



Irish Aid

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**National Cookstoves Programme
Lesson Learning Workshop with Sub-Grantees
24th-25th July 2014, Mangochi**

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1. Background

The Government of Malawi has demonstrated a commitment to scaling up use of improved cookstoves to address environmental and health issues. In order to support the scale-up, a National Cookstoves Taskforce comprising members of the Government, civil society and development partners, was created in 2013 with funding support from Irish Aid. Through a variety of interventions that deal with production, marketing and dissemination of stoves the Taskforce aims to contribute to the achievement of the national target of 2 million cookstoves by 2020.

It was agreed that the Taskforce would take the initiative forward by implementing a strategy with the following outputs:

- Output 1: Creation of a supportive policy framework and strengthened Government capacity to drive delivery of the 2020 commitment and enforce quality standards
- Output 2: Improved NGO and private sector support to deliver 2020 target through a strengthened National Fuel Efficient Clean Cookstoves (Mbaula) Network and an extensive publicity campaign
- Output 3: Increased adoption of clean and improved cook stoves through a series of innovative and scaleable pilot projects

Under output 3, the Taskforce was charged with supporting six pilot projects in production and dissemination of stoves. Following a call for proposals, suitable projects were selected and the following institutions were supported with a EUR 20,000 grant to deliver their projects:

- Area 55
- Development Technical Assistance Services (DeTAS)
- Foundation for Community Support Services (FOCUS)
- Jesuit Centre for Ecology and Development (JCED)
- Maleza
- Organisation for Sustainable Socio-Economic Development (OSSEDI)

Each institution was charged with producing and disseminating 3,000 stoves (of a technology of their choosing) to generate learning on stove production and marketing and contribute to the 2 million target drive. A lesson-learning workshop was held with all six sub-grantees to learn from their experiences, document best practices and gather recommendations for future interventions of this kind.

2. Summary of findings and achievements

- * Total number of stoves produced 15,446 (against a target of 18,000)
- * Total number of stoves disseminated 15,019 (against a target of 18,000)
- * Very high female participation, 78% of all people trained were women
- * People have acquired new skills and have engaged in income-generating activities
- * Members of staff from the different institutions have increased capacity to manage fuel-efficient stoves projects

Different models were used for the management, production and marketing of the stoves. A summary of the pros and cons for each is presented below.

Management: Groups were either managed by an entrepreneur or were jointly managed by the group

Group Pro	Group Con	Entrepreneur Pro	Entrepreneur Con
Mutual accountability	Less direction	Promotes local ownership of intervention	Person might leave
Support and motivate each other	Difficulty establishing responsibility	Faster problem solving	Relationship with group might turn sour
		Ease of communication	Less accessible due to need for a starting capital

Production: Within groups, individuals either learnt all aspects of stove making or specialised in specific tasks

Individual Pro	Individual Con	Assembly Line Pro	Assembly Line Con
More flexibility	Potentially reduced quality	Provides specialisation	Production cannot function unless all group members are present
Faster rate of production	Lack of skills specialisation	High quality	Slower rate of production

Marketing: Stoves were either disseminated through established businesses or through young, informal workers

Established Business Pro	Established Business Con	Informal Business Pro	Informal Business Con
Easier to track sales	Fixed prices (usually more expensive)	Mobile	Harder to track sales
Business experience	Requires distributors	More flexible on prices (usually cheaper)	Require more support in business management

3. Key recommendations

Following discussions and consultations between **technical/programme** staff the following recommendations were made:

Production

- A pre-training assessment is needed (ie. to assess clay source, market, transportation) to ensure groups that are set up are viable.
- Clay testing is crucial in assuring the quality of stoves and should always be conducted, even in sources that have already been used.
- Durability testing should be introduced to ensure stoves put on the market will function under day-to-day cooking conditions.
- Producers should be mentored on how to manage their time so that they can farm and make stoves at the same time. This will reduce delays in production and ensure a consistent supply.
- Sustainable biomass supply is needed to assist groups with production (ie. firing). Environmental management/afforestation should be promoted alongside all stove production activities.
- If production happens during the rainy season, appropriate drying and storage shelters need to be constructed.
- Regular and ongoing support and monitoring are necessary to address challenges, motivate people and ensure high quality production.
- Passion and dedication are key to the success of any production group. Therefore, people interested in joining a production group need to be made aware of their roles and responsibilities as well as the possible risks and challenges involved.
- A business-driven approach is necessary to motivate groups therefore using an income-driven approach will drive production.

Marketing

- Marketing is equally as important as production. In order to motivate groups to keep producing, demand must be created. Therefore, a strong marketing component should be a part of all stove project planning.
- Different marketing avenues should be explored (ie. churches) and marketers should be mentored on how to access different markets.
- There is a need to change the perception that fuel-efficient stoves are for use in rural areas only. Urban demand should be created, to help support rural production and meet the 2020 target.

