



Carbon Finance Toolkit for Community Development



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Structure

- Modular
- Accessible
- Different audiences:
 - Communities
 - Local Governments
 - Aid Agency Team Leaders (e.g. WB TTLs)
- Each module is independent
- Each complements the others – a package
- Simplest to more detailed
- Technology Reference Manual



COMMUNITY Module





Objectives

- Supports communities (achieve benefits)
- Supports those working with them
 - A framework and reference
 - Introduces concepts
 - Pictures and checklists
 - Examples of community projects
- Empowers community to make their own choices



Content

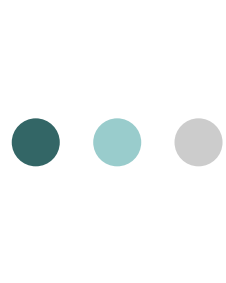
Question format for each audience

- Climate change
 - What is it? How does it affect us?
 - Who most affected, most vulnerable?
- Carbon finance
 - CDM
- How can carbon market help us?
- Developing a carbon project
 - What are the steps? How to go about it?



LOCAL GOVERNMENT Module

- Target audience:
 - local government leadership
 - those working with local government
- Different perspective from Community Module
 - same ultimate goal of benefitting communities
- Similar content as Community Module
 - more details, e.g. on suitable technologies and role of local govt.



Relevance of carbon funds to local government

- Impact of climate change on development programs
 - Need to take this into account:
 - Slow down development
 - Financial drain
 - Reduce tax base
 - Impact on services, infrastructure and resources
 - Poorer and marginal most affected
 - Need to build to withstand impacts
 - Need for early warning systems
 - Create alternative livelihoods (costs more)
 - Access carbon funds



To participate effectively

- Policies should promote sustainable development
- Need for a favourable investment climate
 - Clear regulations
 - Security of property tenure
 - Role of tariffs and concessions
- Capacity needs:
 - Government, community and CBOs
 - Awareness of opportunities and risks
 - Skills development to develop and implement projects



Roles, challenges and opportunities

- Local government plays different roles
 - Developer, facilitator (partnerships), stakeholder
- Challenges:
 - Time-scale (compare period in office)
 - Carbon finance only pays small part of project costs
 - Complexity of projects increases with many units
- Opportunities
 - Support communities (avoid raising expectations)
 - Bundle projects/PoAs
 - Benefits of gaining experience



WB and other AID AGENCY TASK Team Leaders Module

- Many regular activities of Aid agencies offer opportunities to build in emissions reduction activities.
 - Teams need to know opportunities
 - Help empower communities
- Lending and development is threatened by climate impacts
 - Infrastructure
 - Need for strengthening – e.g. bridges
 - Low-lying projects at risk
 - Increased costs
- Advantage of tapping carbon finance
 - Improve project cash flow
 - Help energy, sanitation, heating, water and/or transport needs



TECHNOLOGY Reference Module

- Supports other Modules – real examples
 - Tried and tested technologies
 - Provide finance for poor communities
 - Provide sustainable energy
 - Economically and environmentally sustainable
 - Small in scale, not complex
 - Not harmful and improve air/water quality



Importance of Technology

- Technology is vital:
 - Enables development
 - Uplifts communities
 - Saves money
 - Reduces emissions (replace, reduce, efficiency)
 - Helps deal with climate impacts
- Technology not just hardware
 - Processes and skills



