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National Policies and Strategies on Bioenergy in Africa

Case Study: Tanzania

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COMPETE

**Competence Platform on Energy Crop and Agroforestry
Systems for Arid and Semi-arid Ecosystems - Africa**

Responsible Partner:

TaTEDO, PO Box 23794; Kijitonyama, 255 Dar es Salaam, Tanzania

Project Co-ordinator:

WIP, Sylvesterstrasse 2, 81369 Munich, Germany

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The Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems – Africa (COMPETE) will establish a **platform for policy dialogue and capacity building** and identify **pathways for the sustainable provision of bioenergy**

- to improve the quality of life and create alternative means of income for the rural population in Africa
- to aid the preservation of intact ecosystems in arid and semi-arid regions in Africa
- to enhance the equitable exchange of knowledge between EU and developing countries

The current document has been elaborated within Work Package 6 on Policy Development of the COMPETE project by the consortium partner Tanzania Traditional Energy Development and Environment Organisation (TaTEDO).

The objective of COMPETE Work Package 6 is to coordinate policy research activities in African countries aimed at facilitating the efficient implementation of improved energy crop and agroforestry systems in order to enhance economic productivity and sustain rural and peri-urban livelihoods. It is also aimed at avoiding adverse environmental and social degradation that could arise from faulty policy development and implementation.

Within the context of the COMPETE Work Package 6 current national and international policies and strategies (including national legal and institutional frameworks) are identified addressing the implementation of improved energy crop and agroforestry systems.

Produced by:

Mr Estomih Sawe
Tanzania Traditional Energy Development and Environment Organisation
Kijitonyama
255 Dar es Salaam
Tanzania
E-mail: energy@tatedo.org
Tel: 255 22 2700771
Fax: 255 22 2774400

National Policies and Strategies on Bioenergy in Tanzania

1.0 Background and Context

In Tanzania, bioenergy, and in particular traditional solid bioenergy i.e. woodfuels (charcoal firewood), agro residues remains the dominant energy source for cooking in most rural and urban households. These contribute more than 90% of the total energy consumed in Tanzania. In addition to satisfying household energy requirement, bioenergy is also used in supplying process heat for many rural industrial production activities, pottery, brick and lime firing, drying tea and tobacco, local beer brewing, fish smoking and several other small industries. Some large industries such as sugar and saw mills, and pulp and paper mills also to a certain extent use bioenergy for cogeneration of electricity and heat. Studies of Tanzania energy consumption patterns indicate that, due to lack of affordable substitutes, traditional solid bioenergy will remain the major energy source in the foreseeable future.

Like in other developing countries, Tanzania bioenergy resources are not used on a sustainable basis and continue to be depleted. The growing depletion of wood resources due to growth in demand resulting from population increases, agricultural expansion, over grazing by livestock and over exploitation of forest resources for commercial gains (including supplying fuelwood and charcoal to urban markets and institutions) - continues and has seriously affected environments leading to deforestation and loss of soil fertility.

There is limited awareness and understanding of the use of improved biomass practices and technologies (stove, kilns, ovens etc.) and possibilities and potentials of growing, processing and use of modern bioenergy (Ethanol and Biodiesel) to meet local energy needs.

2.0 Bioenergy Government Policies Relevant to Bioenergy Development

To mitigate the afore mentioned concerns, the government of Tanzania has within her energy, agriculture, land environment and forest policies, statements of intentions to improve the supply and demand of solid bioenergy and ensure its sustainability. Such statements include:

Forest policy (1998) Objective is to ensure sustainable supply of forest products and services by maintaining sufficient forest area under effective management. Also to enable participation of all stakeholders in forest management and conservation, through joint forest management agreements, with appropriate user rights and benefits.

Energy policy of (2003,) statement 37, Promote efficient biomass conversion and end-use technologies in order to save resources, reduce rate of deforestation and land degradation and minimizing threat on climate change.

Environmental policy of (1997) Investment in Biomass development vital for environmental protection and poverty reduction.

Land policy of (1997). Recognized the confusion and uncertainty regarding land tenure and management authority over most land in Tanzania. Policy sought to dispel this confusion by reiterating government of Tanzania general underlying right to land, but clearly recognizing and clarifying customary and other use rights to land.

Agriculture policy (1997). the policy seeks to promote sustainable food security, income generation, employment growth, and export enhancement through the development and dissemination of appropriate and environmentally friendly practices and technologies.

While these policies have ambitious goals, they have rarely linked plans and capacity to implement them through effective strategies and regulatory framework, as a result the solid bioenergy situation in Tanzania has continued to deteriorate with serious negative environmental socioeconomic consequences in most rural areas.