Sub-grantee's role

- All technical staff should know the dimensions of the stoves and quality control tools, so they can identify any eventual problems and better ensure quality production.
- Staff should have a constant presence in the field to mentor and support groups.
- Staff should respect indigenous knowledge and listen to the producers. This will ensure an open dialogue with production groups, which will support problem solving.
- Staff should engage community leaders in the project as it has been found that a strong participation on their part contributes to the project's success.
- Technical staff should be hired by other technical staff to ensure people with the right competencies are selected.

Following discussions and consultations between **financial** staff the following recommendations were made:

- Finance staff should work hand-in-hand with the technical team. This will help ensure budgeting is realistic and expenditure is maximised to achieve project targets.
- Finance staff should be allowed to visit project sites so they can understand what is happening on the ground.

4. Recommendations to National Cookstoves Taskforce

During the workshop, sub-grantees were given a chance to provide feedback to the Taskforce. A number of recommendations were made to help improve future pilot projects.

Coordination

- The Taskforce should hold a meeting at the beginning of projects to clarify its role and responsibilities. The agreed role of the Taskforce should then be made more explicit to sub-grantees.
- The Taskforce should more closely monitor, advise and support sub grantees in implementation (ie. more support visits, review meetings).
- The technical know-how of Taskforce members should be made more accessible to sub-grantees, to help improve quality of implementation and standardise operations. More Taskforce members should engage with sub-grantees to motivate them and provide access to different knowledge.
- NCT to share roles and responsibilities to get a better understanding of what is happening on the ground-more NCT members to visit not just the coordinator.
- The Taskforce should consider increasing the pilot phase time as nine months were found to be insufficient.

Communication

- The Taskforce should provide more regular communications with sub-grantees, to monitor progress, offer support and make sub-grantees aware of other Taskforce activities.
- Taskforce members must provide more notice before organising visits and events to allow sub-grantees to adequately prepare.
- Feedback should be provided on plans and budgets provided by sub-grantees to ensure these are realistic and allow for any issues to be resolved before implementation starts.
- Feedback should be provided following visits from Taskforce members, to allow sub-grantees to improve during project lifetime. This can be in the form of feedback sessions or written reports, with action points.
- The Taskforce needs to lead on cross-learning and communication between sub-grantees.
- The Taskforce must develop common/standardised messages for the chitetezo mbaula.

Finance

Sub-grantees should be supported with initial budgeting training to determine appropriate expenditure to achieve target

5. Area 55

Profile of the institution

A consulting firm based in Lilongwe, working on promotional/marketing activities of Clean Cookstoves of various technologies (including rocket barn, institutional cookstove-mayankho, chitetezo mbaula).

Approach

Worked through entrepreneurs, whereby each group was managed (owned) by an individual and Area 55 was supporting the entrepreneur, not the group. The entrepreneur mobilised resources from the communities and had to pay back 500 stoves to Area 55 in return for the support offered.

Achievements of the project

- Mobilised 3 production groups in Blantyre and Salima (Machinjiri in Blantyre; Kalilyolo and Mapiku in Salima)
- 45 people were trained in stove production and marketing (13 men and 32 women)
- Groups were supplied with stove production materials (ie. paddle moulds, quality control tools)
- These groups produced 2,871 stoves, and a total of 6,781 stoves were disseminated (including stoves produced under other groups)

Challenges faced

- Clean cookstoves are seen as only appropriate for rural areas.
- The project started during the farming/rainy season which meant people were not as committed to stove production as they were also busy working in their fields.
- Starting the project in October coincided with the start of the rainy season, which delayed drying of stoves. Area 55 did not budget for drying shelters but each prod group needed one so they were constructed anyway.
- Machinjiri group lacked ownership (there was no entrepreneur), therefore during the farming season no one pushed for production and the group was producing at a very slow pace.
- Quality was not consistent and generally low.

Lessons learnt

- Passion for cookstoves is key for the success of any initiative
- Working through an entrepreneur facilitates communication and makes solving issues easier, thereby speeding up production. It also leaves decision-making with the entrepreneur and removes the direct link between communities and NGOs, allowing greater local ownership and accountability. Having a group 'owner' also provides direction to the group. However, the risks are that the person might leave the community (due to other employment or marriage) in which case the group would likely be dismantled.

