



TANZANIA

**10 YEAR PROGRAMME  
ON  
SUSTAINABLE CONSUMPTION AND PRODUCTION**

prepared by



The Cleaner Production Centre of Tanzania

with the  
support of



*December 2007*



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**List of Acronyms**

10-YFP	Ten Year Framework Programme
AMCEM	African Ministerial Conference on Environment
ARSCP	African Roundtable on Sustainable Consumption and Production
ARQB	Architects and Quantity Surveyors Registration Board
AU	Ardhi University
BWO	Basin Water Office
CAMARTEC	Centre for Agricultural Mechanization and Rural Technology
CBOs	Community Based Organizations
CPCT	Cleaner Production Centre of Tanzania
CT	Commission for Tourism, Zanzibar
CTI	Confederation of Tanzania Industries
CWSSP	Community Water Supply and Sanitation Programme
DIT	Dar es Salaam Institute of Technology
DoC	Department of Construction, Zanzibar
DoE-ZNZ	Department of Environment- Zanzibar
DTIE	Division of Technology, Industry and Economics
DWST	District Water and Sanitation Team
ERB	Engineers Registration Board
EWURA	Energy and Water Utilities Regulatory Authority
FCC	Fair Competition Commission
FSP	Facilitation Service Providers
GCLA	Government Chemist Laboratory Agency
GEF	Global Environment Facility
JPoI	Johannesburg Plan of Implementation
KTC	Karume Technical College
LGAs	Local Government Authorities
MAFSC	Ministry of Agriculture, Food Security and Cooperatives
MEM	Ministry of Energy and Minerals
MITM	Ministry of Industry, Trade and Marketing
MoEVC	Ministry of Education and Vocational Centers, Zanzibar
MoEVT	Ministry of Education and Vocational Training
MoHSW	Ministry of Health and Social Welfare
MoID	Ministry of Infrastructure Development
MoNRT	Ministry of Natural Resources and Tourism

**List of Acronyms ...**

MoW	Ministry of Water
NAWAPO	National Water Policy (2002)
NCC	National Construction Council
NEMC	National Environment Management Council
NGOs	Non-Governmental Organizations
NHBRA	National Housing & Building Research Agency, Min. Lands, Housing and Human Settlement
NRWSSP	National Rural Water Supply and Sanitation Programme
NSGRP	National Strategy for Growth and Reduction of Poverty
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PRSP	Poverty Reduction Strategy Paper
RWSSP	Rural Water Supply and Sanitation Programme
SCP	Sustainable Consumption and Production
TANESCO	Tanzania Electric Supply Company Ltd
TaTEDO	Tanzania Traditional Energy Development Organization
TBS	Tanzania Bureau of Standards
TCCIA	Tanzania chamber of Commerce, Industry and Agriculture
TSP	Technical Service Providers
TTB	Tanzania Tourist Board
UDSM	University of Dar es Salaam
UN-DESA	United Nations-Department of Economic and Social Affairs
UNEP	United Nations Environment Programme
UWSA	Urban Water and Sanitation Authority
WRMP	Water Resource Management Programme
WSSA	Water Supply and Sanitation Authority
ZATI	Zanzibar Association of Tourism Investors
ZIPA	Zanzibar Investment Promotion Agency
ZSFC	Zanzibar State Fuel Cooperation
ZWA	Zanzibar Water Authority



## EXECUTIVE SUMMARY

The Johannesburg Plan of Implementation (2002), as an outcome of the World Summit on Sustainable Development (WSSD) called for the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production patterns that will promote social and economic development within the carrying capacity of ecosystems.

The African Region has developed its 10 Year Framework of Programmes on Sustainable Consumption and Production. The process of developing the African 10 Year Framework Programme was facilitated by UNEP and UN-DESA in close consultation with the Secretariats of the African Ministerial Conference on Environment (AMCEN) and the African Roundtable on Sustainable Consumption and Production (ARSCP). The African 10-YFP underlines the importance of relating the principle of sustainable consumption and production with the challenge of meeting basic needs of the people.

As part of the implementation mechanism under the International Marrakech Process on the 10-YFP, the Federal Government of Germany took the lead to establish the Marrakech Taskforce on Cooperation with Africa. One of the key activities that have been identified in the context of the German Taskforce on Cooperation with Africa and the Regional follow-up on the African 10-YFP is to assist a few African countries and cities to develop their programmes on sustainable consumption and production. The overall objective of this component of activity is to promote the further elaboration and implementation of the African 10 Year Framework Programme on Sustainable Consumption and Production at national and city level and generate region-specific experience that could be replicated in other countries and cities in the region.

Tanzania was selected for support by UNEP-DTIE as a pilot country for the development of a country-level Programme on SCP with the facilitation of the Cleaner Production Centre of Tanzania (CPCCT).

Chapter 1 of this document describes briefly the local setting of the country by indicating the size of the land, topography and macroeconomic picture of the country. The status of sustainable production and consumption has been explained. Apart from sustainable production where there are a number of initiatives already in place, sustainable consumption has not yet been clearly introduced or formalized in the consumption patterns of our societies.



Chapter 2 addresses policy and institutional arrangements for sustainable development. Priority areas have been identified and their relevance to sustainable consumption and production discussed. Identification of sectoral policies relevant to sustainable consumption and production was based on the Four Thematic areas as identified at the First Expert Meeting on Sustainable Consumption and Production that was held in Casablanca 19-20 May, 2004. These include: Energy, Water and Sanitation, Urban Development and Industrial Development.

Chapter 3 provides sustainable consumption and production priorities. A list of sustainable consumption and production priorities for Tanzania in the context of the African 10-YFP have been drawn and specific actions/activities for sustainable consumption and production have been identified.

Chapter 4 presents pilot activities for the promotion of sustainable consumption and production. Pilot activities were selected on the bases of their relevance to national needs: potential to provide synergy to existing initiatives; relevance to SCP programme of the Africa region; potential to deliver quick impacts with multiplier effects; existence of capacity to implement within existing infrastructure; and more importantly being part of the global process supported by donor communities.

Basing on the four thematic areas of the African 10-Year Programme on Sustainable Consumption and Production, a total of six pilot activities have been proposed including one on education which is an indispensable component of the other pilot activities. These are : *Demand-side Management on Energy Use; Demand-Side Management on Water Use and Water Harvesting; Integrated Solid Waste Management Programme; Sustainable Building and Construction; Sustainable Manufacturing; Sustainable Tourism; Education for Sustainable Consumption.*

The profile for the proposed pilot activities defining the objectives of the activities to be undertaken, specific activities, results/outcomes and targeted groups/sector is also provided.

Chapter 5 is on Implementation and Monitoring. In this chapter implementation mechanism for each activity is elaborated by identifying implementing institutions, the verifiable indicators to facilitate the monitoring process and possible sources of funds.

Project Concept Notes for each pilot activity are provided in chapter six.



## 1. GENERAL OVERVIEW

Sustainable Consumption has been defined (UN CSD, 1995) as “the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations.” Underscored in this definition is that it is about meeting basic needs and changing our patterns of consumption, not “doing without” or consuming less. It is also more than “consuming green” for it is about consuming differently and efficiently. Sustainable Consumption and Production are two sides of the same coin. Interventions on Sustainable Consumption address the demand side which is about identifying how goods and services meet basic needs of the consumer and their delivery in ways that reduce the burden on the earth’s natural carrying capacity. The emphasis on Sustainable Production on the supply side focuses on efficient use of materials and energy to reduce economic costs and improve environmental performance in key economic sectors.

Changing consumption and production patterns is one of the overarching objectives of and essential requirements for sustainable development, as recognized by the Heads of State and Governments in the Johannesburg Declaration (WSSD, 2002).

Recognizing that consumption and production patterns are increasingly global and that international co-operation is needed to address them in cost-effective ways, the Johannesburg Summit called for the “development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production patterns that will promote social and economic development within the carrying capacity of ecosystems.

The African region has been active in this endeavour and has developed its 10 Year Framework of Programmes on Sustainable Consumption and Production. The process of developing the African 10 Year Framework Programme was facilitated by UNEP and UN-DESA in close consultation with the Secretariats of the African Ministerial Conference on Environment (AMCEN) and the African Roundtable on Sustainable Consumption and Production (ARSCP). The African 10-YFP underlines the importance of relating the principle of sustainable consumption and production with the challenge of meeting basic needs of the people.

As part of the implementation mechanism under the International Marrakech Process on the 10-YFP, the Federal Government of Germany took the lead to establish the Marrakech Taskforce on Cooperation with Africa. One of the key activities that have been identified in the context of the German Taskforce on Cooperation with Africa and the Regional follow-up





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## 1.1 LOCAL SETTING

Tanzania is a large country covering about 945,200 Km<sup>2</sup> of which 942,800 Km<sup>2</sup> is Tanzania mainland. Of the total area under Tanzania mainland 881,330 Km<sup>2</sup> is land and 61,470 Km<sup>2</sup> is water. Most of Tanzania mainland is covered by extensive forest and woodlands offering a diverse habitat for wildlife, unique ecosystems and valuable genetic resources. A wide ecological diversity favours production of wide range of agriculture, livestock, forest and marine products. Tanzania is also rich in some mineral resources particularly gold, diamond, gemstone, coal, tin, mica, salt, gypsum, lime and natural gas.

It has a tropical climate, a diverse ecology with different physiographic zones and a complex topography, with altitude from sea level to the summit of Mt. Kilimanjaro, an isolated volcanic mass rising to 5,895 metres, the highest peak in Africa, lying in the north-east of the country.

Tanzania has a mixed economy in which agriculture plays the leading role. Agriculture which includes crops, livestock, fishery, and hunting sub-sectors, contributes the largest share (45 percent) to the Gross Domestic Product (GDP) and accounts for approximately 80 percent of total employment. Other important sectors of the economy are mining and manufacturing (industrial).

Industrial sector employment accounts for about 18% of total wage employment and remains to be the largest single source of urban employment in the country. The sector also facilitates development of other sectors of the economy through supply and demand relationships. The industries are primarily agricultural processing (sugar, beer, cigarettes, sisal twine), diamond and gold mining, shoes, cement, textiles, wood products, metal processing, plastics and salt. Most of the industries were established in the light of import substitution strategy, whereas



production focused in substituting previously imported goods in view of saving the country's meagre foreign exchange (Tanzania National Website, 2003).

In Tanzania environmental problems are closely linked with the sustainable management of natural resources. The Government has recognized the need to pursue development policies and strategies that are environmentally friendly in order to ensure sustainable development in all sectors of the economy. Sustainable development is currently the central concept in almost all the National Policies and Strategies.

## 1.2 STATUS OF SUSTAINABLE CONSUMPTION AND PRODUCTION

### 1.2.1 Sustainable Production.

In Tanzania a number of sustainable development measures have been initiated. Different Stakeholders have taken different measures/ initiatives related to sustainable production. Some of these measures/initiatives can be explained as follows:

**a) Cleaner Production Practices:** Tanzania has been involved in Cleaner Production initiatives since 1994. These initiatives include the establishment of the Cleaner Production Centre of Tanzania (CPCT). Since its establishment, the CPCT has promoted the cleaner production concept in enterprises and many other stakeholder institutions and organisations in the country. The Centre has demonstrated to the enterprises that investing in cleaner production is not only beneficial to the environment, but it also brings financial savings to the enterprises as well as improving the health and safety of the workers.

Financial Institutions have also been sensitized on the cleaner production concept, financing of cleaner production, development of fundable projects and loan applications. To-date, about 69 industries have benefited including those in the cities of Mwanza, Dar es Salaam and municipalities of Arusha, Morogoro, Tanga, and Zanzibar.

Through the above initiatives, short, medium and long – term technological options and techniques were identified and some of them put into practice. Efficiency in the utilization of raw materials, water and energy has improved remarkably.

Outstanding projects and practices being implemented and replicated in various other industries include waste water recycling; solid waste recycling; energy auditing; alternative energy sources; and good housekeeping practices.



