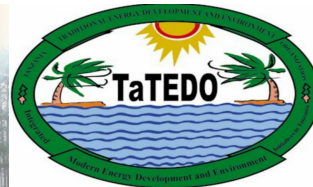


# TAARIFA - ENERGY INFORMATION

## Did you know ?

Bush fire is a recurrent feature of dry savannas, in some places is caused by climate change effects (due to drought) and contributes largely to people homelessness and depletion of vegetation and woodfuel reserve.



TaTEDO Bulletin issued by Sustainable Energy Information and Communication Management Department Issue NO 2/2010 February 2010

## Artisans Told to Improve Charcoal Stoves Quality

By Fredrick Tunutu

Charcoal stove artisans in Dar es Salaam have been urged to improve the quality of their stoves in order to restore the confidence of their costumers which have been dented by the production of low quality stoves.

This was said by the Kinondoni District Commissioner Mr Jordan Rugimbana in the speech delivered on his behalf by the District Administrative Secretary Mr. Gerald Patrick Marcelin when opening the charcoal stove artisans meeting held in SEDC, Mbezi Juu on 11<sup>th</sup> February 2010

He called upon artisans to draw strategies and arrest the anomaly taking into consideration the significance of improved stoves in environmental conservation through emission reduction and energy saving. He asserted that the government is fully supporting the stove artisans in a move to make sure that all barriers which derail the smooth dissemination of improved stoves are removed. He asked the participants to aligned their activities with the National Strategy for Growth and Reduction of Poverty (MKUKUTA)



Photo 1: Kinondoni District Administrative Secretary Mr. Gerald Patrick Marcelin delivers a speech as he opened a one day meeting of stove artisans seat next to him is TaTEDO acting Executive Director Mr Glory Samson

The participants resolved that they will take several steps to ensure artisans produce stoves which meet the required standards and that customers will get the value worth their money. They appealed to the government and TaTEDO to provide them with more entrepreneurial and technical skills to boost and enhance their production.

The meeting was organized by TaTEDO and attended by

representatives of charcoal producers from all districts of Dar es Salaam Region, TaTEDO Staff, and energy stakeholders from PROBEC, ENVO-TECH, COSTECH, E&CO, Ministry of Energy and Minerals, Ministry of Labour, Employment and Youth Development as well as representative from all District Councils of Dar es salaam Region.

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## TENDER ADVERTISEMENT



CORRIGENDUM TO SUPPLY PROCUREMENT NOTICE



### Components for Multi Functional Platform (MFP) and Productive Use Containers (PUC)

Publication Reference: Europe Aid/I28651/D/SUP/TZ

Humanist Institute for Co-operation with Developing Countries (HIVOS), Raamweg 16,2596 HL, The Hague, the Netherlands intends to award a supply contract for Multi-Functional Platform's (MFPs), consisting of a vegetable oil driven combustion engine driving an alternator/oil seed press c/w filters/maize mill/maize dehusker and/or water pump as well as Productive Use Containers (PUCs), equipped with battery power or solar panels.

The deadline to submit tender at TaTEDO's offices has been extended to 29th March, 2010 at 14:00 hrs Tanzanian Time.

Tender opening will be on the 29th March, 2010 at 14:30 hrs. at TaTEDO, Plot no 589, Kijitonyama, Dar es Salaam, Tanzania.

Any tender document submitted beyond deadline will not be considered.

## Loyalty is a Key Component for Sustainable Business Development to Energy Entrepreneurs

By Fredrick Tunutu

Sustainable Energy entrepreneurs have been reminded that loyalty is a key component for them to benefit from small business loans available through various financial institutions in the country.

The call was made by a business consultant from E& CO Mr. Emanuel Muro when addressing artisans during their recent meeting at SEDC, Mbezi Juu on 11<sup>th</sup> February, 2010. Mr. Muro said that financial institutions in the country have money for lending to entrepreneurs as far as they fulfil their appropriate requirements and other criteria.

However, in order to qualify for loans one should develop a viable business idea that could be accepted by financial institutions. He emphasized the need of entrepreneurs to join SACCOS as the easiest way of secur-

ing loans to finance their businesses. He also underscored the importance of artisans to stop relying too much on the government and other institutions and instead join forces in forming voluntary associations and cooperatives which can safeguard their business as well as advocate for the government intervention in making the stove industry recognized legally. He said, E&CO has set aside funds to lend to modern energy entrepreneurs and urged them to utilize the opportunity presented to them adding that Sahara Jiko Bora Group are supposed to receive the loans after fulfilling all the requirements including the registration of their group.

