Training of Trainers (ToT) on Sustainable Prosopis Juliflora Woodfuel Production and Utilization in Baringo County, Kenya

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Introduction
The training of trainers on sustainable woodfuel production and use was conducted on 7-11\textsuperscript{th}, October 2019 at KEFRI Baringo sub-centre. This piloting of improved woodfuel production technologies is part of the Governing Multifunctional landscapes in Sub-Saharan Africa: Managing Trade-Offs between Social and Ecological Impacts referred to as GML and funded by the European Commission (EC).

Objectives of the training
- Co-learning on sustainable woodfuel production and use systems
- Enhance skills and knowledge of charcoal producers and artisans on sustainable woodfuel production, use and fabrication of improved kilns.
- Enhance training skills of charcoal producers and artisans on sustainable woodfuel production technologies and use

Method of delivery:
- Process: The ToT was delivered through a co-learning process. The trainers delivered their expert knowledge on different technologies of wood production and use systems while the trainees also shared their real life lessons. The trainers were from: ICRAF, Kenya Forestry Research Institute (KEFRI), Adventist Development and Relief Agency (ADRA), Department of Agriculture and Livestock Development, County Government of Baringo and Kenya Forest Service (KFS).
- Mode of delivery: Lectures, question and answers, demonstration, hands-on practical’s, recaps by trainees, consumption of food products from Prosopis.
- Participants: There were 24 trainees selected by community representatives during Community Action Planning (CAP) in Loboi, Ilchamus and Ng’ammo locations.

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<tr>
<th>Education level</th>
<th>Male</th>
<th>Female</th>
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<td>University</td>
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In addition were, a primary school teacher, five young male metal artisans and two officers from the Department of Agriculture and Livestock County Government of Baringo.

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Recommendations
Prosopis has multiple benefits and should be managed through utilization for woodfuel, construction materials, feed for human and animals, and for its soil erosion control and windbreak etc. The use of the pilotted improved technologies and facilities for sustainable woodfuel should be monitored and continuous education offered as necessary. Continuation of dialogue with counties and national government for enabling polices on Prosopis management by utilization.

Modules covered in the training

(a) Rational for sustainable woodfuel and the causes and effects of unsustainable woodfuel production and use

(b) Charcoal carbonization processes: Pros and cons of selected technologies that included traditional earth mould kiln, improved earth mould kiln, drum kiln, portable drum ring kiln, Casamance and retort kiln. The project will pilot improved earth kiln and drum kiln to assess improvements for scaling up.

(c) Benefits and challenges of Prosopis juliflora and its management for sustainable woodfuel and 2029 resource visioning with interventions

(d) Resource recovery and reuse/circular bioeconomy for briquettes, biochar for soil improvement and wood vinegar for crop pest control

(e) Cleaner cooking with woodfuel

(f) Effective woodfuel trade and marketing

(g) Woodfuel policy and regulation

(h) Action planning for piloting 2019-2020

Open drum kilns carbonizing small stems

Drum kilns for carbonizing small stems

Harvesting wood vinegar from smoke

Charcoal dust+soil (or molasses)+water and moulding into briquettes using hands. Use of machine was demonstrated

Acknowledgement
Much gratitude goes to European Union for funding this work. The technical support offered by ICRAF, KEFRI, KFS, ADRA, Ministry of Agriculture, County Government of Baringo is highly appreciated. We also thank the staff of KEFRI, Baringo sub-centre for their professionalism in hosting the training. The active participation, cooperation and knowledge sharing by all the participants is highly appreciated without which this training would not have been achieved.

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