- b) Sustainable Cities Programmes:** The programme is being implemented in eight municipalities and five cities in the country. The programmes address issues of infrastructure, waste management, resource management, sanitation, and awareness on energy efficiency technologies. Infrastructure rehabilitation/development in planned and unplanned (i.e serviced and un-serviced) settlements is underway using government subsidies, LGAs and donor funds with the aim of adding stock to existing infrastructure facilities. This programme is also supported and complemented with a programme on *Cities Without Slums; a Sub Regional Programme for Eastern and Southern Africa*. Specific attention is on the unplanned settlements and Slum Upgrading.
- c) Urban Transport Reforms:** are being undertaken to address traffic congestion and associated negative impacts such as air pollution and road accidents in urban centres. The Bus Rapid Transit System branded “Dar Rapid Transit-DART” being implemented by Dar es Salaam City Council is one of the key initiatives addressing urban transport challenges. The system will enable the articulation of various positive impacts of sustainable transportation.
- d) Utilization of Natural Gas for Thermal Applications.** Following the discovery of Natural Gas in the country about twenty industries have switched from using either oil, coal or wood fuel to Natural Gas. Plans to connect more industries are underway. Natural Gas is a clean fossil fuel, emitting less CO<sub>2</sub> per unit of energy provided than oil or coal. Natural gas is harvested at SongoSongo Island offshore on the Indian Ocean where the gas reserve is estimated to be 726 billion ft<sup>3</sup>. There is also a significant gas field at Mnazi Bay near Mtwara.
- e) Biomass Co-Generation:** Currently there are a number of initiatives in place of generating electricity using biomass (in particular agricultural waste). Sugar industries are among the leading sector in biomass co-generation. In total sugar mills generate 38MW of electricity. Sugar industries utilise the bagasse by-product for generating electricity. Other Industries which have made progress in this initiative include TANWAT-2.5MW, Saohill-1.0MW, Mufindi Paper Mills- 15.0MW and Hale Sisal Estate (150kW). The biomass energy resource, which comprises fuel-wood and charcoal from both natural forest and plantations, accounts for 93 per cent of total energy consumption.
- f) Dissemination Programmes of Efficient Cook Stoves.** Various programmes are ongoing in this area. The targeted group are low-income rural and urban households as well as small businesses and institutions using biomass energy for cooking, baking, heating and other food processing applications.



A number of players are involved in research development and dissemination of efficient technologies in this area. They include; TaTEDO, CAMARTEC, SIDO, COSTECH, Universities, among others.

### **1.2.2. Sustainable Consumption.**

Sustainable Consumption has not yet been clearly introduced or formalized in the consumption patterns of our societies. Consumers have in most cases been concerned with prices, whether the product is genuine, lasts longer, country of origin, common in the market etc. Little attention is paid on pertinent issues like labels, data sheets, and inquiry on the product efficiency, environmentally friendly, disposal method after life. Consumers are also not sensitive on the accruing costs during its use.

Currently Consumer movements are not well established in the country and where they exist, they are mainly concerned with consumer protection. The only institutions which have functions that are more or less related to the protection of the interest of the consumers are the Tanzania Bureau of Standards which is responsible for the administration of product standards issues; The Fair Competition Commission which is an independent Government body to promote and protect effective competition in trade and commerce and prevent unfair and misleading market conduct in order to increase efficiency in the production, distribution and supply of goods and services, promote innovation, maximise the efficient allocation of resources, and protect consumers; and The Weights and Measures Agency which was established to provide protection of consumers in relation to weights and measures.

The other group which can easily facilitate in sustainable consumption are Traders. Whereas it is a well known fact that the efficient technologies/products have been developed and are in the market, but those who play the role of distribution like the Traders do not bring them to our market. This is because, either the traders are not aware of the concept of sustainable consumption, or the products are expensive and therefore may not be fast moving. In most cases we have experienced the markets being flooded with second hand products, especially electrical domestic appliances.

However in the process of implementing Cleaner Production Programmes it's been possible to achieve sustainable consumption requirements especially for water and energy consumption. For cases of water consumption most companies have controlled leakages, installed "push button corks" to control water use and carrying out waste water recycling. For example Nyanza Bottling Plant in Mwanza has managed to reduce consumption of water from 5.5 litres of water/litre of beverage to 4.2 liters/liter of beverage.



For cases of energy consumption most companies have installed power factor correctors, carrying out energy audits, using energy saving equipment and appliances and good housekeeping.

### **Programmes on Sustainable Consumption**

Energy and Water Utilities Regulatory Authority (EWURA) is an autonomous statutory body created under Cap 414 of the Laws of Tanzania. It is responsible for technical and economic regulation of Electricity, water, Petroleum and Natural Gas sectors. The EWURA law requires EWURA to consult with consumers, government and industry, therefore the same Act established EWURA CONSUMER CONSULTATIVE COUNCIL (EWURA CCC) to safeguard the interests of consumers of EWURA regulated services.

EWURA CCC believes that efficient use of regulated goods and services will save consumers' money. Accordingly EWURA has started to institute measures for accounting for water produced and consumed by customers. The measures include strengthening the metering of water consumption. Further more EWURA has initiated a programme to sensitize consumers on best practices on energy usage so as to avoid unnecessary bills.

### **1.3. POLICY AND INSTITUTIONAL ARRANGEMENTS FOR SUSTAINABLE DEVELOPMENT**

In Tanzania, the Vice President Office is responsible for the Environment portfolio. This Office, through the Division of Environment, is responsible for the development of policy options, and coordination of the broad-based environmental programmes and projects. In particular, the Office is charged with the duties and responsibilities of environmental research, environmental policy making, environmental planning, environmental monitoring, and environmental coordination of both national and international environmental issues.

The National Environment Management Council (NEMC) is an implementation agency under the Vice President's Office. The objective and purpose for which the Council is established to undertake enforcement, compliance, review and monitoring of environmental impact assessment and to facilitate public participation in environmental decision making, exercise general supervision and coordination over all matters relating to the environment assigned to the council.



Apart from the Vice President's Office and NEMC, many Sector Ministries have reviewed their policies to ensure the incorporation of environmental concerns.

Such Policies include Agricultural and Livestock Policy (1997), National Water Policy (2002), National Health Policy (1990), National Transport Policy (2003), The Energy Policy (2003), The Mineral Policy of Tanzania (1997), Human Settlement Development Policy (2000), Sustainable Industrial Development Policy (1996-2020), National Tourism Policy (1999), National Forest Policy (1998), National Fisheries Policy and Strategy Statements (1997) and The Wildlife Policy of Tanzania. Specifically the review focused on balancing the economic growth with more efficient and sustainable use of the environment and natural resources.

## **2. SUSTAINABLE DEVELOPMENT STRATEGIES AND POLICIES**

### **2.1 National Development Strategies**

Tanzania has two basic National Strategies and Policies which guide all development programmes:

#### **a) The National Development Vision (2025)**

This is a long-term development plan elaborating Tanzanians aspirations in economic and social development arena by the year 2025. It envisions that Tanzania will have transformed from a least developed country to a middle-income country by the year 2025 with a high level of human development characterized by improvements in the quality of livelihood of the people. The economy will have transformed from a low productivity agricultural economy to a semi industrialized one led by modernized and highly productive agricultural activities which are effectively integrated and buttressed by supportive industrial and service activities in the rural and urban areas. A solid foundation for a competitive and dynamic economy with high productivity will have been laid. The principal objectives of the Vision 2025 are:

- a) Achieving quality and good life for all;
- b) Good governance and the rule of law; and
- c) Building a strong and resilient economy that can effectively withstand global competition.

It also envisaged that fast growth would be pursued while effectively reversing current adverse trends in the loss and degradation of environmental resources (such as forests, fisheries, fresh water, climate, soils and biodiversity) and in accumulation of hazardous substances.





Priority areas of the strategy include; Sound Macroeconomic Management; Infrastructure Development; Science and Technology; Information and Communication Technologies (ICTs) and Domestic Resources.

### **b) The National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA)**

The strategy identifies factors that are a cause of poverty in Tanzania. Degradation of the environment and climate variability, a manifestation of climate change, have been cited as being among these factors. Poverty- Environment indicators have been developed to monitor progress in poverty alleviation through various environmental management initiatives.

The NSGRP gives special emphasis to poverty, environment linkages and emphasizes “ a commitment to ensuring that development activities today do not adversely affect the development needs for future generations, emphasizing sustainable use of the country’s natural resources and avoiding harmful effects of the environment and on people’s livelihoods”. The strategy sets indicative guides to appropriate environment action in respect of its three clusters of poverty reduction outcomes, namely: growth and reduction of income poverty; improvement of quality of life and social well-being; and good governance and accountability. Mainstreaming climate change and environment generally into these clusters was done through the guidelines and through training and awareness building activities. .

Priority areas are; Sound Economic Management and Sustainable and Broad Based Growth.

## **2.2 National Policies**

### **a) National Environmental Policy (1997)**

The National Environmental Policy (1997) provides a framework for making fundamental changes that are needed to bring environmental considerations into the mainstreaming of decision making in Tanzania. It does provide policy guidelines and plans and gives guidance to the determination of priority actions, for monitoring and regular review of policies plans and programmes. It further provides for sectoral and cross-sectoral policy analysis thus exploiting synergies among sectors and interested groups.

The overall policy objectives are:-



- i. To ensure sustainability, security and equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health or safety;
- ii. To prevent and control degradation of land, water, vegetation, and air which constitute our life support systems;
- iii. To raise public awareness and understanding of the essential linkages between environment and development, and to promote individual and community participation in environmental action;
- iv. To promote international cooperation on the environmental agenda, and expand our participation and contribution to relevant bilateral, sub regional, regional and global organizations and programs, including implementation of Treaties.
- v. To conserve and enhance our natural resource and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania.
- vi. To improve the condition of productivity of degraded areas including rural and urban settlements in order that all Tanzanians may live in safe, healthful, productive and aesthetically pleasing surroundings.

The specific priority areas include:

- i. Abatement of land degradation that may lead to loss of soil productivity,
- ii. Ensuring accessibility to good quality water for urban and rural inhabitants,
- iii. Environmental Pollution,
- iv. Loss of wildlife habitats and biodiversity
- v. Deterioration of aquatic systems , and
- vi. Deforestation.

Action Plans, Strategies and Programs are in place to address these priority areas: These include:

- National Action Plan to Combat Drought and Desertification;
- National Biodiversity Strategy and Action Plan;
- National Implementation Plan for the Stockholm Convention on POPs (2005);
- National Strategy for the Urgent Action on Land and Water Catchments Conservations (2006).

## **b) National Environmental Policy for Zanzibar**

National Environmental Policy for Zanzibar is based upon the following guiding principles:





- i) To ensure the maintenance of basic ecological processes upon which all productivity and regeneration, on land and in the sea, depend.
- ii) To promote the sustainable use of renewable resources and rational use of non-renewable resources, and to minimize irrational use, contamination or destruction of resources.
- iii) To preserve the biological diversity, cultural reaches and natural beauty of Zanzibar's lands and seas.
- iv) To ensure that the quality of life of the people of Zanzibar, present and future, is not harmed by destruction, degradation or pollution of their environment.
- v) To strengthen both the institutional mechanisms for protecting the environment and the capabilities of the institution involved.

### 2.3 SUSTAINABLE DEVELOPMENT PRIORITIES

Sustainable development priorities which are relevant to the promotion of sustainable consumption and production have been identified from the priority areas mentioned in subsection 2.1. These are presented in the form of a matrix as shown in **Table 1**. The table also provides information on respective key actions/activities and their relevance to the sustainable consumption and production.



Table 1: Sustainable Development Priorities

Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<b>National Development Vision (2025)</b>	Transforming Tanzania from a least developed country to a middle- income country by the year 2025. <u>Specific Objectives:</u> - High quality livelihood - Peace Stability and Unity - Good governance - A well Educated and learned Society - Strong & competitive economy	a) Sound Macroeconomic Management	a) Formulation of sound macroeconomic policy  b) Reorienting the role of the government and enhancement of its core competence in providing leadership.	The Strategy is in conformity with the African SCP programme in the coverage of priority sectors under the strategic options for economy and development.
		b) Infrastructure development	Promotion of private sector & community investment in infrastructure development including rural road network, energy, water and telecommunications to stimulate local and foreign investment and create wealth and employment opportunities.	
		c) Science and technology education	Promotion of the application of science and technology in enhancing productivity through continuous learning and publicity campaigns.	
		d) Information and communication technologies (ICTs)	Promotion of information and communication technologies for enhancement of productivity and competitiveness.	
		e) Domestic resources	Promoting the utilization of Domestic resources (natural, human and financial).	



Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<b>National Strategy for Growth and Reduction of Poverty (NSGRP) (2005)</b>	Economic growth and reduction of poverty	a) Sound economic management	a) Pursuing prudent fiscal and monetary policies to stimulate increased production	Poverty reduction is well linked with environmental protection.
		b) Sustainable and broad based growth	a) Strengthening the link between agriculture and industry b) Promoting appropriate production and processing technology c) Increasing productivity and profitability in agriculture through technological innovations d) Promoting use of appropriate and environmentally friendly technologies.	
<b>National Environmental Policy</b>	a) To ensure sustainability, security and equitable use of resources. b) To prevent and control degradation of land, water, vegetation, and air. c) To raise public awareness and understanding of the essential linkages between environment and development. d) To promote international cooperation on the environmental agenda.	a) Abate land degradation that may lead to loss of soil productivity b) Ensuring accessibility to good quality water for urban and rural inhabitants. c) Environmental Pollution d) Loss of wildlife habitats and biodiversity e) Deterioration of aquatic systems f) Deforestation	a) Ensuring the mainstreaming of environmental considerations in sectoral policies and programmes.  b) Promotion of environmentally sound technologies (EST). c) Promoting efficient use of resources	The policy is significantly in conformity with the African Programme on SCP.



## 2.4 Sector specific Policies

Identification of Sectoral Policies which are relevant in the context of the African Ten Year Framework Programme (10-TFP) was based on four (4) thematic areas as identified at the First Expert Meeting on Sustainable Consumption and Production that was held in Casablanca 19-20 May, 2004. These include: Energy, Water and Sanitation, Urban Development and Industrial Development. In this respect the sectoral policies which fall under these criteria include:

- a) The National Energy Policy (2003);
- b) The National Water Policy (2002);
- c) The Human Settlements Development Policy (2000);
- d) The Sustainable Industrial Development Policy (1996-2020); and
- e) The Small and Medium Enterprise (SMEs) Development Policy (2003)

### a) The National Energy Policy (2003)

The National Energy Policy (2003) aims at ensuring availability of reliable and affordable energy supplies and their use in a rational and sustainable manner in order to support national development goals. The goal of this policy is to establish an efficient energy production, procurement, transportation, distribution and end use systems in an environmentally sound and sustainable manner.

The basic features and considerations of energy sector development which relate to sustainable consumption and production are reflected in the following policy statements:

- Promotion of energy efficiency and conservation as national priorities to achieving sustainable economic development;
- Enhancing environmental management regimes on all energy activities including application of economic instruments for changing market behaviour; and
- Application of appropriate technologies that are affordable, environmentally sound and will adapt to local needs; commercialising existing technologies and promoting researches and pilot testing of feasible technological options.

Priority areas of the Energy Policy:

- a) Establishment of an efficient energy production, procurement, transportation, distribution and use systems in an environmentally sound and sustainable manner,
- b) Promotion of energy efficiency and conservation,



- c) Application of appropriate energy technologies that are affordable and environmentally friendly.

## **b) The National Water Policy (2002)**

The National Water Policy addresses three sub-sector issues namely:

- i) Water Resource Management,
- ii) Rural Water Supply, and
- iii) Urban Water Supply and Sewerage.

The objective of the policy for Water Resources Management is to develop a comprehensive framework for promoting the optimal, sustainable and equitable development and use of water resources for the benefit of the present and the future generation, based on a clear set of guiding principles. For Rural Water Supply the objective is to improve health and alleviate poverty of the rural population through improved access to adequate and safe water. Urban Water Supply and Sewerage aims at setting a framework for achieving an efficient development and management of Urban Water Supply and Development Services.

Priority areas of the Water Policy are:

- a) Water accessibility- To have in place fair and equal procedures in access to and allocation of water resources so that all social and economic activities including sanitation are able to maximize their capacities.
- b) Sustainable water use and conservation - to have in place appropriate principles and procedures for managing the quality and conservation of water resources, as well as improve and protect the ecological systems and wetlands.
- c) Water quality management and pollution control - to have water resources with an acceptable quality.

## **c) The National Human Settlements Development Policy (2000)**

The development of human settlements in the country has not been sustainable because it has not combined socio-economic development with environmental conservation and protection and thereby aggravating urban and rural poverty. At the same time, the delivery of shelter in urban and rural settlements of Tanzania is inadequate and lacking in infrastructure and services leading to non-sanitary situations which threaten the health and productivity of the



people. The Government thus intends to facilitate adequate delivery of shelter and the development of sustainable human settlements in the country.

The overall goal of the National Human Settlements Development Policy then, is to promote the development of sustainable human settlements and facilitate the provision of adequate and affordable shelter to all income groups in Tanzania.

The main objectives of the policy are:

- i) To make serviced land available for shelter and human settlements development in general to all sections of the community including women, children, youth, the elderly, disabled and disadvantaged.
- ii) To improve the level of the provision of infrastructure and social services for sustainable human settlements development;
- iii) To facilitate the creation of employment opportunities and eradication of poverty;
- iv) To promote and include the participation of the private and popular sector, Community Based Organisations (CBOs), Non-Government Organisations (NGOs), co-operatives and communities in planning, development and management of human settlements;
- v) To protect the environment of human settlements and ecosystems from pollution, degradation and in order to attain sustainable development;
- vi) To promote the building of capacities in training and retraining of professionals in fields related to shelter delivery, human settlements development and environmental management
- vii) To promote capacity building (i.e. technical, financial and managerial) of all actors involved in shelter delivery and human settlements development.

Priority areas of the Policy:

- i. Ensuring availability & access to land for human settlements development;
- ii. Planning and revision of inflexible and unaffordable building regulations and standards to give room for use of innovation and technology;
- iii. Upgrading of unplanned and unserviced human settlement;
- iv. Protect the environment of human settlement and ecosystems from pollution, degradation and destruction in order to attain sustainable development;
- v. Promotion of Integrated Solid Waste Management to improve the health of the people and environment; and
- vi. Promotion of sustainable urban mobility to improve the health of the people and environment.



#### **d) Sustainable Industrial Development Policy (SIDP) (1996- 2020)**

The main mission of SIDP is to contribute towards the achievement of the overall national long-term development goals as enshrined in the overall national vision, and to enhance sustainable development of the industrial sector. Specifically the policy is geared to contribute to:

- Human development and creation of employment opportunities,
- Economic transformation for achieving sustainable economic growth, and
- Environmental sustainability and equitable development.

Policy Priority Areas are:

- i. Contribution to human development and creation of employment opportunities;
- ii. Economic transformation for achieving sustainable economic growth;
- iii. Contribution to external balance of trade; and
- iv. Promotion of Sound Environmental Management in Industries

#### **e) Small and Medium Enterprise (SMEs) Development Policy (2003)**

In Tanzania, the SME sector has been recognized as a significant sector in employment creation, income generation, poverty alleviation and as a base for industrial development. Based on the importance of this sector and its potential, the SME Development Policy has been designed to revitalize the sector to enable it to contribute to the objective of the National Development Vision 2025.

The overall objective of the SMEs Development Policy is to foster job creation and income generation through promoting the creation of new SMEs and improving the performance and competitiveness of the existing ones.

Priority areas in the context of the African 10- YFP are:

- i. Promoting entrepreneurship development through facilitating improved access of SMEs to financial and non-financial services.
- ii. Ensuring that environmental considerations are given due emphasis in all SME development intervention



Table 2. Sustainable Development Priorities at Sectoral Level.

Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<b>The National Energy Policy (2003)</b>	<p>To ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner in order to support development goals.</p> <p>The goal of this policy is to establish an efficient energy production, procurement, transportation, distribution and end use systems in an environmentally sound and sustainable manner.</p>	<p>a) Establishment of an efficient energy production, procurement, transportation, distribution and end use systems in an environmentally sound and sustainable manner</p> <p>a) Promotion of energy efficiency and conservation</p> <p>b) Application of appropriate energy technologies that are affordable and environmentally sound.</p>	<p>a) Promote alternative energy systems including co-generation, natural gas and renewables.</p> <p>b) Promote research and widespread application of efficient biomass energy technology alternatives</p> <p>c) Institute measures to ensure reliable and stable energy supply</p> <p>d) Promote energy demand-side management measures.</p>	Policy actions tie up well with the Regional SCP programme priorities on energy.





Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<p><b>National Water Policy (2002)</b></p>	<p>To develop a comprehensive framework for promoting the optimal, sustainable and equitable development and use of water resources.</p>	<p>a) Water accessibility - To have in place fair and equal procedures in access to and allocation of water resources so that all social and economic activities are able to maximize their capacities.</p> <p>b) Sustainable water use and conservation - To have in place appropriate principles and procedures for managing the quality and conservation of water resources, as well as improve and protect the ecological systems and wetlands.</p> <p>c) Water quality management and pollution control - To have water resources with an acceptable quality.</p>	<p>a) Ensuring availability of water in adequate quantity and quality for socio-economic development activities</p> <p>b) - Promote efficient abstraction and distribution amongst urban and rural water supply entities and efficient use by hydropower producers, irrigators, industries, mining operators, etc for purposes of sustainability.</p> <p>- Trading of water rights, application of economic incentives and pricing for water use</p> <p>- Encouraging rainwater harvesting, wastewater recycling and desalination of seawater as a means of increasing the availability of water resources.</p> <p>c)- Water quality monitoring and assessment for early detection of problems and implementation of remedial measures</p> <p>- Application of the "polluter pays" principle in conjunction with other legal and administrative actions.</p> <p>- Creation of public awareness in the importance of protecting water resources from pollution including that resulting from inappropriate use of agrochemicals.</p>	<p>Demand side management issues such as water use efficiency, conservation, and recycling.</p>



Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<p><b>The National Human Settlements Development Policy (2000)</b></p>	<p>Promoting the development of sustainable human settlements and facilitation of the provision of adequate and affordable shelter to all income groups in Tanzania.</p>	<ol style="list-style-type: none"> <li>1. Ensuring availability &amp; access to land for human settlements development</li> <li>2. Planning and revision of inflexible and unaffordable building regulations and standards to give room for use of innovation and technology</li> <li>3. Provision of infrastructure and improvement of social services for sustainable human settlement development.</li> <li>4. Upgrading of unplanned and unserviced human settlement</li> <li>5. Environmental management</li> </ol>	<ol style="list-style-type: none"> <li>a) Ensuring that serviced and surveyed land is available to all income groups including estate developers on cost recovery basis;</li> <li>b) Streamlining of procedures for getting legal rights of occupancy with the aim of shortening it;</li> <li>c) Reviewing building and construction standards so that they become functional and performance based;</li> <li>d) Accelerating timely issuance of building permits;</li> <li>e) Facilitating the establishment and operation of swift, safe and efficient transport systems in urban areas;</li> <li>f) Improving solid and liquid waste management in urban areas;</li> <li>g) Encouraging the use of alternative, affordable and appropriate sources of energy;</li> <li>h) Instituting mechanisms for monitoring air pollution levels in urban centres.</li> </ol>	<p>Potential for mainstreaming SCP principles in urban waste management and transportation</p>



Strategies/ Policies	Objectives	Priority areas	Key actions/activities	Relevance to SCP
<b>Sustainable Industrial Development Policy (SIDP) (1996- 2020)</b>	To enhance sustainable development of the industrial sector. <u>Specific objectives</u> are geared to contribute to: Human development and creation of employment opportunities, and Economic transformation for achieving sustainable economic growth.	<ol style="list-style-type: none"> <li>1. Contribution to human development and creation of employment opportunities</li> <li>2. Economic transformation for achieving sustainable economic growth</li> <li>3. Contribution to external balance of trade</li> <li>4. Promotion of Sound Environmental Management in Industries</li> <li>5. Promote Cleaner Production Practices</li> </ol>	<ol style="list-style-type: none"> <li>i) Carrying out sensitization on environmental awareness in its broader application relation to people, land and wildlife.</li> <li>ii) Promoting the continuous application of an integrated preventive environmental strategy to industrial processes, products and services which includes propagating efficient use of raw materials and energy.</li> <li>iii) Enhancing application of cleaner production concept as a complement to end-of-pipe pollution control.</li> </ol>	Potential for application of SCP principles
<b>Small and Medium Enterprise (SMEs) Development Policy (2003)</b>	To foster job creation and income generation through promoting the creation of new SMEs and improving the performance and competitiveness of the existing ones.	<ol style="list-style-type: none"> <li>a) Promoting entrepreneurship development through facilitating improved access of SMEs to financial and non-financial services.</li> <li>b) Ensuring that environmental considerations are given due emphasis in all SME development interventions</li> </ol>	<ol style="list-style-type: none"> <li>i) Inculcate values and attitudes that are conducive to entrepreneurship development through education, training and other programmes</li> <li>ii) Facilitate capacity building in entrepreneurship development</li> <li>iii) Facilitate creation of awareness on environmental issues to SMEs and their service providers;</li> <li>iv) Facilitate simplification of environmental impact assessment procedures,</li> <li>v) Encourage proper waste management including recycling techniques</li> <li>vi) Facilitate adoption of technologies which apply renewable energy.</li> </ol>	Linked to regional SCP priorities through renewable energy and environmental management issues.



