


# Forestry sector





Hives for Honey



Availability of Seeds – Multipurpose species



Non-Forest Products – Shea Butter, Gum Arabic



Small group – no need to duplicate technology analysis here

Communication – email / electronic “forum”

Chair – Kathy Mbondo

Membership Growth – targeted via CTC-N & attendees / NDEs

Reporting from Nairobi meeting (end April – early May)

Charter meeting – Immediate needs analysis (Chair driven)

# Energy sector



**Energy sector**  
**Solar**



## Solar technologies discussed for the Energy sector

Concentrated solar power

Solar PV farms

Solar home systems

Solar lanterns

## Findings for the Energy sector: solar

There is continuous improvement through R&D to produce appropriate cost effective products

Governments in the region have provided an enabling environment for the growth of the sector

Weak enforcement of standards have led to the influx of counterfeit products

High initial investment cost is hampering rapid deployment especially due to the high cost of storage (for lanterns and solar home systems)

The financing for mini grid systems is not available nor suitable

Renewable Energy Associations in the region like KERECA should organize result oriented advocacy to address the challenges in the market

Renewable Energy Associations should have an effective and up to date information management system accessible to the public

Renewable Energy Associations should coordinate with bureaus of standards and pre-shipment verification bodies to limit the influx of counterfeit products

There is a need to create channels of awareness about financing options available to the consumers



# Energy sector Bioenergy

# Bioenergy technologies discussed for the Energy sector



Biomass



Biofuels

## Key findings for the Energy sector: bioenergy

High potential for the uptake of both biomass and biofuels

Main opportunities include: huge market, finance available, local technology available

Key challenges include: lack of standards, public awareness, weak legal frameworks

Hurdle to overcome: how to make it sustainable through combination of land use, alternative fuels against a background of climate change?




Improve legal and regulatory frameworks, learn from good practice



Improve standards, build local skills and foster public awareness



Provide incentives to RET equipment/products



Promote R&D collaboration between research institutions and technology providers

# Energy sector Hydro/Wind

# Hydro and wind technologies discussed for the Energy sector

FOCUS ON OFF-GRID SOLUTIONS: WHY? LOW GRID PENETRATION RATE

Small hydroelectric power solutions (MHP)

Wind energy solutions (i.e. wind mills & wind turbines)

# SWOT Findings for the Energy sector: hydro and wind

**STRENGTHS:** Eco-friendly and clean\*, Easy deployable, technology maturity\*, have baseload potential, lower capital investment and maintenance cost, job creation, available resource maps (atlases)\*\* , wind is a manageable resource due to clear forecasts

**WEAKNESSES:** Lack of standards/regulations/policies, Site selection (Land issues), Unaffordable tariffs (power sales), Community management issues (if with Govt. involvement), Lack of commercial use for power, seasonal variations (for wind, intermittency)\*\* , Energy storage, Higher upfront costs\*.

**OPPORTUNITIES:** Local manufacturing\* & installation, Speeding up energy access to off-grid communities\*\*, income generating activities\*\*, innovative business models can be designed\*\*, significant technological improvements\*, possibility for community investment\*\*

# SWOT Findings for the Energy sector: hydro and wind

THREATS: Limited business models\*\*, lack of long term income assurance for the investor\*\*, Lack of political will\*\*

\*Applies to Small hydros only

\*\* Applies to both small hydros and wind

**NB: FOR THE ACTION-PLAN BELOW, THERE IS NEED TO ENSURE FLOW OF ACTIONS FROM SHORT, THRO MID TO LONG TERM.**



# Actions for the Energy sector: hydro and wind

**SHORT TERM:** Attractive business plans, Feasibility studies (incl. resources maps, hybrid systems analysis etc.), stakeholder engagement, technology investors/suppliers inventory, Nature of Government interaction (e.g. incentives, taxation, long term grid-plans), skills and competency development, standards/regulations/policies addressed

**MEDIUM TERM:** Align technologies with INDCs, Understanding of local financing mechanisms, create innovative financing mechanisms, promote local innovations, promote one-stop-shop to give investors' easy time to implement, identification of technology needs and creating public awareness for these needs, energy planning (urban, sub-urban, rural)

**LONGTERM:** Reliable Govt. policies, public acceptability, scalability (identify what and how is scalable), Ensuring energy security (community grid plans etc.)



GOVERNMENT  
CTCN  
INVESTORS  
CONSUMERS  
LOCAL COMMUNITIES  
FINANCIAL INSTITUTIONS  
ACADEMIA  
SOCIAL CHAMPIONS  
RESEARCH INSTITUTIONS  
CBO's  
NGO's  
FBO's  
DEVELOPMENT PARTNERS et cetera

# Water sector



## Technologies discussed for the water sector

A number of technologies were discussed, such as:  
Purification, water use efficiency, Reuse & Recycling, distribution

We selected to focus on the following:

1. Water storage

2. Water harvesting

3. Water shed management (did not manage to discuss)

## Issues discussed for Water storage

### Technical issues:

Quality control, delivery systems, geotechnical competence, access to flexible tanks

### Socio economic assessment issues:

Cost, Ownership of equipment and land acquisition, Poor governance, Monitoring and evaluation of water situation

### Water specific issues

Ground water recharge, evaporation and leakage, siltation

### Climate change effects:

Better climate scenarios, Cracking of tanks due to heat, flood resilience

Identify the suitable technologies to address the identified gaps.

Pre-feasibility study on suitable sites for identified technologies

Preparation of bankable projects

Long term objective:  
Ensure water availability for all users for enhancing the resilience of the communities

Collect and evaluate data considering the specific contexts of rural and urban areas

Evaluate demand-supply relations

Recommendations for enhances governemntal structure

Recommendations on overcoming risks resulting from land property issues that prevent governmental direct interventions for improved rain water harvesting (ownership of land)

Facilitate access to technology (e.g. water treatment for contaminated water)

# Agriculture sector





Drying, Milling, Pulping



Storage & Preservation (Cold Chain)



Food Extraction



Packaging / Bottling / Pelleting



Spinning / Weaving

Drought resistant/tolerant plants for fodder (Seeds quality, pest resistant)

Measuring & Testing Equipment

Queen bee tearing equipment to be promoted

Shea promotion (shorten time of maturity + commercialisation)

Finance

Issues peculiar to SMEs along complete value chain:

- Processing – Storage – Packaging – Quality Assurance – Marketing – Branding
- Linkages between SMEs & Small-Holder Farmers
- Policy Issues – regulation & tax

Dissemination of Information on Appropriate Technologies

Certification & Standardisation



Suggestion for holistic approach / programme for SMEs



Sub-Chapter on Processing and Value Addition (Down-stream)



Sub-Chapter on Production (Up-stream)