E&CO is a company which supports the implementation of clean, economically sound energy projects that reach rural and



Photo 2: A cross section of Dar es Salaam stove artisans at the meeting organized by TaTEDO at SEDC

urban populations in developing countries. E&CO is using its early-stage financing to demonstrate to investors in the public and private sector that the establishment of sound, indigenous energy enterprises is a win-win solutions to two problems: unmet demand for energy services in developing countries and climate change

## TaTEDO's Efforts on the Business Development Services for Northern Zone Entrepreneurs

by Helmut Nyoni

“With the business skills training from TaTEDO experts, we now foresee an opportunity for growth”, Pothamia Kimario, Chairperson of 5 Stars Mothers Group (Baking Entrepreneurs) at Mengeni Chini, Rombo says during the training conducted by Rombo Business Development Officers (BDOs) on Marketing strategies.

Access to rural modern energy in Tanzania is limited by the poor entrepreneurial skills of energy service providers. TaTEDO has improved its in house capacity to deliver Business Development Services in order to support development of entrepreneurship and expand the market for sustainable energy technologies.

BDOs were recruited in TaTEDO and they were given an opportunity to attend Business Development Services (BDS) training

conducted by Triodos Facet. All the BDOs stationed in Northern Zone at district level, Helmut Nyoni is stationed in Rombo but also serves Moshi Rural, Faustine Msangira is stationed in Hai, but also serves Siha and Arumeru, Gasper Mwakysa is stationed in Mwanga but also serves Moshi Urban, and Faustine Buhama is stationed in Monduli.

After a period of one month long of orientation and training, BDO's went to the field to work with private sector rural energy entrepreneurs and other stakeholders to assist their businesses to grow and innovate particularly in the areas of marketing, promotion, market research and after sale services

Mama Babuu Baking at Boma Ng'ombe and Mama Kiwalla of Moshi Urban have all

appreciated the efforts of TaTEDO for



Photo 3: Energy technicians during a coaching session at Machame-Aleni in Rombo District

introducing entrepreneurship training to rural energy entrepreneurs.

“Why has this opportunity come to us late; We have been waiting this for a long time” says the owner of Mama Babuu Baking at Boma Ng'ombe during the coaching session conducted by Hai/Siha BDO on record keeping.

## The Value Chain of Okoa Stoves

By Thomas Patrick Mkunda-Northern Zone Office Moshi

Woodfuels is widely used in both rural and urban areas as a main source of domestic energy for cooking, heating, boiling and even for commercial purposes like brewing, frying, baking and roasting. In Kilimanjaro region, Moshi Urban district 80% of the population use woodfuels for cooking. In the rural areas especially in the other districts, more than 95% use firewood for cooking. Okoa Stove construction activities is a service that is offered by trained firewood stove technicians who have been trained by TaTEDO.

Improved firewood stoves with chimney is constructed by using locally available materials which are supplied by local suppliers and constructed by trained artisans living in the project areas. The stove is made by using clay bricks, volcanic stones, metallic materials, cement, sand and lime. Okoa stove technology is made available to the end users by a good number of people such as stove construction artisans, welding and fabrication technicians, clay bricks and sand suppliers, hardware shops selling metallic materials, cement, lime, and plumbing materials such as Pipes, Bib cork, Union etc.

### Stove artisans

These are technicians who construct stoves, they get payment out of the service of constructing stoves, they earn money through the stove construction labour charge.

The amount paid for labour charge var-

ies with the function requirements of the client. The stove that have two (2) burners with chimney the technician get Tshs 35,000/= as labour charge and the marketing personnel earn Tshs 2000/= as marketing incentive. Out of the

stove construction labour charge the technician gets Tshs 25,000 and Tshs 10,000 is paid to the supporting labourer. In case the stove has two (2) burners and water heating provision. The technician is paid 50000 and the supporting labourer gets 20,000. An individual technician having one supporting casual labourer, can construct 10 stoves per month and hence the technician can earn Tshs 250,000/= and supports labourer for Tshs 100,000/= per month.

### Marketing Personnel

Marketing personnel plays a role of looking for customers through provision of information regarding the significance of the stoves, persuading community members to use the improved firewood stove. Out of the service rendered by the marketing personnel, the respective person earn 2000/= per each constructed stove.

### Supplier of hardware materials

There are shops selling industrially made, improved firewood stoves con-



Photo 4: An improved fuel wood stove [OKOA STOVE] ready to use in Foo village

struction materials, these are the hardware shops selling cement, lime, flat bars and round bars, metallic water pipes and pipe fittings, such shops have increased the market of such materials through Okoa stoves promoted by TaTEDO.