Concerning modern liquid bioenergy (ethanol and biodiesel), currently there is no specific policy or regulatory framework to ensure sustainable development of liquid bioenergy in Tanzania. The government of Tanzania has however in April 2006 established a national biofuels task force to formulate and propose an enabling environment to facilitate the development of biofuels in Tanzania. The specific tasks of the biofuels Task Force are:

- Facilitate the ongoing and potential biofuels initiative in Tanzania.
- Conduct a Policy and regulatory Environmental scan.
- Develop guidelines for biofuels development in Tanzania.
- Prepare a coordinated and integrated programme for the development of biofuels in Tanzania, and
- Develop programme, identify and map out suitable areas/land for biofuels development in Tanzania.

As of, November 2007, the biofuels task force has had the following out points.

- SWOT Analysis and prioritized strategic Actions.
- Prepared draft guidelines for biofuels development in Tanzania.
- Prepared a comprehensive action plan.

3.0 Existing Bioenergy Projects and Initiatives in Tanzania.

Presently there are a few small scale on going bioenergy projects aiming at improving the supply and use of solid and liquid bioenergy. Some of such on going projects include:

3.1 Solid Bioenergy

A few projects have targeted increased dissemination and adoption of improved wood fuel stove technologies, including rural mud, ceramic, stones and brick firewood and metal ceramic charcoal stoves. These efforts have demonstrated, improved technologies and marketing to ensure greater adoption and have developed the production and business – skill capacity of private entrepreneurs. While most have demonstrated successful results, significant scale up across the country is yet to take place. Projects that are on going with notable results include the following:

A programme on integrated wood-fuel services for poverty reduction in Tanzania

- The specific objective of this programme is to increase income of the rural and urban beneficiaries through reduced costs and increased efficiency of wood – fuel stoves, ovens and charcoal production kiln. The beneficiaries of this programme are households, social service centres, and small and medium enterprises. TaTEDO is implementing the programme with financial support from the EU and the HIVOs. It will be implemented over a period of four years from January 2006.
- A program for Biomass Energy Conservation (PROBEC) is a SADC programme implemented by governments with some technical assistance from GTZ. It is being implemented in eight SADC member countries namely Lesotho, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia and Zimbabwe. In Tanzania the programme implementation started in 2004 with the objective of improving access to improved wood fuels stoves for households, institutions and productive sectors.

3.2 Liquid Bioenergy

In Tanzania there exist several initiatives from the national to the local levels with the objective of developing, policies, regulations and programme aiming at ensuring sustainable development of liquid bioenergy in Tanzania. The government through a biofuels Task Force is working on the preparations of policies, regulations for creating enabling environment for stakeholders to participate in the development of biofuels. In spite of the delays in the formulation of regulations, several actors (e.g. multinationals, companies, NGOs, institutions and small holders farmers) are implementing projects aimed at increasing the supply of liquid biofuels in the country. More than ten companies already are at different stages of establishing farms for biofuels farming, such companies include among others; Prokon (Germany), Wilma (USA), SEKAB (Sweden), Diligent (Netherlands), some are in joint ventures such as FELISA with investors from Tanzania and Belgium.

Local institutions at the forefront of promoting liquid biofuels include Kakute which supports small farmers to grow *Jatropha* and sell its oil for soap production. TaTEDO is doing a number of activities which include awareness creation at all levels, supporting small farmers to grow and process *Jatropha* and sunflower to provide oil for powering multifunctional platforms and sell extra to private company buyers. TaTEDO will be undertaking such activities in more than 120 villages in the next five years starting January 2008.

4.0 Institutions responsible for Biofuels Development in Tanzania

The institutions involved in the development of biofuels in Tanzania include a variety of government ministries, such as the Ministry of Planning, Economic and Empowerment, the current chair of national biofuel task force, Ministry of Energy and Minerals, the secretariat of the biofuel task force, Ministry of Agriculture, Food Security and Cooperatives, Ministry of Labor, Youth Development and Employment, Ministry of Finance, Ministry of Water, Vice Presidents Office – Division of Environment. Other government institutions include,

Tanzania Investment Centre (TIC), Attorney Generals chambers, (AGC), Tanzania Petroleum Development Cooperation (TPDC) and Community Finance Limited (CFC).

There are several Developmental organizations that are at the forefront of the development of biofuels, they include, TaTEDO, Sugar Producers Association, Envirocare and several other locally based NGOs and CBOs. Also there is an increasing private sector participation from inside and outside the country. Some of such companies include Felisa, Kakute, Sun Energy LTD, Deligent, Wilma, Prokon, Bio-Alcohol Fuel foundation (BAFF), SEKAB etc.

5.0 Other Areas of strategies relevant to bioenergy development

Tanzania has considerable potentials for growth including the contributions of modern bioenergy. The main driver for growth, the private sector, and the economic base for the majority of the population, which is the agricultural sector, have not been able to generate growth levels needed for alleviating poverty and bring about sustainable development.

The energy sector, in particular the bioenergy, which could provide necessary input to sustainable development has remained poorly developed. Majority of the people continue to depend on the solid bioenergy, which is inefficiently used. The heavy reliance on human energy and solid bioenergy contributes to poverty and environmental degradation such as soil erosion and deforestation; which consequently lead to low productivity among majority of the people. Also, only 10 percent of Tanzanians have access to grid electricity.