## 2.5 Policy and Regulatory Provisions directly related to SCP

In addition to the above policies, there are a number of national Policies and sectoral legal and regulatory frameworks that have provisions which refer to Cleaner Production and therefore may be considered to be directly related to Sustainable Consumption and Production. These include:

### a) **Sustainable Industrial Development Policy – SIDP (1996 – 2020):**

Section 3.5.3 item (e) of SIDP on Sound Environmental Management; it is stipulated that, the Government will promote the continuous application of an integrated preventive environmental strategy to industrial processes, products and services. This strategy will include propagating efficient use of raw materials and energy; elimination of toxic or dangerous materials, as well as reduction of emissions and wastes at source. In this regard, the government will develop the capacity within its institutional machinery and support other initiatives designed to enhance application of clean production concept as an important complement to end - of - pipe pollution control.

### b) **National Environment Policy-1997**

Under item 56 (e) of the National Environment Policy it is stipulated that the policy objective shall be to pursue the installation of resource – saving and waste – recycling facilities, use of clean technology and production of safe and less toxic products.

### c) **Environmental Management Act (2004) (EMA)**

Section 79 of EMA promotes cleaner production technologies and techniques as well as the sustainable consumption of goods and services. It provides for development of guidelines on these aspects to guide industrial, tourism, trade, mining, agricultural and service oriented activities and monitoring of the impact of cleaner production. The act also provides for guidelines on mainstreaming of cleaner production and sustainable consumption approaches into relevant policies at government and company levels and in financing procedures of the financial institutions in Tanzania.

### d) **Energy and Water Utilities Regulatory Authority Act**

The Energy and Water Utilities regulatory Authority Act, 2001 and its amendment of 2003 establish the Energy and Water Utilities Regulatory Authority (EWURA). In addition to



Water issues, it provides for the functions of the EWURA relating to the regulation, management, development and utilization of energy resources in Tanzania. These include the granting of licenses for the generation, transmission, distribution and sale of electricity and natural gas; and the refining, storage, bulk distribution, marketing and sale of white (refined) petroleum products.

The EWURA law requires to consult with consumers, government and industry, therefore the same Act established EWURA CONSUMER CONSULTATIVE COUNCIL (EWURA CCC). The Objective of EWURA CCC is to safeguard the interests of consumers of EWURA regulated services..

EWURA CCC believes that efficient use of regulated goods and services will save consumers money. Apart from representing the consumers on matters pertaining to tariff increase, EWURA CCC has the function to disseminate information on best practices on energy usage so as to avoid unnecessary bills.

#### e) **Other Policies and Acts**

Other acts and policies related to SCP promotion include the Mineral Policy, Trade Policy, The Tanzania Standards Act No. 3 of 1975; Occupational Health and Safety Act, 2003; Industrial and Consumer Chemicals (Control and Management) Act, 2003; Public Procurement Act, 2004; Export Processing Zones Act No. 11 of 2002; Government Executive Agencies Act No. 30 of 1997; The Tanzania Food, Drugs and Cosmetic Act No. 1 of 2003; The Agricultural and Livestock Policy of 1997; and the Surface and Marine Transport Regulatory Act.

### **3. SUSTAINABLE CONSUMPTION AND PRODUCTION PRIORITIES**

The national list of Sustainable Consumption and Production priorities for Tanzania in the context of the African 10-YFP has been drawn from the list of priorities already underscored in the previous chapters. Along with these priorities, specific actions/activities for sustainable consumption and production have been identified. Implementation of these activities will lead to sustainable resource consumption. The funds accruing from the savings can be invested in other development programmes. **Table 3** provides a matrix giving specific actions/activities for all the Regional priority areas. Also for each action/measure responsible Lead Institution (s) were identified.



Table 3. Preliminary list of SCP priorities for Tanzania in the context of the African 10-YFP

Regional priority areas	National priorities	Programmes & Activities	Specific actions/activities for sustainable consumption and production	Responsible/lead institution(s)
Water and sanitation	<p>a) Water accessibility - to have in place fair and equal procedures in access to and allocation of water resources so that all social and economic activities are able to maximize their capacities.</p> <p>b) Sustainable water use and conservation - to have in place appropriate principles and procedures for managing the quality and conservation of water resources, as well as improve and protect the ecological systems and wetlands.</p> <p>c) Water quality management and pollution control - to have water resources with an acceptable quality.</p>	<p>a) Ensuring availability of water in adequate quantity and quality for socio-economic development activities</p> <p>b) Promote efficient abstraction and distribution amongst urban and rural water supply entities and efficient use by hydropower producers, irrigators, industries, mining operators, etc for purposes of sustainability.</p> <p>c) Trading of water rights, application of economic incentives and pricing for water use</p> <p>d) Encouraging rainwater harvesting, wastewater recycling and desalination of seawater as a means of increasing the availability of water resources.</p> <p>e) Water quality monitoring and assessment for early detection of problems and implementation of remedial measures</p> <p>f) Application of the "polluter pays" principle in conjunction with other legal and administrative actions.</p> <p>g) Creation of public awareness in the importance of protecting water resources from pollution including that resulting from inappropriate use of chemicals.</p>	1. Institute <b>demand-side management</b> to promote efficient water consumption and conservation.	CPCT, MoW, EWURA, MITM, LGAs, NGOs & CBOs
			2. Implement water harvesting and reuse practices in urban and rural communities.	CAMARTEC, MoW, MoEVT, NGOs, CBOs & VPO, NRWSSP, CWSSP
			3. Initiate community-based water and sanitation programmes in urban and rural areas.	MoW, LGAs, CBOs NRWSSP, CWSSP



Regional priority areas	National priorities	Programmes & Activities	Specific actions/activities for sustainable consumption and production	Responsible/lead institution(s)
<b>Energy</b>	<p>a) Establishment of an efficient energy production, procurement, transportation, distribution and end use systems in an environmentally sound and sustainable manner.</p> <p>b) Promotion of energy efficiency and conservation.</p> <p>c) Application of appropriate energy technologies that are affordable and environmentally sound.</p>	<p>a) Promote alternative energy systems including co-generation, natural gas and renewable sources.</p> <p>b) Promote research and widespread application of efficient biomass energy technology alternatives.</p> <p>c) Institute measures to ensure reliable, stable, affordable and efficient energy supply.</p> <p>d) Promote energy demand-side management measures.</p>	1. Initiate energy efficiency programmes to address the entire cycle of energy generation, transmission and distribution.	MEM, EWURA, TANESCO, ZSFC & CPCT
			2. Implement a <b>demand-side management programme</b> , including use of energy efficient equipment, appliances and gadgets.	CPCT, MITM, FCC EWURA, TANESCO, ZSFC, VPO, CTI & TCCIA, MEM
			3. Initiate a programme for the promotion of efficient use of biomass energy.	MEM, TaTEDO, R&D Institutions
			4. Promote the adoption of other forms of renewable energy systems including wind, solar etc.	MEM, NGOs,





Regional priority areas	National priorities	Programmes & Activities	Specific actions/activities for sustainable consumption and production	Responsible/lead institution(s)
<b>Habitat &amp; Sustainable Urban development</b>	1. Ensuring availability & access to land for human settlements development 2. Planning and revision of inflexible and unaffordable building regulations and standards to give room for use of innovation and technology 3. Provision of infrastructure and improvement of social services for sustainable human settlement development. 4. Upgrading of unplanned and unserviced human settlement 5. Environmental management	a) Ensuring that serviced and surveyed land is available to all income groups including estate developers on cost recovery basis; b) Streamlining of procedures for getting legal rights of occupancy with the aim of shortening it; c) Reviewing building and construction standards so that they become functional and performance based; d) Accelerating timely issuance of building permits; e) Facilitating the establishment and operation of swift, safe and efficient transport systems in urban areas; f) Improving solid and liquid waste management in urban areas; g) Encouraging the use of alternative, affordable and appropriate sources of energy; h) Instituting mechanisms for monitoring air pollution levels in urban centres.	1. Introduction of Eco-park concept in urban development planning.	CPCT, MITM, LGAs, NEMC, MoI, MoW, MEM
			2. Develop and implement an Integrated Solid Waste Management (ISWM) programme based on the three <b>R</b> principles ( <i>Reduce, Reuse and Recycle</i> )	LGAs, NEMC, CPCT, CBOs & NGOs
			3. Introduce eco-design concepts in the building and construction industry	CPCT, MoI, NHBRA, NCC
			4. Monitor and evaluate urban air pollution due to vehicular emissions.	NEMC, GCLA, TBS





Regional priority areas	National priorities	Programmes & Activities	Specific actions/activities for sustainable consumption and production	Responsible/lead institution(s)
<b>Industrial Development</b>	<p>1. Contribution to human development and creation of employment opportunities</p> <p>2. Economic transformation for achieving sustainable economic growth</p> <p>3. Contribution to external balance of trade</p> <p>4. Promotion of Sound Environmental Management in Industries</p> <p>5. Promoting entrepreneurship development through facilitating improved access of SMEs to financial and non-financial services.</p> <p>6. Ensuring that environmental considerations are given due emphasis in all SME development interventions</p>	<p>i) Carrying out sensitization on environmental awareness in its broader application in relation to people, land, water and air.</p> <p>ii) Promoting the continuous application of an integrated preventive environmental strategy to industrial processes, products and services which includes propagating efficient use of raw materials and energy.</p> <p>iii) Enhancing application of cleaner production concept as a complement to end-of-pipe pollution control.</p> <p>iv) Inculcate values and attitudes that are conducive to entrepreneurship development through education, training and other programmes</p> <p>v) Facilitate capacity building in entrepreneurship development</p> <p>vi) Facilitate creation of awareness on environmental issues to SMEs and their service providers;</p> <p>vii) Facilitate simplification of environmental impact assessment procedures,</p> <p>viii) Encourage proper waste management including recycling techniques</p> <p>ix) Facilitate adoption of technologies which apply renewable energy.</p>	1. Initiate a programme for sustainable consumption and production in industrial enterprises including SMEs	CPCT, MITM, TIRDO, TaTEDO
			2. Develop and implement a programme on sustainable tourism to enhance its contribution to the economy and reduce its adverse impact to the environment.	MoNRT, CPCT, TTB
			3. Initiate and pursue an eco-labelling programme for industrial and agricultural products meant for the export market.	MITM, MAFS, TBS, CPCT, TZ organic food producers.
			4. Develop and implement a programme on sustainable manufacturing focusing on sustainable resource consumption in the sector to reduce its adverse impact to the environment and enhance its productivity	CPCT, MITM, NEMC, CTI, TCCIA, OSHA, TBS
			5. Implement a programme on Sustainable Agriculture	Renewable Energy Institutions; R&D institutions; MAFS; TZ organic food producers



#### 4. PILOT ACTIVITIES FOR THE PROMOTION OF SUSTAINABLE CONSUMPTION AND PRODUCTION

Pilot activities for the promotion of sustainable consumption and production were selected on the bases of relevance to national needs; potential to provide synergy to existing initiatives; relevance to SCP programme of the Africa region; potential to deliver quick impacts with multiplier effects; existence of capacity to implement within existing infrastructure; and more importantly being part of the global process supported by donor communities. In this context the lead countries for the existing Marrakech Task Forces are of particular relevance as potential donors for selected pilot activities. These task forces are part of the Marrakech process to promote progress of the ten year framework programme on Sustainable Consumption and Production. The existing task forces with the lead countries in brackets are in the areas of: Cooperation with Africa (Germany); Sustainable Products (United Kingdom); Sustainable Public Procurement (Switzerland); Sustainable Tourism (France); Sustainable Buildings and Construction (Finland); Education for Sustainable Consumption (Italy); and Sustainable Lifestyles (Sweden).