Appropriate

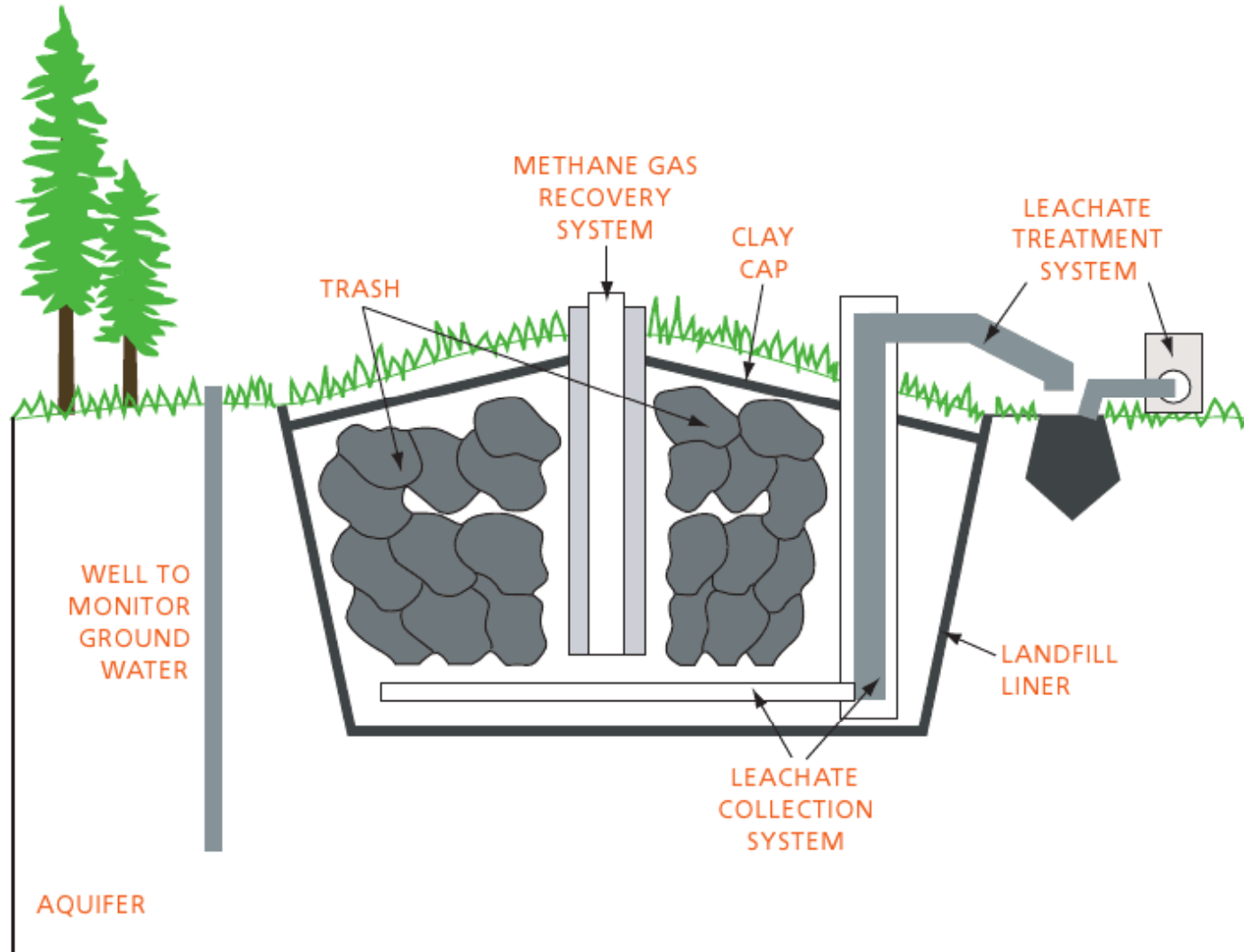
- Correct choice
 - Considerations for making an appropriate choice.
 - Pros and Cons of various technologies.
- Consider circumstances
 - Local needs
 - Local environment and weather conditions
 - Local resources
 - Local capacity
- Training and maintenance



Landfill (large-scale)

- Is there a medium to large landfill site?
 - How is it managed – smell, soil quality, vermin, rehabilitated?
- Bio wastes rot and give off Methane
 - Much more harmful than CO₂
- Flare or Extract?
 - Is there a need for energy close to the site?
 - Needs much more landfill than fossils
- More reliable than wind/sun