### Supplier of fabricated metal parts.

Welding and fabrication technicians supply stoves metal parts. They fabricate fuel shelves, pot guards, and ash rake for stoves with water heating provision, they also supply water heater fabricated by metallic water pipes. The technician get 2000 as labour charge for fabrication of fuel shelves, 1000 for fabrication of ash rake and 8000 for fabrication of 2 port guards. The technician earns 5000 for fabrication of water heating provision. Hence for a 2 burners stove the technician earn 11 000 for the stove without Water heater and 16,000 for the stove with water heating provision

*Continues on page 4*

## Bricks, Stones and Sand Supplier

### Bricks suppliers

Suppliers of bricks are individual people in the project areas who have shown commitment to supply clay bricks which are used as insulators in the firebox. The bricks which are used as insulators are bought from KIDT, an industry based in Moshi, producing clay bricks and some ceramic materials. The suppliers buy the bricks and transport them to the project areas and sell the brick at a profit margin of TSHs 100/= each. One stove use 16-20 Pcs of bricks hence bricks seller earns a profit of 1600 to 2000 per each constructed stove.

### Sand Suppliers

Sand which is another important material used for stove construction is a scarce hence, the high demand of sand and cost implication of transportation of sand render the price to be higher. Few supplier of Sand exist in the project villages, such people play a big role to supply sand and they sell a tin of sand (20,000-25,000 cc) at 1,200/= Tshs, 100-200 Tshs is the profit margin of a tin of sand. One constructed stove uses 12 tin of sand hence the supplier earns 1200 to 2400/= per each constructed stove. In some areas, the supplier of sand also supplies bricks.

### Stones Supplier

In the villages near the mountain, there are suppliers of volcanic stones. These are individuals who collect and transport stones for construction of stoves. One cubic meter of stones is sold at Tshs 10,000 to 15,000. In most

cases these people use human energy for transportation and much time to earn the mentioned amount of money.

### End user.

The end user of the stove benefits directly and indirectly from way of stove. There are environmental, economical and health benefits of stoves to the end user.

### Environmental value.

Okoa stove reduce pressure on the forest catchment sources by saving at least 50% of the trees cut for firewood, Okoa stove contribute to environmental conservation through mitigation of deforestation. The stove reduce emission efficient combustion of firewood as well as provision of carbon sink media through the saved trees by using Okoa stove compared to three stone open fire stove. Environmentally, Okoa stove is a technology which conserves forest resources and enhances adaptation to climate change through mitigation of woodfuels consumption to the end user at household level, schools and business who are target areas using firewood for cooking, heating, brewing etc.

### Health significance.

Okoa stove improves the health of the cook because it suppresses indoor air pollution; hence the cook is not at risk of getting respiratory diseases. Children are not in a danger of fire when the household uses Okoa stove for cooking.



Photo 5: Bricks from KIDT which are used for construction of stoves

### Monetary saving.

The stove save consumption of firewood and hence save money which is used by the end user for other necessities. A family spending 15,000 of money for buying firewood stove will spend less than 7500/= per month using Okoa stove. Within a year a household with Okoa stove will save money range from Tshs 90,000-120,000.

### Time saving.

Okoa stove through minimization of firewood use reduce the frequency and hence time for fetching firewood hence more time for productive activities.

## SOURCES OF FUNDS

### US DOE to Fund 13 Solar Energy Projects to the Tune of \$168m

Secretary Samuel W. Bodman today announced the selection of 13 industry-led solar technology development projects for negotiation for up to \$168 million (FY'07-'09) in funding, subject to appropriation from Congress.

More information: <http://www.azom.com/news.asp?newsid=7962>

# TaTEDO Introduced REDD Project in Shinyanga Region

By Mary Swai

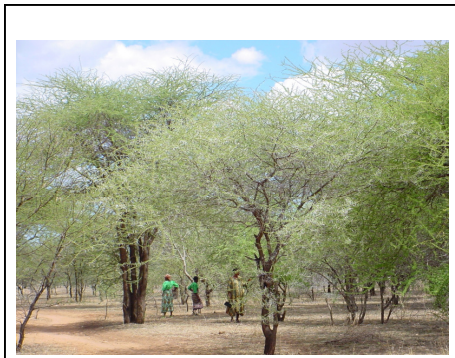


Photo 6 Ngitili provides people with fodder and wood products

TaTEDO in collaboration with Development Associate (DASS) at the end of January 2010 conducted a field visit to Shinyanga Region aimed at introducing the REDD project “Community-based REDD Mechanisms for Sustainable Forest Management in Semi-Arid Areas (Case of Ngitilis in Shinyanga Region)” to partners and agree on their involvement in the project implementation.