Recommendations

- There is a need to focus on marketing and not just production. A marketing component, and adequate funding, should be included in all stoves planning (because production without sales does not motivate groups to produce).
- Mindsets need to be changed as chitetezo stoves are seen as only appropriate for rural areas.
- Environmental management activities, like tree planting, should be integrated. For example, Area 55 bought 10,000 seedlings for the best production group and they planted trees and then donated seeds to nearby villages, this ensured the group had a sustainable use of wood for firing the stoves. It also acted as an incentive for quality production.
- Shelters should be built for drying during the rainy season.
- A risk assessment should be carried out before engaging an entrepreneur to minimise the risks of working through one person.

6. DeTAS

Profile of the institution

A consulting firm that offers services in social transformation processes, biomass energy conservation, participatory extension methods, monitoring and evaluation and topical research, agriculture and food security.

Approach

Adopted two production strategies (community strategy and assembly line) and two marketing systems (mainstream marketing-through established entrepreneurs and social marketing system-using social gatherings to sell stoves). Also developed a mass production strategy to guide production. It supported the production of chitetezo mbaula.

Achievements of the project

- Mobilised 2 groups in Mzuzu (Dunduzu and Kavuzi)
- 22 people were trained (4 men and 18 women)
- High female participation encouraged
- These groups produced a total of 3,260 stoves and disseminated a total of 747

Challenges faced

- Rains delayed production (ie. drying and firing) and waterlogged clay sources
- Not enough storage and drying space
- Termite attacks ruined moulded stoves
- Majority of stoves broke as soon as they were used (despite the clay testing) and production had to be stopped

Lessons Learnt

- Ongoing monitoring and support, and participation, ensure high quality production.
- Line model of production is more efficient and improves specialisation of producers.
- Commercial production is more sustainable.
- Working with established entrepreneurs meant they already had businesses so had fixed prices but it was easy to monitor each stove through their sales books. Young, inexperienced entrepreneurs had more flexible prices and were mobile, but they were harder to monitor.

Recommendations

- Use of a business-driven approach (producers concentrate on production, marketers do the promotion all for an end goal which is the sale) allows people to see stove production as a viable business, which can improve livelihoods, and not just an Income Generating Activity or supplementary source of income. This also motivates people.
- There is a need for purposefully built storage space that can cater to the desired number of stoves.
- Weather and seasonality needs to be taken into consideration in project design (and implementation).
- Curing pits should only be dug in elevated land so as to access clay during the rainy season.
- Durability tests should also be conducted to test stoves before dissemination.
- A risk analysis should be conducted before embarking on a project, and the Taskforce should mentor sub-grantees on how to minimise risk.

7. FOCUS

Profile of the institution

A local NGO whose vision is a self-reliant and healthy community with improved quality of life that is aware and able to demand for information and services.

Approach

Used the conventional group approach, whereby a whole group (of about 20-25 people is trained in all aspects of stove production). It supported the production of chitetezo mbaula.

Achievements of the project

- Mobilised 7 production groups in Karonga and Chitipa (Nowa, Kasisi, Silu, Lupaso, Chilambilo, Twiyure, Kafikisira, Chumachili Mudongo)
- 215 people (37 men and 178 women) were trained in stove production
- Paddle moulds were provided to the groups
- These groups produced a total of 2,547 stoves and disseminated 1,227

Challenges faced

- A delay in the supply of paddle moulds, caused by the supplier in Lilongwe, delayed stove production. The heavy rains have greatly affected production and firing of produced stoves.
- Due to the timing of the project, production clashed with farming.
- Heavy rains affected firing of stoves.
- The first round of stoves produced came out black in colour and this demoralised the groups (but they carried on).
- One group disbanded as they had other engagements, which made them uncommitted to project activities (the stoves they had produced all broke before firing as they had not taken care of them).

Lessons Learnt

- Initiatives that have strong participation by community village heads are more likely to be sustained and yield more results.
- Firing of stoves during the rainy season needs to be managed properly to avoid compromising the quality of the stoves.
- Rice husks can also be used for the firing of stoves.
- Ant hill clay can also be used for stove production.

Recommendations

- Group members' expectations must be managed (as they have high expectations of making economic gains from joining production groups) and they must be made aware of the possible risks and challenges.
- Close monitoring and mentorship of groups is needed to sustain them.
- Village heads should be engaged in stove activities.

8. JCED

Profile of the institution

JCED is a development organ of the Jesuit Fathers in Malawi. Its vision is a society where the local community promote environmental integrity and vulnerable households have a decent livelihood.

Approach

Used the conventional group approach, whereby a whole group (of about 20-25 people) is trained in all aspects of stove production). The group members worked full-time Mondays to Fridays. Stove dissemination mainstreamed in church activities. Operated in urban areas, so provided firewood. It supported the production of chitetezo mbaula.