Modern landfill site

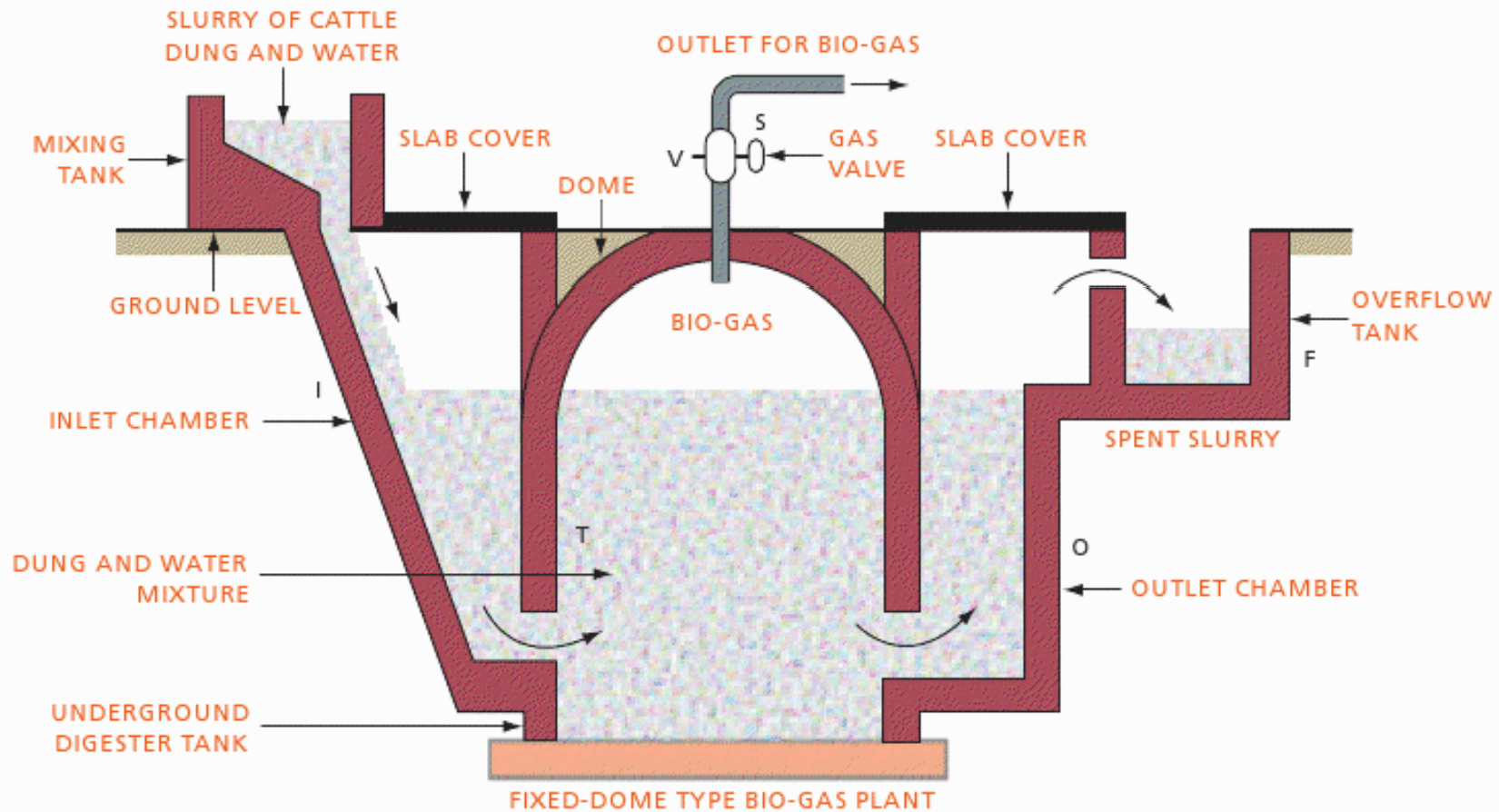




Biogas digesters (small-scale)

- Wastes available? A nuisance?
- Simple to build locally and more reliable than wind or sun
- Saves firewood and kerosene
- Reduces smoke from cooking
- Sludge, a by-product, good fertilizer
- Reduces transport of waste
- Separates bio-waste from other garbage – hygienic
- But
 - Needs a lot of water.
 - Community must be willing to participate
 - Methane is explosive if not careful.