Basing on the four thematic areas of the African 10-Year Programme on Sustainable Consumption and Production, a total of seven pilot activities have been proposed including one on education which is an indispensable component of the other pilot activities:

- i) **Thematic Area I: Energy**  
*Pilot Activity:* Demand-side Management on Energy Use
- ii) **Thematic Area II: Water and Sanitation**  
*Pilot Activity:* Demand-Side Management on Water Use and Water Harvesting
- iii) **Thematic Area III: Habitat and Sustainable Urban Development**  
*Pilot Activity A:* Integrated Solid Waste Management Programme  
*Pilot Activity B:* Sustainable Building and Construction  
*Pilot Activity C:* Cleaner City-Vehicle Emissions
- iv) **Thematic Area IV: Industrial Development**  
*Pilot Activity A:* Sustainable Manufacturing  
*Pilot Activity B:* Sustainable Tourism  
*Pilot Activity C:* Sustainable Agriculture
- v) **Cross-cutting Area:** Education for Sustainable Consumption



The matrix shown in **Table 4** provides a profile for the proposed pilot activities for the promotion of sustainable consumption and production in Tanzania. It defines the objective of the activity to be undertaken, specific activities, results/outcomes and targeted groups/sectors.

**Table 4: Profile of pilot activities for the promotion of sustainable consumption and production**

Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Demand-side management programme on energy use</b>	To promote energy efficiency and conservation in residential houses and service enterprises	<ul style="list-style-type: none"> <li>• Identify the key areas which have significant energy loss;</li> <li>• Develop the major steps and practices that need to be adopted to address the inefficiency points;</li> <li>• Conduct public awareness and education programmes to promote energy efficient use and practices;</li> <li>• Provide targeted facility and technical support to communities and entities that have high potential saving.</li> <li>• Promote use of safe fuel specifications,</li> <li>• Promote efficient boiler design in industrial applications/operations and develop code of conduct for boiler operations</li> </ul>	<ul style="list-style-type: none"> <li>• Increased ability of providing electricity to more people with the available capacity;</li> <li>• Household and business benefit from reduction of electricity bill;</li> <li>• Reduction of green house gas from supplementary diesel-based generation;</li> <li>• Increased use of renewable energies;</li> <li>• Reduction on the emissions of sulphur dioxide and lead plus their associated health impact;</li> <li>• Reduction in boiler operation cost as well as in energy utilization and emission.</li> </ul>	<ul style="list-style-type: none"> <li>• Municipality and the public sector;</li> <li>• Hotels and related service industries;</li> <li>• Manufacturing industries and SMEs;</li> <li>• Residential areas</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Education for sustainable consumption and production</b>	To develop a new culture of consumption and production that is sustainable	<ul style="list-style-type: none"><li>• Develop locally adopted education materials on sustainable consumption and production;</li><li>• Disseminate the education materials with a primary target on primary and secondary school students;</li><li>• Facilitate establishment of sustainable consumption and production clubs in schools, wards, streets, villages and <i>vitongoji</i>;</li><li>• Promote general public awareness through media programmes and public events.</li><li>• Integrate SCP in School Curricular</li></ul>	<ul style="list-style-type: none"><li>• Increased public awareness about sustainable consumption and production;</li><li>• Creation of a new generation that could serve as change agent within the society;</li><li>• Development of a sustainable consumption and production culture.</li></ul>	<ul style="list-style-type: none"><li>• Primary and secondary schools;</li><li>• Media professionals;</li><li>• General public, peer and pressure groups.</li></ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Integrated Solid Waste Management Programme</b>	To address the growing problem of waste management on an integrated basis that results in environmental and socio-economic benefits	<ul style="list-style-type: none"> <li>• Conduct the characterization of waste streams with a focus on identifying the potential for reduction, recycling and reuse;</li> <li>• Promote segregation of waste at the source and waste-to-resource conversion activities including composting;</li> <li>• Promote an integrated mechanism for the effective collection and transfer of waste;</li> <li>• Promote the appropriate waste treatment and disposal method including non combustible treatment methods and incineration for hazardous waste;</li> <li>• Promote effective and efficient hospital waste incineration design practices,</li> <li>• Develop code of conduct for hospital waste incineration</li> <li>• Conduct public awareness and education on the '3-R' principles;</li> <li>• Review legislations, put in place a national policy on solid waste management (SWM) and enforce tax waive for SWM facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Improved awareness about waste generation and its impacts;</li> <li>• Adoption of integrated waste management by local authorities;</li> <li>• Improved health and sanitation condition;</li> <li>• Creation of employment and income generation for local communities;</li> <li>• Encouragement of organic farming;</li> <li>• Increased life-span of existing land fills;</li> <li>• Reduction in emission of toxic pollutants,</li> <li>• Enhanced capacity in managing hospital waste.</li> </ul>	<ul style="list-style-type: none"> <li>• Government agencies</li> <li>• Local authorities</li> <li>• Households</li> <li>• SMEs and businesses</li> <li>• Service institutions</li> <li>• Recycling companies</li> <li>• CBOs &amp; NGOs</li> <li>• Waste handlers</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Sustainable Manufacturing Programme</b>	To enhance the efficiency of resource consumption in the manufacturing sector so as to minimize adverse environmental impacts and increase productivity	<ul style="list-style-type: none"> <li>• Carry out Cleaner Production Assessments in industries in different sectors;</li> <li>• Prepare industry specific Environmental Management Plans;</li> <li>• Develop/adopt a code of conduct that could be abided by the industry;</li> <li>• Promote labelling and recognition mechanisms that recognizes continuous improvement by the manufacturing industry;</li> <li>• Promote product Life cycle Assessment in the sector;</li> <li>• Establish a National Industrial Pollution Profile;</li> <li>• Promote ISO- certification in the sector industries (ISO 9001:2000, ISO 14001:2004, OHSAS 18001)</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement of industry image to the public and consumers in general;</li> <li>• Reduction of environmental pollution and degradation;</li> <li>• Savings realized by industry due to improved productivity;</li> <li>• Increased awareness on LCA among industrialists</li> <li>• Extended/enhanced local and export market share/opportunity</li> </ul>	<ul style="list-style-type: none"> <li>• Small &amp; Medium scale Enterprises;</li> <li>• Industry associations</li> <li>• Informal sector</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Sustainable Tourism programme</b>	To enhance the national benefits to be obtained from the development of the Tourism sector on a sustainable basis	<ul style="list-style-type: none"> <li>• Identify the key issues and hot spots related to the sector;</li> <li>• Build upon the work of existing initiatives including the Tour Operator's Initiative;</li> <li>• Conduct training and education on sustainable tourism practices and approaches targeting both operators and tourists;</li> <li>• Develop/adopt a code of conduct that could be abided by the industry;</li> <li>• Promote labelling and recognition mechanisms that recognizes continuous improvement;</li> <li>• Promote sustainable building and design in the sector;</li> <li>• Collaborate with the Marrakech Taskforce on Sustainable Tourism.</li> <li>• Promote service provided to tourists</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement in the general awareness of the public and sector operators;</li> <li>• Reduction of environmental pollution and degradation;</li> <li>• Improved profile of the tourism sector which leads to national economic benefit;</li> <li>• Possibilities of new business development including community-based businesses.</li> </ul>	<ul style="list-style-type: none"> <li>• Tour Operators</li> <li>• Sectoral associations</li> <li>• Government agencies responsible for the sector;</li> <li>• Tourists</li> <li>• Local communities</li> <li>• Tour Guides</li> <li>• Hoteliers</li> <li>• Air Service Companies</li> </ul>





Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Programme on Sustainable Agriculture</b>	To promote sustainable agriculture	<ul style="list-style-type: none"> <li>• Identify key areas which have significant environmental impacts,</li> <li>• Develop major steps that need to be adopted to address the impacts</li> <li>• Enhance extension services</li> <li>• Encourage organic farming</li> <li>• Promote value addition for agricultural products and by-products</li> <li>• Assess and identify best practices for energy efficiency and renewable energy technologies in agriculture;</li> <li>• Promote financial mechanisms and capacity building for peasant communities to enable adoption of renewable energy technologies;</li> <li>• Promote innovative links between peasant communities and donors, technology providers to enhance access to renewable energy technologies;</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of impacts on the environment;</li> <li>• Reduction of eutrophication;</li> <li>• Efficiency utilisation of inputs and other resources improved;</li> <li>• Increased productivity and lower energy costs;</li> <li>• Increased use of renewable energy technologies in agricultural sector;</li> <li>• Increased availability of micro-credit financing for agricultural inputs;</li> <li>• Increased incomes and savings in agricultural activities;</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural communities</li> <li>• Agriculture Extension Officers</li> <li>• Renewable Energy Institutions;</li> <li>• R&amp;D institutions</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Demand- side management on water uses and water harvesting</b>	To improve the availability of water and promote efficient utilization of water	<ul style="list-style-type: none"> <li>• Identify the key areas which have significant water loss &amp; water wastage;</li> <li>• Develop the major steps and practices that need to be adopted to address the inefficiency points;</li> <li>• Conduct public awareness and education programmes to promote efficient use and practices;</li> <li>• Encourage institutions and households to collect rain water for domestic utility;</li> <li>• Promote water pricing that encourages efficient water use;</li> <li>• Promotion of community-managed water supply systems to act as watch dog on vandalism;</li> <li>• Promote the use of recycled water for irrigation after treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved awareness about water as important resource;</li> <li>• Increased ability of providing water to more people with the available capacity;</li> <li>• Household and business benefit from reduction of water consumption;</li> <li>• Possibility for avoiding water scarcity and stress;</li> </ul>	<ul style="list-style-type: none"> <li>• Local government and water utility companies;</li> <li>• Hotels and related service industries;</li> <li>• Manufacturing industries and SMEs;</li> <li>• Residential areas and local communities</li> <li>• Schools</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>Cleaner Vehicular Emissions in cities</b>	To reduce emissions from use of vehicles in Cities	<ul style="list-style-type: none"> <li>• Conduct sample surveys on main trends in urban transportation systems e.g. number of vehicles, types and makes, movement patterns – rush hours etc.;</li> <li>• Identify and prioritize list of options to address problems of traffic congestion and to limit resulting air-pollution;</li> <li>• Promote use of alternative fuel systems such as natural gas or biofuels;</li> <li>• Promote use of cleaner fuel specifications;</li> <li>• Promote use of catalytic converters</li> <li>• Establish incentives for positive behaviour such as use of cleaner fuels, catalytic converters etc.;</li> <li>• Enhance management of traffic congestion</li> <li>• Introduce standards and regular car inspection system;</li> <li>• Encourage use of public transport services against use of private cars;</li> <li>• Monitor and evaluate urban air pollution due to vehicular emission.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction on air emissions and pollution,</li> <li>• Increased efficiency of transport services</li> <li>• Health benefits from improved air quality</li> </ul>	<ul style="list-style-type: none"> <li>• City Councils</li> <li>• Urban Populations</li> <li>• Municipalities</li> <li>• Public Transporters</li> <li>• Vehicle owners</li> </ul>



Pilot activity	Objective	Activities	Results/Outcomes	Target groups/sectors
<b>A programme on sustainable building and construction</b>	To ensure the development of the building and construction sector on a sustainable basis	<ul style="list-style-type: none"> <li>• Identify locally available knowledge on sustainable building and promote their replication;</li> <li>• Promote the introduction of sustainable building and construction principles and approaches in institutions of higher learning curriculum;</li> <li>• Conduct on-job training for practicing engineers and designers both in private and public institutions;</li> <li>• Promote resource efficient building materials through public procurement and infrastructure developers;</li> <li>• Collaboration with the Taskforce on SBC and the Sustainable Building and Construction Initiative;</li> <li>• Promote use of safe construction materials;</li> <li>• Enhance vertical and horizontal institutional linkages in working practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved resource efficiency over the life cycle of a building;</li> <li>• Health benefits from improved in-house conditions;</li> <li>• Engineers and designers with improved skills and knowledge about SBC;</li> <li>• Possible economic savings and benefits;</li> <li>• Reduction in generation of hazardous waste.</li> </ul>	<ul style="list-style-type: none"> <li>• Universities and R &amp; D Institutions</li> <li>• Professional association of Architects, Engineers, etc;</li> <li>• Construction sector</li> <li>• Regulatory institutions;</li> </ul>



## 5. IMPLEMENTATION AND MONITORING

The implementation of the proposed pilot activities will involve the following:

- i) Identification of implementing institutions- this will require consultations and dialogues with identified institutions,
- ii) Identification of possible sources of funding. Possible sources include National sources such as Annual Budgets, Bilateral/Development Agencies, Small Grant Programmes etc.