To address this situation, the government has continued to undertake a wide –range of measures since 1990s. During the year 2000, Tanzania Assistance Strategy and poverty Reduction Strategy Paper (PRSP) were concurrently developed, building on the National Vision 2025, and the National poverty eradication Strategy (NPES) to address poverty issues. Beyond this, Tanzania is committed to the agreements and is striving to achieve the Millennium Development Goals (MDGs) as internationally agreed through its newly formulated and MDGs based National Strategy for Growth and Reduction of Poverty (NSGRP). The NSGRP highlights energy and in particular bioenergy as important input in the achievement of the NSGRP objectives. The strategy provides a comprehensive and coherent framework to improve the available energy, in particular bioenergy delivery systems.

6.0 Other legal framework related to Bioenergy Development.

In principle, there are several enacted laws that provide for bioenergy development in Tanzania. Such legislations include;

Environment Management Act (EMA) No. 20 of 2004, the part VI of the EMA deals with Impact Assessment (EIA) and other Assessments, and directs that EIA is mandatory for all development projects. Section 81 (2) states that “An environment Impact Assessment study shall be carried prior to the commencement of financing of a project or undertaking”.

National Environmental Impact and Auditing Regulations (2005): These regulations set procedures for conducting EIA and environmental audit in the country. The regulation also requires registration of EIA experts.

The Land Act (199) and the Village Act (1999)

The laws declare all land in Tanzania to be “Public land” and are held by the state for public purposes. The Acts empowers the President of the United Republic of Tanzania, to revoke the “Right of Occupancy of any landholder for the “public/national interest” should the need arise. The laws also declare the value attached to land, as opposed to the former legislation.

The Land Acquisition Act of 1967 and Land Ordinance

The Land Acquisition Act gives power to the President to take “Land” from private occupants for the purpose when in the public interest to do so. The Land Ordinance declares all land in Tanzania “Public Land” to be held by the state for public purposes.

Forest Act (2002)

The Act controls forestry development in Tanzania. The Act also controls forest plantation management and conservation of natural trees genes.

Other laws: Other laws, relevant to bioenergy development include:

- The Water utilization (Control and Regulation) Act (1974) as amended in 1981
- The town and country planning Ordinance Cap 378 of 1956 (as amended in 1961)
- Wildlife Conservation Act No. 12 of 1974 (as amended in 1978)
- Protected places and areas Act (1969)
- Local Government Act of 1982 (Urban and District Authorities)

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**COMPETE Project Coordination
WP7 Coordination - Dissemination**

WIP Renewable Energies
Sylvensteinstr. 2
81369 Munich
Germany

Contact: **Dr. Rainer Janssen**
Dominik Rutz

Phone: +49 89 720 12743

Fax: +49 89 720 12791

E-mail: rainer.janssen@wip-munich.de
dominik.rutz@wip-munich.de

Web: www.wip-munich.de

WP1 Coordination – Current Land Use

University of KwaZulu-Natal
School of Environmental Sciences
South Africa

Contact: **Dr. Helen Watson**

E-mail: watsonh@ukzn.ac.za

Web: www.ukzn.ac.za

WP2 Coordination – Improved Land Use

Utrecht University
Dept. Science, Technology and Society
The Netherlands

Contact: **Dr. Andre Faaij**
Dr. Veronika Dornburg

E-mail: A.P.C.Faaij@uu.nl
V.Dornburg@uu.nl

Web: www.chem.uu.nl/nws

WP5 Coordination – Financing

Energy for Sustainable Development
United Kingdom

Contact: **Jessica Abbott**
Stephen Mutimba

E-mail: jessica.abbott@esd.co.uk
smutimba@esda.co.ke

Web: www.esd.co.uk

**COMPETE Project Coordination
WP3 Coordination - Sustainability**

Imperial College London
Centre for Energy Policy and Technology
South Kensington Campus, London, SW7 2AZ
United Kingdom

Contact: **Dr. Jeremy Woods**
Dr. Rocio Diaz-Chavez

Phone: +44 20 7594 7315

Fax: +44 20 7594 9334

E-mail: jeremy.woods@imperial.ac.uk
r.diaz-chavez@imperial.ac.uk

Web: www.imperial.ac.uk

WP4 Coordination – International Cooperation

Winrock International India

Contact: **Sobhanbabu Patragadda**

E-mail: sobhan@winrockindia.org

Web: www.winrockindia.org

Stockholm Environment Institute

Contact: **Francis Johnson**

E-mail: francis.johnson@sei.se

Web: www.sei.se

European Biomass Industry Association

Contact: **Stephane Senechal**

E-mail: eubia@eubia.org

Web: www.eubia.org

WP6 Coordination – Policies

Food, Agriculture and Natural Resources Policy
Analysis Network of Southern Africa
South Africa

Contact: **Douglas Merrey**
Dr. Charles Jumbe

E-mail: d.merrey@cgiar.org
charlesjumbe@bunda.unima.mw

Web: www.fanrpan.org



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