Fixed dome biogas plant





Solar (small-scale)

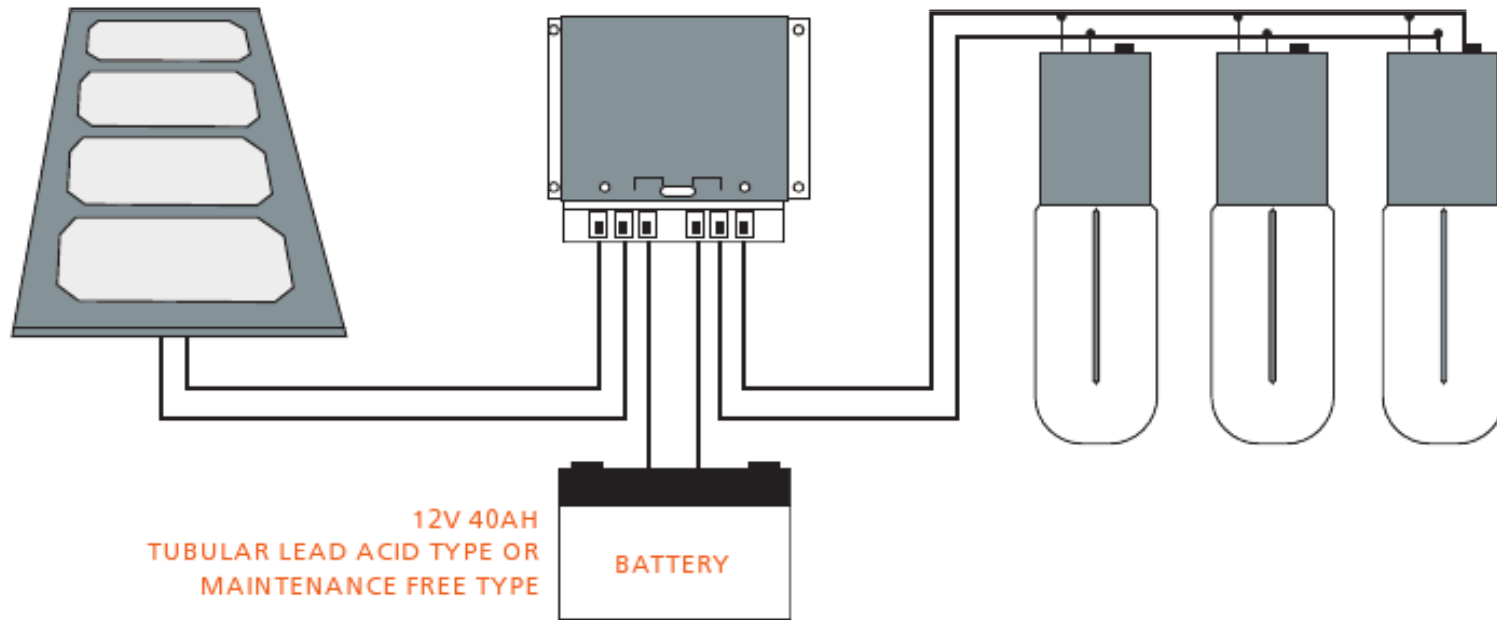
- Photovoltaic cells provide electricity for community/small business
 - Useful off-grid
 - Social and educational advantages
 - Suitable for small enterprises to install and maintain
- But
 - Needs reliable sunshine
 - Costs of cells is high
 - Needs micro-finance
 - Batteries need replacement

● ● ● | **Solar Home System**

SPV MODULE 12V/40 WP
(MOUNTED ON A LEAD TABLE)

CHARGE CONTROLLER
(FIXED ON THE SID OF THE BATTERY BOX)

LIGHTING LUMINARIES
EACH FITTED WITH 9W CFL
(CAN BE FITTED IN DIFFERENT ROOMS)