**Table 5** elaborates the implementation mechanism for each activity by identifying implementing institutions, the verifiable indicators to facilitate the monitoring process and possible sources of funds. The verifiable indicators given are measurable and therefore can provide performance achievements.



Table 5: Implementation and monitoring mechanisms for the pilot activities

Pilot activity	Implementing institutions	Verifiable indicators	Possible source of funding
<b>Demand-side Management Programme on Energy Use</b>	MEM, EWURA, TANESCO, CPCT, MITM, VPO-DOE, R&D institutions and ZSFC	<ul style="list-style-type: none"> <li>• Number of institutions and households covered by the programme;</li> <li>• Total KWh of electricity saved;</li> <li>• The economic saving per household and institutions.</li> <li>• Number of fuel specifications adopted,</li> <li>• Number of industries having efficient boiler design and practicing code of conduct</li> </ul>	<ul style="list-style-type: none"> <li>• Local/National</li> <li>• Bilateral/Development Agencies</li> <li>• Multilateral/international</li> <li>• Small Grant Programmes</li> </ul>
<b>Education for Sustainable Consumption and Production</b>	CAMARTEC, MEM, NGOs, TaTEDO, MoEVT, Training Institutions, CPCT and MoEVC	<ul style="list-style-type: none"> <li>• Number of students and public reached by the programme;</li> <li>• Number of SCP clubs established;</li> <li>• SCP-related initiatives undertaken;</li> </ul>	<ul style="list-style-type: none"> <li>• Local/National</li> <li>• Bilateral/Development Agencies</li> <li>• Small Grant Programmes</li> </ul>
<b>Integrated Solid Waste Management Programme</b>	LGAs, CBOs, NGOs, NEMC, CPCT, MoHSW, NEMC and DoE-ZNZ	<ul style="list-style-type: none"> <li>• The volume of waste taken out of the stream</li> <li>• The value made out of recycling and reusing waste;</li> <li>• The number of employments generated through recycling;</li> <li>• The number of cases/fines for littering and pollution;</li> <li>• The number of reported medical cases related to environmental hygiene;</li> <li>• The number of people reached through the awareness programme;</li> <li>• The number of hospitals having effective and efficient incinerators and practicing the code of conduct.</li> </ul>	<ul style="list-style-type: none"> <li>• Local /National</li> <li>• Small Grant Programmes</li> <li>• Bilateral/Development Agencies</li> </ul>



Pilot activity	Implementing institutions	Verifiable indicators	Possible source of funding
<b>Demand- Side Management on Water uses and Rain Water Harvesting</b>	MoW, EWURA, LGAs, CPCT, NGOs, CBOs CAMARTEC, Selected Water Basin Office and ZWA, NRWSSP, CWSSP	<ul style="list-style-type: none"> <li>• Number of institutions and households covered by the programme;</li> <li>• Total water volume saved and collected through harvesting;</li> <li>• The economic saving per household and institutions;</li> <li>• Volume of recycled water reused for different purposes;</li> </ul>	<ul style="list-style-type: none"> <li>• Local/ National</li> <li>• Small Grants</li> </ul>
<b>A programme on Sustainable Building and Construction</b>	AU, LGAs, CRB ERB, AQRB, NCC, DIT, UDSM, KTC and DoC.	<ul style="list-style-type: none"> <li>• Number of graduates with sufficient knowledge on SBC;</li> <li>• Number of professionals participated in the on-job training;</li> <li>• Number of locally available knowledge and practices identified and promoted;</li> <li>• Total volume of savings on resource over a life cycle of building;</li> <li>• The number of dwellers in slums;</li> </ul>	<ul style="list-style-type: none"> <li>• Local/ National</li> <li>• Small Grants</li> </ul>
<b>Programme on Sustainable Agriculture</b>	Peasants, Agricultural Research Institutions, Agricultural Extension Officers, NGOs, CBOs, MAFS	<ul style="list-style-type: none"> <li>• Number of farmers/peasants sensitized and trained,</li> <li>• Use of chemical agricultural inputs reduced,</li> <li>• Level of Eutrophication reduced,</li> <li>• Reduced loss of soil fertility,</li> <li>• Improvement in yields per unit area</li> <li>• Number of renewable energy technologies adopted by agricultural communities</li> <li>• Number of financing programmes for adoption of renewable technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Local/National</li> <li>• Small Grants programme</li> <li>• Bilateral/Development Agencies</li> <li>• Multilateral/international</li> </ul>



Pilot activity	Implementing institutions	Verifiable indicators	Possible source of funding
<b>Sustainable Manufacturing Programme</b>	CPCT, MITM, NEMC, CTI, TCCIA, OSHA, TBS, VPO-DOE, R&D institutions	<ul style="list-style-type: none"> <li>• Number of industries assessed;</li> <li>• Number of Cleaner Production Options generated;</li> <li>• The amount of savings on resource-use realized from implementation of CP options;</li> <li>• Increase in productivity or reduced quantity of resource used per unit output</li> <li>• Number of industries that will have developed Environment Management Plans;</li> <li>• Number of industries recognized as cleaner performers or champions;</li> <li>• Number of industries adopting certifiable Environment Management Systems (ISO 9001:2000, ISO 14001:2004, OHSAS 18001)</li> <li>• Number of industries committed to LCA approach;</li> <li>• Number of ISO-certified industries.</li> </ul>	<ul style="list-style-type: none"> <li>• Local/National</li> <li>• Bilateral/Development agencies</li> <li>• Small Grant programmes</li> </ul>
<b>Sustainable Tourism Programme</b>	MNRT, TTB, CPCT Tour Operators, VPO-DoE, LGAs, CBOs, NGOs, DoE, CT, ZIPA and ZATI	<ul style="list-style-type: none"> <li>• Number of operators signed-up for the code of conduct;</li> <li>• The amount of savings (energy, water) realized from improvement programmes;</li> <li>• Number of operators recognized as champions;</li> <li>• Results of survey on the perception of the destination by tourists;</li> </ul>	<ul style="list-style-type: none"> <li>• Local/ National</li> <li>• Bilateral/Development agencies</li> </ul>





<b>Pilot activity</b>	<b>Implementing institutions</b>	<b>Verifiable indicators</b>	<b>Possible source of funding</b>
<b>Programme on Cleaner Vehicular Emissions</b>	City Councils, Municipalities, Transporters, Commuter Operators	<ul style="list-style-type: none"><li>• Pollution levels reduced</li><li>• Improved air quality</li><li>• Increased efficiency of transport services</li><li>• Improved health of people</li><li>• Economic out-put improved due to transport efficiency</li><li>• Ease of movement of traffic in target urban areas</li></ul>	<ul style="list-style-type: none"><li>• Local/National</li><li>• Bilateral/Development Agencies</li><li>• Small Grants</li><li>• Multilateral/international</li></ul>



## **6. ANNEX: CONCEPT NOTES ON SELECTED PILOT ACTIVITIES**



## PROJECT CONCEPT NOTE 1

### *Demand-Side Management Programme on Energy Use*

#### **1. BACKGROUND**

The Government envisages energy as a critical input necessary for the achievement of overall development goals. Tanzania's energy consumption patterns are characterized by high dependence on biomass-based energy sources in the form of fuelwood and charcoal which account for approximately 91% of supply. The balance is made up of petroleum-based products at around 6.5%, hydropower at 1.1% and gas and coal at 1.4%. More than 77% of the energy goes for residential consumption.

The heavy dependence on fuelwood and charcoal biomass is an unsustainable situation with long-term consequences on the environment in the areas where most of these products are harvested.

Electricity supply is mainly from hydropower with thermal sources (gas and diesel) playing an increasingly important role especially during periods of drought and peak loads. The shortages caused during the dry seasons have led to the concerted Government efforts to promote energy efficiency and management practices as a means to reduce unnecessary consumption and save on energy resources.

#### **2. OBJECTIVES**

##### **2.1 National Objectives**

To have in place an efficient and environmentally sound production, procurement, transportation, distribution and end-use energy system.

##### **2.2 SCP Objectives**

The objectives of the SCP interventions are to introduce and promote demand-side management measures through energy efficiency and conservation within the service and residential sectors



### 3. ACTIVITIES AND DURATION

A wide range of activities have been considered in looking at potential energy efficiency and energy conservation measures. However, the activities proposed below have been selected due to their appropriateness as well as the level of complementarities that they bring to on-going national efforts and activities:

- a) Baseline survey to identify key areas with significant energy losses;
- b) Identify and develop major initiatives and practices to be adopted in order to rectify energy inefficiency problems;
- c) Conduct public awareness and educational programmes to promote energy efficient use and conservation practices in residential and service sectors.
- d) Promotion of procurement of energy efficient appliances including energy efficient light bulbs and appliances (equipment with energy star and energy saver labels)
- e) Production of simple manuals for schools and other institutions on basic housekeeping measures to conserve energy and improve energy efficiency; Production of posters and other handouts
- f) Provide targeted facility and technical support to communities and entities that have high potential saving such as establishing two or three pilot projects within a school or public institution to practically demonstrate the energy efficiency benefits and also achieve wider impact.

The duration of the programme is for ten years in accordance with the duration of the framework programme.

### 4. INPUTS

In terms of Expertise, inputs into the project will consist of International Consultants and National Experts for SCP activities, Energy efficiency and conservation issues. A core team will be constituted which will run project activities in a phased approach. The Cleaner Production Centre, which is responsible for coordination of the different pilot activities, will also coordinate other inputs such as transport, communications, office facilities etc. through a system of pooled resources.

### 5. OUTCOME

- a) Increased awareness and application by communities of energy efficiency measures.
- b) Increased ability to service more electricity customers within the available capacity
- c) Reduction of electricity bills for both business and residential consumers.
- d) Reduction of greenhouse gas emissions from supplementary diesel-based generation



- e) The pilot activity is expected to lead to the development of a national SCP programme for energy efficiency

## **6. TARGET GROUPS**

Local residents in areas with significant energy losses, hotels and related service industries, municipality and public sector institutions including hospitals, schools, manufacturing industries and SMEs will all benefit from the programme in terms of cost reduction and energy savings.

## **7. VERIFIABLE INDICATORS**

- a) The number of institutions and households covered by the programme
- b) Total KWh of electricity saved through implementing measures;
- c) Economic saving per household and institution
- d) Number of energy efficient appliances purchased by general public

## **8. PROJECT MANAGEMENT**

The Cleaner Production Centre of Tanzania will coordinate the SCP programme for energy working in close collaboration with key actors from the Ministry for Energy and Minerals, EWURA, TANESCO, MITM, CTI and TCCIA.



## PROJECT CONCEPT NOTE 2

### *Demand-Side Management on Water Use and Water Harvesting*

#### 1. BACKGROUND

Significant challenges face populations and government authorities in enabling access to safe water as well as in its efficient utilization. Tanzania is endowed with a numerous water bodies including lakes, seasonal rivers and tributaries that have very low flow rates during the dry season of the year with tendencies for flooding during the wet season.

This cycle repeats itself with increasingly adverse effects due to continued depletion of vegetative cover in catchment areas and along the banks of rivers and streams.

Most of the population lives in the rural areas with a lower percentage of persons living in urban areas. The urban centers contain a mix of developed and undeveloped areas which have limited access to water supply and services.

The Government has set various targets for the water sector within the framework of the National Water Sector Strategy and policy as well as in the National Strategy for Growth and Reduction of Poverty. In summary the targets aim at increasing access levels to clean and safe water from 53% and 73% in 2003 to 65% and 90% respectively in 2009 for Rural and Urban populations.

