

Trainers course on scaling-up sustainable woodfuel (charcoal and firewood) systems in Pwani, Lindi and Mtwara regions, Tanzania



Figure 1. Nasma Kaburu Illustrating woodfuel flows in different elements of the systems from wood production to consumption.

Mary Njenga, Ogossy Gasaya and Anthony Kimaro. (April 2018) World Agroforestry Centre (ICRAF).

About the project

The trainers course was carried out as part of the capacity development and awareness raising under the response plan on scaling up sustainable wood fuel (charcoal and firewood) systems in Pwani, Lindi and Mtwara regions Tanzania supported by Climate Technology Centre and Network (CTCN). The response plan is being implemented by World Agroforestry Centre (ICRAF) and the request was made by Tanzania Renewable Energy Association (TAREA) through Tanzania Commission of Science and Technology (COSTECH). The trainers' course was held at The Vocational Education and Training Authority (VETA) Lindi on 28th and 29th March 2018. The trainees in the trainer's course comprised of 21 people 16 men and 5 women involved at different aspects of the wood fuel system. They were from local communities, NGO's and government departments in the three regions. There were 7 members of the organizing team from ICRAF, COSTECH and TAREA.

The objectives of the trainer’s course include:

- a) Compilation of training/knowledge resources from a “whole system” perspective;
- b) Testing the available training materials for suitability for grassroots courses;
- c) Co-learning on systems approach and innovations for sustainable woodfuel among researchers, practitioners and policy makers involved in various aspects of the wood fuel systems
- d) Gathering ideas about the content and delivery options for grassroots courses;

The above objectives were met and bottlenecks included need for further synthesis of the training/knowledge resources and subsequent translations for grassroots courses.

Training modules and co-learning approach in knowledge sharing

The training materials used in the trainer’s course were a compilation of existing resources from the other works by ICRAF and partners and the trainees. Co-learning approach was applied in knowledge sharing as most trainees are involved in various aspects of the woodfuel system as shown in table 1.

The trainers’ course comprised of the following modules and components of each are shown in table 1.

Table 1. Components of the trainer’s course and facilitation

Module		Components	Facilitator
1	Introduction to sustainable woodfuel systems	Background information on woodfuel situation and trend, woodfuel system approach (wood production, efficient wood to charcoal conversion technologies-kilns, effective marketing and transportation,), aspects of sustainability, implications of sustainability and unsustainability of woodfuel and interventions to make woodfuel sustainable. Video clip on challenges faced by women when collecting firewood.	Dr. Mary Njenga* (Research Scientist, Bioenergy, ICRAF), Ogossy Gasaya* (Environmental and Natural Resource Economist, ICRAF) Mandela Chikawe, Regional Agricultural Advisor (RAA), Lindi.
2	Sustainable wood production	Benefits of trees and agroforestry and good landscape management, tree nursery establishment, tree planting, farmer managed regeneration or rotational harvesting of trees.	Ogossy Gasaya* (ICRAF), Violet R. Byanjweli. (Upendo Halisi group), Ignatusi J. Pasha, (Environmental Conservation and Community Enterprise ECOCE), Tozini Azizi Ally (Kaza Moyo Group), Revocatus M. Frumence (District Tanzania Forest Services {TFS})-Manager
3	Efficient charcoal processing and processing briquettes as alternative sources of biomass energy	Variety of kilns, benefits and disadvantages of improved vs. traditional kilns and management of the areas after charcoal production. Briquettes production and use as alternative sources of biomass energy. Video clip on community based briquette production and use.	Uwesu Omary (Farmers, charcoal producer and beneficiary of WWF project on improved kilns), Ogossy Gasaya* (ICRAF) Selemani M. Jullu (fuel briquette producer, Madendo Mtima Group.), Mary Njenga* (ICRAF).

	Module	Components	Facilitation
4	Efficient woodfuel consumption	Improved stoves, benefits and disadvantages of improved stoves versus traditional cooking stoves. Demonstration on a variety of improved stoves	Ashiru S. Yusuph, Lecturer and stove manufacturer (VETA Lindi), Ogossy Gasaya* (ICRAF) Wasiya Abdallah (clay stove producer), Bardwin F. Mpunga and Bakari H. Kambale (metal stove producers)
5	Effective marketing and trade	This lesson included: Different uses of woodfuel, setting objectives of the business, targeting type of customers, choice between charcoal and firewood, packaging and labelling, banking savings from sales	Revocatus M. Frumence (District Tanzania Forest Services {TFS}-Manager), Hamisi O. Salum (Farmer/charcoal producer), Abdullah S. Mpape (Farmer/charcoal producer).
6	Policy and regulatory framework	Regulations in wood sourcing, charcoal processing, transportation and trade.	Zawadi J. Jilala (Regional Secretariat, Lindi), Ronald N. Pangah (Regional Secretariat, Mtwara)

*Organizing team. Module one and two were offered in day one and modules three to six in day two.