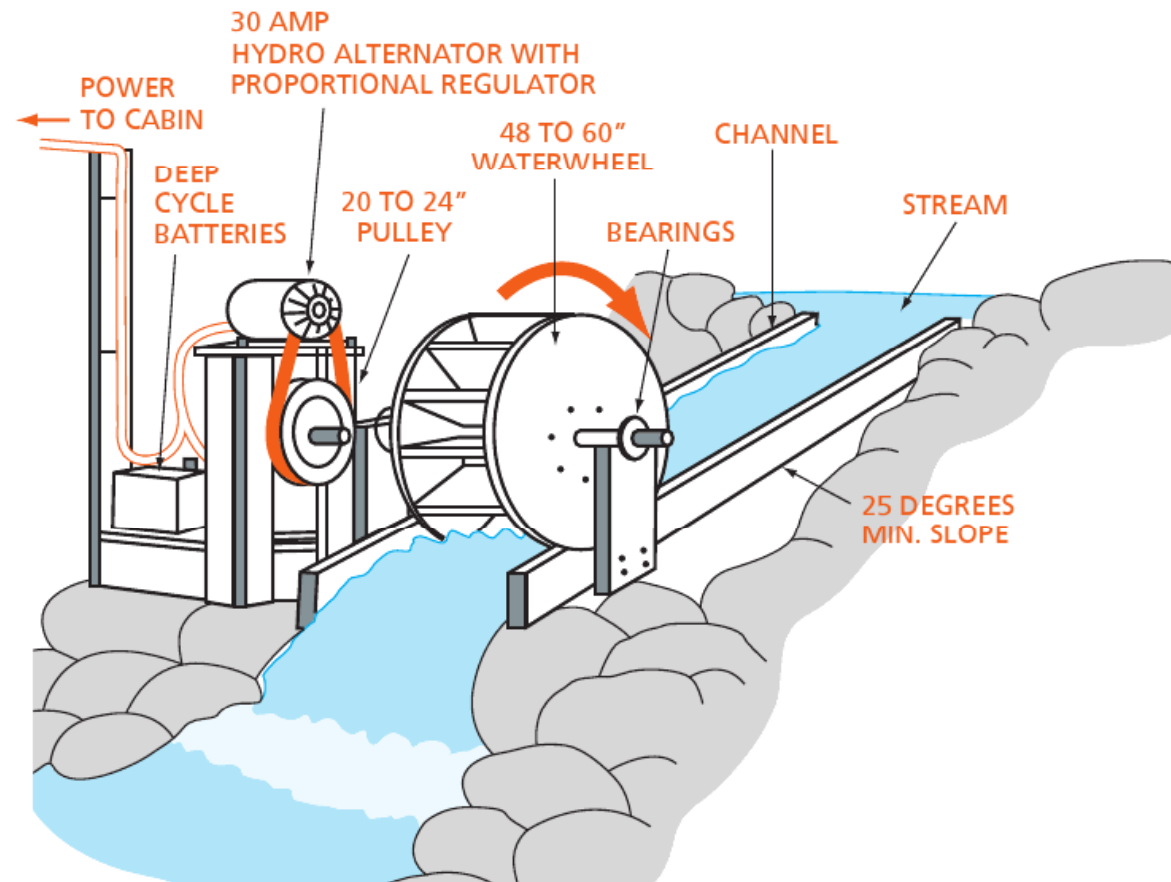




Micro-hydro (medium scale)

- An adjunct to grid – provides electricity: good for enterprises
- Potential for more power than solar or wind energy
- Simple technology, cheap and sustainable
- Social, educational and entrepreneurial advantages
- Provides job opportunities
- But
 - Requires sufficient running water near community
 - (Does not pollute water)
 - Flow is not always reliable
 - Large-scale plants not environmentally friendly

Micro-hydro





Considerations

Techn	R E	Size and Scale	Resources	Issues
Landfill	gas	1 (large)	Waste (dump). Energy-user nearby.	Flaring - air pollution. High CDM value. Reliable.
Bio digesters	gas	Many (small)	Waste (household and farmyard)	No open fires; clears waste, hygienic. Cheap and easy technology.
Solar Home Systems	elec	Many (small)	Sun. Micro-lending.	Capital cost; helps community and business. Needs maintenance.
Micro-hydro	elec	1/more (medium)	Running water that is nearby.	Helps community and business. Reliable.



Thank you

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