During their visit, the field team met Shinyanga Regional Commissioner Brig. Gen. (Rtd) Yohana Balele and presented a brief background on REDD concept . During the discussions, the Regional Commissioner indicated that environment conservation is one of his priority areas and he was very impressed with the project designing and its implementation arrangement. He said the project represent a good example of public private partnership projects

He said Shinyanga afforestation policy

insists on massive tree planting, where every person regardless of age is required to plant minimum of 10 trees per year. It is of critical importance to determine deforestation rate against the number of trees required for replacement. He stressed the importance of the baseline situation which will provide scientific basis on which results plans and can be referred.

The team also managed to meet the Regional Administrative Secretary (RAS) Ms. Mwanvua Jilumbi, her assistance Mr. Msanzu and Mr. Alpha Ntayomba Who works in the natural resource office.

The project was briefly presented to the RAS and his staff. They were pleased to see a continuation of conservation activities in Shinyanga. The team mentioned REDD project launching meeting to the RAS as one of the areas which will require his representation and involvement. They showed great interest in the project and promised to offer any required support deemed necessary for the success of to the project.

The team also visited Kahama District where they met the District Executive Director (DED), Ms. Mary S. Qorro who said that from her observation; mining, population influx and tobacco farming are key drivers of deforestation and environmental degradation in Kahama. She also raised concern on allowances pro-

vided to local communities. Her worry is on acceptance of other development projects which has no incentives like REDD.

Project interventions will focus on integrating REDD with the indigenous agro-pastoralist systems called “ngitili.” Values of Ngitilis to Shinyanga communities extend beyond means through which people get their needs of fodder and wood products. Ngitili is a long-term investment that provides space for bal-



Photo 7:Ngitili provides pastures for castles

ancing immediate household needs, opportunity for diversification, income generation and safety net functions in times of crises.

Essentially, the project will address key drivers of deforestation and forest degradation which include introduction of alternative and energy efficient technologies, improved land use practices and development of institutional structure for REDD implementation. The project is supported by Norway MFA through the Embassy in Dar es Salaam and is of four years (2010-2013)

### More countries pledge to cut emissions under Copenhagen Accord

By: Christy van der Merwe

Some 70 developed and developing countries, responsible for about 80% of the world's greenhouse gas (GHG) emissions, had submitted emission mitigation pledges to the United Nations Framework Convention on Climate Change (UNFCCC) by Monday.

Initially, the Copenhagen Accord had outlined the deadline of January 31, for participating countries to submit their pledges to the UNFCCC, but individual pledges were still being submitted. Over 120 member country pledges were still missing. The Copenhagen Accord was the political agreement, which came out of

the December global climate change conference of the parties (COP) in Copenhagen. It is a three-page document, sculpted in a room where 28 of the 193 participating member countries were present, and which has only been 'noted', and not adopted, by the UNFCCC. South African Environmental Affairs DDG Joanne Yawitch pointed out that, interestingly, some of the countries, which played a part in the creation of the Accord, had not yet submitted pledges, such as Saudi Arabia and Sudan.

Read more on <http://www.engineeringnews.co.za/article>



Photo 8: Joanne Yawitch addressing participants in a meeting

## CONFERENCES AND WORKSHOP

### 2010 WIND POWER CONFERENCE AND EXHIBITION

#### Be Part of the Largest Wind Industry Event in the World

WINDPOWER is the only industry event that invests your dollars into advancing wind industry policy and promotion, advocating for the wind industry in renewable energy legislation, and communicating the benefits of wind energy to all.

Produced by the American Wind Energy Association (AWEA), WINDPOWER is the

premier wind energy event in North America, which last year hosted over **23,000** attendees and nearly **1,300** exhibitors.

Register by March 29 and SAVE! The early registration deadline is March 29, 2010 after which most registration rates increase. Rates increase again May 22, 2010 through on-site registration. [Click here for more details.](#)

#### CONTACTS

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#### TaTEDO in Brief

TaTEDO is a Sustainable Modern Energy (NGO) based in Dar es Salaam, Tanzania with activities in several district with more than 17 years experience. TaTEDO is actively involved in sustainable energy development projects and program in rural areas. The organization is not for profit and is spearheading the development of sustainable modern energy technologies and services, while conserving the environment

#### Our Vision:

Self-reliant and poverty free communities in Tanzania accessing sustainable modern energy services.

#### Our Mission:

To advance popular access to sustainable modern energy technologies in marginalized communities in Tanzania, through technological adaptations, capacity building, community mobilization and advocacy for increased access to sustainable energy services, poverty reduction, environmental conservation and self-reliance.