Impact of the project shared during the training

Prior to the training Wasiya Abdallah a clay charcoal stove producer worked with Baldwin F. Mpunga who works on metal stoves worked with ICRAF and both developed a metal stove with a clay liner. Bakari H. Kambale a metal stove producer also worked with women clay charcoal stove producer and developed a metal stove with a clay liner. The teams presented the improved stoves during the training. The lesson was that the clay liner improves on energy saving hence reduced consumption. Also building the partnership helped to capitalize on specialization and jointly seek market for the finished product.

The head of VETA Mr Samuel Ng'andu, requested if the trainers course could be offered to some classes as part of environmental lessons. This could be offered as a lesson or a motivational talk. This can easily be followed up as one of the lecturers at VETA Mr. Ashiru S. Yusuph was one of the resource persons and trainer in the trainers' course.



Figure 2. Metal stove with a clay liner produced during the project by a female clay stove producer (Wasiya Abdallah) and male metal stove producer (Baldwin F. Mpunga).

Planning for grassroots trainings

The grassroots trainings will be facilitated by the graduates of the trainer's course supported by the project team. The trainees from each of the three regions developed a training schedule with shared responsibilities on facilitation. The compiled training resources used in the trainer's course will be adapted and synthesised into a simple grassroots training manual which will also be translated into Kiswahili.

Envisions impact on the ground by the graduates of the trainers course

- Increased awareness and self-motivated decision making on system approach to sustainable woodfuel
- Improved wood resource management including tree nursery establishment, tree planting woodlands management and sustainable harvesting for woodfuel
- Improved techniques in wood conversion into charcoal and consumption of woodfuel
- Increased gender equity and women involvement in profitable aspects of the woodfuel systems
- Increased income for households and the government
- Effective adherence to regulations for sustainable woodfuel systems

Table 2. Participants in the trainer's course on scaling-up sustainable woodfuel systems in Pwani, Lindi and Mtwara regions, Tanzania

	Name	Gender	Education	Designation /Organization	Mobile No.	Email Address
Mtwara						
1	Jane Kajange	F	Diploma	Farmer, charcoal trader	0656625995	janejaja8597@gmail.com
2	Tozini A. Ally -	M	Primary	Farmer, charcoal trader	0686433502	uhifadhimazingirakazamoyo@gmail.com
3	Nasma A. Kaburu	F	Secondary	Hotel chef, small scale user	0718225770	nasmakaburu@yahoo.com
4	Ronald N. Pangah	M	Degree	Regional secretariat	0656045336	roniimaqamara@gmail.com
5	Revocatus M. Frumence	M	Degree	District TFS-Manager	0784341834	Mryanumburn68@gmail.com
Lindi						
6	Baldwin F Mpunga	M	Primary	Farmer, stove producer	0654507421	
7	Wasiya Abdallah	F	Primary	Farmer, stove producer	0657083325	
8	Bakari H. Kambale	M	Primary	Farmer, stove producer	0684676724	
9	Violet R. Byanjweli	F	Degree	Tree nursery producer (DAICO)	0682005486	vai2009@yahoo.com
10	Amina Mandali	F	Degree	Secondary school manager, large scale firewood user	0782586468	aminamandali@gmail.com
11	Twahili Issa Sudi	M	Primary	Farmer, charcoal trader	0654101491	
12	Waziri A. Shaweji	M	Secondary	Farmer, charcoal trader	0689806599	
13	Zawadi J. Jilala	M	Degree	Regional secretariat	0788604192	zjilala@yahoo.com
14	Ashiru S. Yusuph	M	Degree	Lecturer VETA, Lindi	0754690918	ashym200@yahoo.co.uk
15	Mandela P. Chikawe	M	Degree	Officiated the training, Regional Agriculture Advisor (RAA) Lindi	0766923695	mandelachikawe@gmail.com
Pwani						
16	Daniel M. Wangese	M	Secondary	Hotel operator, large scale charcoal user	0715669606	
17	Seleman M. Jullu	M	Primary	Farmer, charcoal producer	0717632074	
18	Hamisi O. Salum	M	Primary	Farmer charcoal trader	0715028704	Sakahamisi2017@gmail.com
19	Ignatus J. Pesha	M	Degree	Tree nursery producer (ECOCE)	0688916557	ignatus.pesha@gmail.com
20	Uwesu Omary	M	Primary	Farmer, smart kilns builder	0716894075	
21	Abdallah S. Mpape	M	Form II	Farmer charcoal trader	0717219355/0783818228	
Facilitators						
22	Denis Saleko	M		Biomass energy expert (TAREA)	0763445827	Salekod62@gmail.com
23	Ogossy Gasaya	M	MSc	Environmental and Natural Resource Economist (ICRAF)	0784941220	gasayaogossy@gmail.com
24	Dr. Mary Njenga	F	PhD	Research Scientist, Bioenergy (ICRAF)	+254722331006	M.Njenga@cgiar.org
25	Gladys Francis	F	MSc	Administrative Assist (ICRAF)	0656020016	francisgladys06@gmail.com
26	Jimmy Sianga	M	Secondary	Logistical officer (ICRAF)	0713686486	J.Sianga@cgiar.org
27	Dr Gerald Kafuku	M	PhD	Principal Research Officer(COSTECH)	0766604977	kafukugm@gmail.com