that ensures the implementation

of Agenda 21 Plan of Action under the principle of common but differentiated responsibilities.

2. The transformation of a green economy should be an opportunity to all countries and threat to none. Zimbabwe therefore agrees with the broad notion that the international efforts to help countries build a green economy in the context of sustainable development and poverty reduction must not:
 - v. Create new trade barriers
 - vi. Impose new conditionalities on aid and finance
 - vii. Widen technology gaps or exacerbate technological dependence of developing countries on developed countries.
 - viii. Restrict the policy space for countries to pursue their own paths to sustainable development.
3. Strong governance at the local, national, regional and global level is critical for advancing sustainable development. The country thus agrees with the following observations made under the negotiating text “The Future We Want” that the strengthening and reforms of the institutional framework should among other things:
 - i. Integrate the three pillars of sustainable development and promote the implementation of Agenda 21 and related outcomes, consistent with the principles of universality, democracy, transparency, cost-effectiveness and accountability, keeping in mind the Rio Principles, in particular common but differentiated responsibilities
 - ii. Provide cohesive, government-driven policy guidance on sustainable development and identify specific actions in order to fulfil the sustainable development agenda through the promotion of integrated decision making at all levels
 - iii. Monitor progress in the implementation of Agenda 21 and relevant outcomes and agreements at the local, national and global levels
 - iv. Reinforce coherence among the agencies, funds and programmes of the United Nations system, including the International Financial and Trade Institutions.

The following are the broad position of Zimbabwe on the proposed institutional reforms at the international, regional and national level

INTERNATIONAL

At the international level the country fully supports the proposal of strengthening UNEP including establishment of universal membership in its governing council. The country also supports the transformation of the UN Commission on Sustainable Development into a full council of Sustainable Development.

REGIONAL

Cooperation with regional institutions will form part of the regional integration and development strategy. The main institutions for cooperation will include SADC, COMESA, and EAC. Efforts will be made to work with NEPAD on key regional projects and programs. The SADC Regional Indicative Program will form the basis of cooperation within the context of sustainable development.

NATIONAL

The detailed modalities and institutional arrangements are still being worked out. A more participatory process to develop an institution framework at national level will be undertaken after the Rio Summit.

LOCAL

This will be decided during the national consultative process. Strong local institutions to support sustainable and the green growth strategy can only be secured through effective participation of the local population in both the rural and urban areas.

FRAMEWORK FOR ACTION PLAN

IMPLEMENTATION STRATEGY

The implementation strategy for the post Rio plus 20 national sustainable development agenda and the green growth strategy will be premised on the following key drivers:

Leadership with the ability to champion the sustainable development agenda under the greening concept

The new phase of the country's sustainable development agenda will require a leadership that understands the broad concept of sustainable development and how the greening concept will accelerate and enhance the country's path towards sustained growth. Capacity building across all the major groups including the three pillars of sustainable development, economic, social and environmental sectors will be pursued. Special attention on educating the youth on the greening concept and how to create wealth and jobs through the green growth strategy will be made. Public awareness campaigns on issues of sustainable production and consumption will be undertaken through various platforms including consumer groups. The sustainable use and equitable sharing of such resources as water, energy and biodiversity will be advocated for by the country's policy makers and political leadership.

Domestic policies and policy frameworks that promote the implementation of the concept

Adequate human resources will be mobilised to articulate and establish the appropriate institutional, policy and regulatory framework to support the post Rio plus 20 Action Plan under "The Future We Want". The institutional framework should facilitate a multi stakeholder approach and effective platform for stakeholder participation from village to the national level. A strong cooperation and win-win situation between the government, business, labour and the

general public will be encouraged. The participation of the finance houses in the mobilization of resources will be promoted.

Cleantech investments that bring in green technologies, finances, and products

Economic incentives that support domestic and foreign direct investments and bring in green technologies, financial products and machinery will be developed. A deliberate search for regional and international investments that support the country's sustainable development agenda will be pursued. Key sectors for investment could include the following, organic agriculture and production of organic farming inputs (fertilizers, pesticides etc), energy saving technologies and equipment, environmentally friendly and low cost water treatment technology, environmentally friendly mining technology and value addition to the country's minerals (production of motor spares from platinum i.e. catalytic convertors).

Mainstreaming of the green economy concept into key development frameworks and policies

There are a number of ongoing programs and projects that form an integral part of the national sustainable development agenda, efforts will be made to ensure there is complementarity with these programs. These include the current targets set towards achieving the MDGs, meeting the objectives of Industrial, Investment Policies and Trade Policies, Employment Creation Strategies, Education for Sustainable Development and Regional Integration and International trade Strategic actions. The current ZUNDAF program that will run from 2012 -2015 will be periodically reviewed to ensure it complements the national sustainable development targets. The gender dimensions of sustainable development and poverty eradication within the context of green growth will be periodically monitored and strategies developed to maximize the benefits.

MONITORING THE FRAMEWORK ACTION PLAN

A strengthened monitoring framework will be developed under a newly constituted National Sustainable Development Council. Baseline data on key development indicators that meet the current understanding of sustainable development will be established. The issue of accelerating MDG implementation to meet the 2015 target and the adoption of Sustainable Development Goals post 2015 will form part of the monitoring and implementation process. The effective use of the results of the 2012 National Census as baseline data will improve the national monitoring process. The engagement of the Zimbabwe National Statistics Agency in monitoring agreed indicators will be strengthened. Support from the UN country team in the implementation of the action plan through the provision of technical and financial resources will be sought. The role of major groups in both the monitoring and implementation of the action plan will be articulated during the design of the action plan.

A result based monitoring framework will be developed and will involve all the major groups. An annual review process will take place at the end of every year.

Annex 1:

National Priority Greening Projects:

Agriculture: Organic Farming, Tobacco Curing Technologies, Nitrogen Fixation Technologies, Water Efficiency Management, Climate Response Adaptation, Value Addition

Industry: Cleaner Production Centers and Standards, Recycling and Waste Management , Climate Change, Reequipping Machinery and Plant rehabilitation and Value Addition

Mining; EIAs and Mercury Use, Land degradation by Small Scale mining

Water: Management and Treatment (Quality Control and Urban Supply)

Energy; Demand Management and Alternative Supply (Renewable), Biofuels

Education: Environmental Education and Sustainable development, Ecosystems

Health: Biodiversity and Health, Traditional Medicine, Access and Benefit Sharing

Employment Creation: Infrastructure Repair and Housing, Agro Processing

Environmental Urban Planning and Management

Infrastructure, Reconstruction and Development