#### 2. OBJECTIVES

##### 2.1 National Objectives

The main objective in the National Water Sector Strategy is to provide adequate, clean and safe-water for socio-economic development activities to the majority of the Tanzanian population living in rural and urban areas. The medium term objectives are spelled out in the national Water Sector strategy which envisages increasing levels of service from 65 to 90% in urban areas and from 53 to 73% in rural areas by 2009.



## 2.2 SCP Objectives

Realizing that the above targets involve putting up large investments for setting up additional infrastructure as well as for the overhauling/revamping of the current delivery systems, SCP objectives are intended to complement the above efforts by improving and increasing the availability of existing water resources through demand-side management of the available water resources. This will be achieved through the promotion of efficient water utilization and conservation measures.

## 3. ACTIVITIES AND DURATION

Amongst the various components of SCP interventions that have been discussed at various fora within the ARSCP, a few core activities have been singled out here as being relevant interventions within the SCP context. These are as follows:

- a) Preliminary survey to identify key areas with significant water losses.
- b) Identify and development of the major steps to be undertaken to address the existing inefficiencies.
- c) Conduct public awareness campaigns and educational programmes to promote efficient water use and best practices. Special efforts will be directed to the involvement of local urban and village communities as well as schools and local urban and village communities, in order to achieve maximum impact and sustainability.
- d) Institutions, schools and households will be encouraged to collect and store rainwater for domestic utility as well as recycle water for irrigation and gardening. Token awards can be presented in recognition of outstanding efforts.
- e) Promotion of community-managed water supply systems and formation of local monitoring and management committees to enhance ownership and contribution to community projects.
- f) The project will explore the possibility of establishing two or three pilot activities to practically demonstrate techniques and also to encourage wider community participation.

The pilot activity will have duration of 18 months.



#### 4. INPUTS

In terms of Expertise, inputs into the project will consist of International Consultants and National Experts on SCP activities as well as Experts on Water resources management and utilization. A core team will be constituted which will run project activities in a phased approach. Additional inputs for all pilot activities will be made available through a pool to be coordinated by the Cleaner Production Centre.

#### 5. OUTCOME

- a) A brief baseline report giving highlights of the areas in which significant water losses are occurring.
- b) The interventions should result in increased levels of awareness amongst the targeted communities on SCP issues and the importance of using water more effectively.
- c) A direct outcome is in the increased ability to provide water to more people within the available supply capacity.
- d) Increased possibility to lower costs for water bills and service due to increased numbers of customers.
- e) Avoidance of water scarcity and stress during low season.
- f) Another direct outcome of the pilot activity will be the development of a national SCP programme on demand-side management for water.

#### 6. TARGET GROUPS

Local Governments and service providers will benefit from better revenues, whilst local communities, Schools and Public Institutions in target areas will benefit from increased availability of water supplies.

#### 7. VERIFIABLE INDICATORS

Performance indicators to be used include:

- The number of institutions and households to be covered by the programme;
- Total volumes of water saved and collected through harvesting;
- Economic savings on a per household and institution basis
- Volume of recycled water used for different purposes.
- Reduction in the rate of vandalism





## **8. PROJECT MANAGEMENT AND COORDINATION**

The Cleaner Production Centre of Tanzania is central in its role for coordination of SCP activities within the country. Management supporting roles will be provided by the Ministry of Water, EWURA, Ministry of Industry, Trade and Marketing, Local Government Authorities, NGOs and CBOs in the respective target areas.



## PROJECT CONCEPT NOTE 3

### *Integrated Solid Waste Management*

#### 1. BACKGROUND

In general, Tanzania is faced with the same challenges that face other African countries in the area of solid waste management. Rapidly growing and unplanned urban settlements provide a formidable challenge to the management of solid waste in urban areas.

Although organic fractions make up the largest composition in the solid waste stream, it is the plastics that are considered to be most problematic. In particular plastic bags are considered to be a great nuisance, as they easily clutter up beaches, streets, gutters and often are the cause of death for livestock who happen to ingest them.

In African countries including Tanzania, the plastics industry is rapidly expanding with packaging products for households, containers, bottling, piping and bags.

This growth has significant impact on the environment as society adapts itself to more and more plastics packaging of products. Since plastics are mostly non-biodegradable, they tend to remain conspicuous in the environment for long periods of time.

Governments have taken various steps to try to arrest the problems before they become out of hand. Some of the steps have included placing a ban on local production of film plastic of thickness less than 30 microns.

#### 2. OBJECTIVES

##### 2.1 National Objectives

The Government has placed a ban on local production of thin-film plastics used for making flimsy plastic bags in order to halt further degradation to the environment caused by the rapid spread of used plastic bag litter.



## 2.2. SCP Objectives

The objective of the SCP interventions are to address the growing problems of solid waste management in an integrated manner which will results in environmental as well as socio-economic benefits.

## 3. ACTIVITIES AND DURATION

The activities listed below will help to complement previous and on-going efforts aimed at addressing some of the key issues in solid waste management.

- a) Establish baselines for characterization of current waste streams in order to identify potential for reduction, reuse and recycling activities.
- b) Promote segregation of waste at source and waste-to-resource conversion activities including composting and production of biogas from organic waste fractions as well as recycling of plastics.
- c) Promote integrated mechanism for effective collection and transfer of waste.
- d) Promote appropriate disposal methods including proper handling of hazardous waste.
- e) Promote public awareness on the 3-R principle (Reduce, Reuse and Recycle) through education and participation in community cleanup and pilot activities.
- f) Put in place a national solid waste management policy coupled with a tax waive on solid waste management facilities.

## 4. INPUTS

Expert inputs into the project will consist of International Consultants and National Experts for SCP activities, Solid Waste and Environmental management experts, Experts on Biogas production, composting and in Plastics recycling. A core team will be constituted which will run project activities through a phased approach. Additional inputs for the pilot activities will be made available from a pool of resources to be managed and coordinated by the Cleaner Production Centre.

## 5. OUTCOMES

- a) Improved awareness on waste generation and its impacts on the environment and society
- b) Adoption of integrated approaches to solid waste management by local authorities and communities



- c) Improved health and sanitation conditions including changes in waste disposal practices by communities;
- d) Creation of sustainable income and employment generation opportunities for communities as a result of ownership of solid waste management cycle;
- e) Increase in organic farming practices;
- f) Increased life-spans and better management for existing dumpsites,
- g) Development of a national SCP programme from the pilot.

## **6. TARGET GROUPS**

Target groups consist of local Government authorities, communities and households, SMEs and businesses, Service institutions, Recycling enterprises, NGOs, CBOs and Waste handlers.

## **7. VERIFIABLE INDICATORS**

- a) Volume of waste taken out of the stream
- b) Extent of value addition activities in recycling and reuse of waste
- c) Levels of employment generated in recycling/reuse sector

## **8. PROJECT MANAGEMENT**

The Cleaner Production Centre of Tanzania will coordinate the SCP programme for integrated solid waste management working in close collaboration with key actors from NEMC, LGAs, MITM, NGOs, CBOs and the recipient industries.



## PROJECT CONCEPT NOTE 4

### *Sustainable Manufacturing*

#### 1. BACKGROUND

The Tanzania economy is largely dependent on the low-productivity agricultural sector which accounts for approximately 45 percent of the GDP. Other contributors to the GDP include Trade and Tourism, which contributes around 17.5 percent, Financial and Business services at around 9.6 percent, Manufacturing at around 9 percent, Construction at around 5.8 percent and Transport and Communication at around 5.4 percent. The growth rate of the Manufacturing sector has remained around 8 to 9 percent for decades.

#### 2. OBJECTIVES

##### 2.1. National Objectives

National Industrial Development objectives are to transform the Tanzania economy from a largely agricultural-based economy to a semi-industrialised one by 2025, by rapidly increasing the industrial sector's overall contribution to GDP for the creation of employment opportunities and human development.

##### 2.2. SCP Objectives

SCP objectives seek to promote industrialization that is sustainable, utilizing raw materials and resources as well as managing processes in the most efficient and environmentally friendly manner.

#### 3. ACTIVITIES AND DURATION

SCP activities for sustainable manufacturing are as follows:

- a) Promoting the introduction and adoption of sustainable consumption and production approaches for groups of SMEs engaged in various production and processing activities.
- b) Promotion of the introduction of SCP principles and approaches in the curricula of higher learning institutions.
- c) Conduct on-the-job training, including presentation of case studies at workshops and seminars for production managers and personnel in industrial establishments.
- d) Promoting the introduction of eco-labelling practices for goods and services produced under SCP principles.



#### 4. INPUTS

Project inputs consist of international and national expertise in SCP, industrial processing and environment. Additional inputs for the pilot activities will be managed and coordinated by the Cleaner Production Centre of Tanzania through a system of pooled resources for the various pilots.

#### 5. OUTCOMES

- a) Improved general awareness of SME manufacturing sector on the need for integrating SCP approaches in their activities;
- b) Increased adoption of more efficient and environmentally friendly production techniques and processes by SMEs;
- c) Improved profile and cleaner environment in overall manufacturing sector leading to lower production and processing costs;
- d) Improved occupational health and safety in the manufacturing sector;
- e) Economic gains in manufacturing and processing due to reduced overall costs of production.

#### 6. TARGET GROUPS

Groups targeted by the programme include SMEs engaged in manufacturing and processing activities, the informal sector, Ministry of Industry, Trade and Marketing and local communities in the vicinity of production facilities.

#### 7. VERIFIABLE INDICATORS

- a) Number of SMEs in manufacturing sector participating in awareness/training programmes on SCP;
- b) Amount of savings in terms of resource and raw materials consumption (e.g. energy, water) realized in industrial SME units and informal sector through introduction of SCP practices;
- c) Number of waste minimization and recycling programmes initiated by SMEs in industrial sector;
- d) Reduction in the number of incidences related to occupational health and safety;
- e) Reduction in medical expenses resulting from improved work environment.
- f) Reduced pollution level especially from gaseous emissions of CO<sub>x</sub>, NO<sub>x</sub> and SO<sub>x</sub>.



## 8. PROJECT MANAGEMENT

The Cleaner Production Centre of Tanzania will retain the coordination role for the activity in close collaboration with the Ministry of Industry, Trade and Marketing, Industry Sector Associations such as CTI and TCCIA, the Environment Division of the Vice President's Office, TBS and NEMC.



## PROJECT CONCEPT NOTE 5

### *Sustainable Tourism*

#### 1. BACKGROUND

The Tourism sector in Tanzania has vast potential and presents a lot of additional investment opportunities. The overall sector is growing fast with rapid expansion in the areas of cultural tourism, beach holidays, game hunting, historical and archaeological ventures and the famous wildlife safaris. The Government intends to develop the necessary infrastructure and provide efficient transport and communications in order to enable the proper exploitation of the potential in the sector. Against this background, however, are the concerns about the effects of rapid expansion on the environment and natural habitats of wildlife, flora and local communities such as those that live in areas adjacent to wildlife reserves or fishing village communities along the Tanzanian coastline.

#### 2. OBJECTIVES

##### 2.1. National Objectives

National objectives are to enable the development of sustainable and quality tourism that is culturally and socially acceptable and contributing significantly to the economic development of the country.

##### 2.2. SCP Objectives

SCP objectives aim to enhance the national benefits obtained from the development of the Tourism industry sector on a sustainable basis.

#### 3. ACTIVITIES AND DURATION

Key SCP activities within the sustainable tourism programme are as follows:

- a) Preliminary identification of the hot spots related to the Tourism sector.
- b) Conduct training on Sustainable tourism practice and approaches targeting operators as well as tourists.
- c) Develop and adopt a code of conduct that could be abided to by the industry.
- d) Promote labeling and recognition mechanisms for continuous improvement.
- e) Promote sustainable building and design in the sector.





#### **4. INPUTS**

Project inputs consist of International and National Expertise in SCP, Tourism Industry and Environment and Wildlife management; Additional inputs for the pilot activities will be managed and coordinated by the Cleaner Production Centre through a system of pooled resources for the various pilots.

#### **5. OUTCOMES**

- a) Improved general awareness of the public and tourism sector players on the need for integrating SCP approaches in their activities.
- b) Reduction or retardation of environmental pollution and degradation as well as destruction of natural habitats.
- c) Improved profile and perception of the tourism sector leading to enhanced economic benefits.
- d) Increased potential for participation of communities (urban and rural) in sustainable tourism activities.