Achievements of the project

- Mobilised 1 production group and 1 marketing group in Likuni (Lilongwe)
- 25 producers (5 men and 20 women) and 15 marketers (8 men and 7 women) were trained
- These groups produced a total of 4,219 stoves and disseminated 4,164 stoves
- Will support 2 additional production groups (to meet demand) with other funding. This will allow JCED to try implementing both the entrepreneur approach and the assembly line approach and compare outcomes.

Challenges faced

- The marketing group disbanded, as there was not enough production to meet the demand they were creating.
- Moving beyond the 'church market'.

Lessons Learnt

- Dissemination of stoves through churches and church activities is extremely effective. However, it is also limited so other marketing avenues must be explored and groups supported to identify these.
- Biomass supply is equally important to stove production.
- Spending across the value chain makes for efficient use of resources.
- People need to be committed to the cause, so they will support each other to achieve their target even when there are problems. Income drives commitment.
- Regular mentorship and facilitation promotes success of group, and should only stop once the business is up and running.

Recommendations

- Sharing of learning should continue, as it will help achieve the 2020 target.
- Institutions should think of establishing biomass supply centres (ie. bamboo).
- Groups should either be salaried or be assured of a market so that they can be sure of an income and this will increase their commitment.
- There is a need to set up processes for carbon finance so activities can continue beyond grant money.

9. Maleza

Profile of the institution

A national NGO contributing to the economic empowerment of smallholders in Malawi.

Approach

Mobilise whole groups that shared tools, but worked as an assembly line, with each person specialising in one task. Used stove agents to market the stoves. Supported the production of chitetezo mbaula.

Achievements of the project

- Mobilised 1 group in Kasungu (Makanda)
- 27 people (2 men and 25 women) were trained in stove production
- The group produced 700 stoves and 700 stoves were then sold

Challenges faced

- Elections interfered with production
- Food shortages, caused by the lean season, meant people divided their time between finding food and making stoves, which reduced the rate of production
- Transportation of stoves during the rainy season

Lessons Learnt

- Groups can consider introducing a food incentive (ie. provision of a meal or maize) to encourage people to produce during the lean season.
- Producers were motivated to produce as they sold their stoves to the stove marketer who in turn sold them to communities.
- The assembly line approach contributed to production of very high quality stoves as people specialise.
- Due to the slower rate of production in the assembly line approach, it would be appropriate to create incentives, either using a salaried model or fixing targets, to speed up production.

Recommendations

- Funds should be allocated to run an afforestation programme alongside stove production, especially for production groups (who use firewood for stove firing and so require a continuous supply).
- People who initially demonstrate interest in stove production need to be made aware of the responsibilities they will face.

10. OSSEDI

Profile of the institution

A local NGO and a member of the Global Alliance for Clean Cookstoves, whose mission is to engage an innovative development process critical to the poor and marginalized communities in general in order to contribute effectively to sustainable development in health, literacy, economic conditions, ecological balance, and enable women and children to access their rights to food, education, and development in Malawi.

Approach

Used the conventional group approach, whereby a whole group is trained in all aspects of stove production, but promoted the use of a cluster approach and thus mobilised one group in each cluster.

It supported the production of chitetezo mbaula.

Achievements of the project

- Mobilised 3 production groups
- Trained 60 people (25 men and 35 women) in stove production and marketing
- These groups fired a total of 1,849 stoves and disseminated 1,400 stoves
- Facilitated construction of 9 kilns and 9 sheds

Challenges faced

- Groups were mobilised too far from the clay source and there was a lack of a cost-effective way to transport the clay.
- Resistance from some people to allow excavation of pottery soil in their land
- Accessibility to markets was limited due to focus on village level promotion
- Difficulties in accessing firewood for firing of stoves
- Project activities coincided with farming schedule
- Initially poor participation from people as it was a new initiative (got better as project went on)
- Expenditure on stove production was on the lower side

Lessons Learnt

- Need to mobilise groups if within a certain distance to the basic materials (ie. clay).
- Households close to a fire wood source see less added value in the fuel-efficient stoves.
- Nine months is not enough for a pilot phase because it takes time for processes to start and for results to show.

Recommendations

- Sub-grantees should be supported with initial budgeting training to determine appropriate expenditure to achieve target
- Stoves must be accompanied by environmental management (afforestation) to have real impact
- The taskforce should lead on coordinating communication between sub-grantees as an element of competition (especially with regards to carbon finance) meant this did not take place spontaneously.
- Future pilots should be longer in duration.

11. Conclusions and way forward

The workshop provided a chance for sub-grantees and Taskforce members to reflect on the pilot project and a great many lessons learnt and recommendations arose from this interaction. Although funding for the pilot projects has ended, most production groups are continuing production and most institutions are continuing to mobilise more production groups. Despite challenges, significant achievements were made and in all cases the projects have initiated processes that will contribute to the achievement of the 2020 target.