#### **6. TARGET GROUPS**

Groups targeted by the programme include Tourism operators and Hotels, Ministry of Natural Resources and Tourism, the Tanzania Tourist Board, Tourists and local communities in the main tourist sites.

#### **7. VERIFIABLE INDICATORS**

- a) Number of operators signed up for established code of conduct.
- b) Amount of savings in terms of resources (e.g. energy, water) realized through improvement programmes.
- c) Number of operators recognized as champions.
- d) Results of surveys on perception of destination by tourists.

#### **8. PROJECT MANAGEMENT**

The Cleaner Production Centre of Tanzania will coordinate the activity in close collaboration with the Tanzania Tourist Board, the Ministry of Natural resources and Tourism , LGAs, Associations of Tourism operators and local communities. In addition, the project management will also seek to coordinate with the “Tour Operator’s initiative” and with the Marrakech Taskforce on Sustainable Tourism.



## PROJECT CONCEPT NOTE 6

### *Sustainable Buildings and Construction (SBC)*

#### **1. BACKGROUND**

The Government has placed priority on ensuring the availability of land for the development of human settlements to all people in Tanzania. A number of problems prevail with regard to human settlements including the fact that around 80 percent of the population live in houses that are of poor quality and are prone to damage from rain, wind and other weather effects. The other major problems in the area of settlements are related to the limited available infrastructure, large unplanned and unserviced human settlements as well as lack of affordable technologies and building materials such as doors, windows, roofing, walling and flooring. Tanzania has a lot of indigenous materials that could potentially be utilized by the construction industry to help bring costs down. However, these materials remain out of reach for the majority of Tanzanians due to their inhibitive costs and are part of the reason for the rapid growth of unplanned slum areas in most urban cities and towns.

#### **2. OBJECTIVES**

##### **2.1 National Objectives**

The Government aims to improve infrastructure and social services in order to develop sustainable human settlements. The Government also aims at upgrading unplanned and unserviced human settlement areas as well as ensuring proper management of the environment.

##### **2.2 SCP Objectives**

SCP objectives seek to ensure that the building and construction sector are developed on a sustainable basis.

#### **3. ACTIVITIES AND DURATION**

SCP activities for sustainable building and construction are as follows:

- e) Identifying and promoting replication of locally available knowledge and practices for sustainable building



- f) Promotion of the introduction of sustainable building and construction principles and approaches in the curricula of higher learning institutions.
- g) Conduct on-job training, workshops and seminars for practicing engineers and designers in private and public institutions.
- h) Promote resource efficient building materials through public procurement and infrastructure developers

#### **4. INPUTS**

Project inputs consist of International and National Expertise in SCP, in particular on building and construction materials, with emphasis on low-cost local materials; Project equipment consisting of project vehicles, office equipment including computers, photocopier, telephone and fax machines and internet services.

#### **5. OUTCOMES**

- a) Improved resource efficiency and use over the life cycle of buildings.
- b) Health benefits from improved housing conditions.
- c) Improved skills and knowledge among engineers, artisans and designers on SBC issues.
- d) Economic savings and benefits from SBC application.

#### **6. TARGET GROUPS**

Universities and R & D institutions; Professional associations of Architects and Engineers, Urban Planning Departments; Construction industry sector; Regulatory institutions.

#### **7. VERIFIABLE INDICATORS**

- a) Numbers of Graduates in Architecture and Construction/Civil Engineering with sufficient knowledge of Sustainable Buildings and Construction.
- b) Numbers of professionals participating in on-job training, workshops and seminars on Sustainable Buildings and Construction.
- c) Number of locally available practices identified and promoted through the Sustainable Buildings and Construction approach.
- d) Number of slum dwellers in urban centres.



## 8. PROJECT MANAGEMENT

The project will be coordinated by the Cleaner Production Centre of Tanzania in close collaboration with Ministry for Lands, Housing and Human Settlements Development, National Housing and Building Research Agency, LGAs, NEMC, International and National NGOs and CBOs for Habitats and Human Settlements. The project management will also seek to develop close collaboration and links with the Taskforce on SBC and the Sustainable Buildings and Construction Initiative.



## PROJECT CONCEPT NOTE 7

### *Education for Sustainable Consumption and Production*

#### **1. BACKGROUND**

There is wide consensus that Tanzania, like other developing countries, is facing increasing pressure on its resources due in part to climate change effects, increasing socio-economic activities and environment degradation of water catchment areas and forests. It is also clear that, countries like Tanzania are the most vulnerable when it comes to the effects of extreme weather including prolonged droughts and severe rainfall and flooding. The Government understands the urgency of creating awareness among its citizens on the concept of sustainable consumption and production.

#### **2. OBJECTIVES**

The main objectives of the exercise are to educate the general public and to develop a new culture that is sensitive to and able to practically apply the principles of sustainable consumption and production for the benefit of current and future generations.

#### **3. ACTIVITIES AND DURATION**

The activities to be undertaken are aimed at ensuring that the general public and, in particular, key players in sensitive areas such as communities near water catchment areas and forest reserves, are sensitized to the importance of applying the key principles in sustainable consumption and production. Activities selected are as follows:

- a) Development of locally adopted educational materials on sustainable consumption and production.
- b) Dissemination of the educational materials amongst primary and secondary school students.
- c) Facilitate establishment of sustainable consumption and production clubs in schools.
- d) Promote general public awareness through media programmes and public events.



#### **4. INPUTS**

Inputs for the project will consist of expertise (international and national). Other inputs such as transport, communications and office facilities will be accessed from a pool of resources to be coordinated by the Cleaner Production Centre.

#### **5. OUTCOMES**

- a) Increased public awareness on sustainable consumption and production issues.
- b) Creation of new, young generation which can serve as change agent within society
- c) Development of a sustainable consumption and production culture.

#### **6. TARGET GROUPS**

General public, Primary and secondary schools, media professionals, NGOs and CBOs.

#### **7. VERIFIABLE INDICATORS**

- a) Number of students and members of the public reached by the programme;
- b) Number of SCP clubs established;
- c) Number of SCP-related initiatives undertaken

#### **8. PROJECT MANAGEMENT**

The project will be coordinated through the Cleaner Production Centre of Tanzania which will work in close collaboration with other stakeholders including NEMC, Ministry of Education, LGAs, Environment NGOs and CBOs.



## PROJECT CONCEPT NOTE 8

### *Cleaner City-Vehicle Emissions*

#### 1. BACKGROUND

In Tanzania, the transport sector has been characterised by a recent rapid increase in the number of privately-owned vehicles in the major cities and towns. In particular, Dar es Salaam city is subjected to very frequent traffic jams and congestion as people make their way to and from work during peak traffic hours. This situation will lead to the inevitable increase in smog and polluted air resulting from vehicle congestion and emissions. There is need to look at options that will enable the urban areas to cope with some of the rapid changes in the urban environment.

#### 2. OBJECTIVES

##### 2.1 National Objectives

In light of the rapid urbanization trends in most of the major municipalities in Tanzania, the Government has initiated a number of nation-wide and urban-level programmes which are aimed at addressing the issues of sustainability in urban areas and in particular, the challenges faced in ensuring easy and efficient transportation while maintaining the quality of the environment.

##### 2.2 SCP Objectives

SCP objectives are geared towards promoting measures and technologies within the urban transportation sector which while addressing transportation needs in urban areas, will pay adequate attention to issues of sustainability as well as impact on the environment and quality of life.

#### 3. ACTIVITIES AND DURATION

Key SCP activities for the cleaner city-vehicles programme are as follows:

- f) Preliminary assessment of urban transport problems including status of on-going initiatives such as Bus Rapid Transit system.
- g) Collect sample data on trends on in increase in number of city vehicles, vehicle movement patterns including peak traffic hours.
- h) Identify and review various options to address problems of traffic congestion and limit/reduce resulting air pollution.



- i) Promote feasible options for fuel switching such as LPG, CNG and biofuels for transportation.
- j) Explore the options of using CDM as a tool to leverage financing for implementing key emissions reduction projects.
- k) Coordinate and link with agencies and institutions in other countries that have already undertaken similar measures.
- l) Preparation of educational and awareness publications on the various options for dissemination to the general public

The pilot project is envisaged to have a 24-month duration.

#### **4. INPUTS**

Project inputs consist of International and National Expertise in SCP, Urban Transport, Energy and Environment; Additional inputs for the pilot activities will be managed and coordinated by the Cleaner Production Centre through a system of pooled resources for the various pilots.

#### **5. OUTCOMES**

- e) Improved general awareness of the general public on sustainable transport and cleaner technology options for the transport sector.
- f) Reduction or retardation of environmental pollution and degradation in terms of air quality in urban areas.
- g) Improved profile as well as economic benefits from adoption of efficient and less expensive technology options.

#### **6. TARGET GROUPS**

Groups targeted by the programme include individual vehicle owners, mass transport and cargo operators, Ministry of Infrastructure Development, Division of Environment, VPO and urban residents and communities.





## 7. VERIFIABLE INDICATORS

- a) Change in noticeable level of emissions and air quality during peak hours
- b) Number of urban transporters implementing measures to improve vehicle emissions.
- c) Measure of economic benefits derived from implementing vehicle improvement/efficiency measures.
- d) Level of savings passed on to urban public transport passengers.

## 8. PROJECT MANAGEMENT

The Cleaner Production Centre of Tanzania will coordinate the SCP programme for cleaner city-vehicle emissions working in close collaboration with key actors from Div. of Environment, VPO, NEMC, LGAs, Ministry of Infrastructure Development, Tanzania Transporters Association and NGOs.



## PROJECT CONCEPT NOTE 9

### *Sustainable Agriculture*

#### 1. BACKGROUND

A large portion of the agricultural activities in Tanzania are carried out by peasant farmers using practices that are highly labour-intensive, leading some farmers to resort to techniques that are often detrimental to the soil and land in the long-term. There is need to identify and integrate best practices on renewable energy in agriculture (ploughing, irrigation, storage, processing and transport) in order to assist farming communities to become more productive and earn higher incomes.

#### 2. OBJECTIVES

##### 2.1 National Objectives

The Government aims to transform the agricultural sector into a vibrant, mechanised and high output sector with strengthened linkages to other key economic sectors.

##### 2.2 SCP Objectives

SCP objectives are aimed at ensuring that the expansion and modernization of agriculture occurs in a manner that is beneficial to the farmer, sustainable and friendly to the environment.

#### 3. ACTIVITIES AND DURATION

SCP activities for sustainable agriculture include the following:

- (i) Identification and promotion of renewable energy technologies suitable for various farming activities.
- (ii) Promotion and sensitize Government, Micro-financing for implementation of renewable energy technologies suited for farming establishments including micro-windpower, solar pv, biomass and micro hydropower.
- (iii) Promote adoption of biofuel technology for farm equipment and machinery.
- (iv) Promote expansion of value chains such as industrial uses for cassava, biofuels and ethanol production; coconut products and by-products.



#### **4. INPUTS**

Inputs for the project will consist of expertise (international and national). Other inputs such as transport, communications and office facilities will be accessed from a pool of resources to be coordinated by the Cleaner Production Centre.

#### **5. OUTCOMES**

- a) Increased awareness amongst rural communities on the applicability of renewable energy technologies
- b) Increased utilization of renewable energy technologies in rural and farm establishments.
- c) Increased involvement of donor, NGO and micro-finance institutions in establishment of small-scale renewable energy projects.
- d) Increased production of a wide range of industrial products including biofuels from raw materials such as cassava, fruit wastes and coconuts.

#### **6. TARGET GROUPS**

Rural and farm communities, Local Government Authorities, NGOs and CBOs, Micro-finance institutions.

#### **7. VERIFIABLE INDICATORS**

- a) Number of rural communities sensitized to renewable energy technology options in target area
- b) Number of renewable energy technologies adopted and installed in target rural areas.
- c) Number of industrial products and by-products being produced in target areas.

#### **8. PROJECT MANAGEMENT**

The project will be coordinated through the Cleaner Production Centre of Tanzania which will work in close collaboration with other stakeholders including the Ministry of Agriculture, Ministry of Energy and Minerals, NGOs and CBOs.