

Partnership for Clean Indoor Air



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Project Background

- Objectives of Cambodian Fuelwood Saving Project (CFSP)
 - Dissemination of ICS
 - Continuation of R&D efforts
 - Establish institutions
- Initially in 6 provinces of Cambodia
- Collaboration between
 - GERES
 - MIME
 - EU
- CFSP Phase 1 1997- 2001
 - Stove design
 - Trained producers
- CFSP Phase 2 2001- 2006
 - Commercialised distribution
- Phase 3 2006- Present
 - Up scaling to national level

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Better Air Quality 2008

Air Quality and Climate Change: Scaling up win-win solutions for Asia

12-14 November 2008

Imperial Queen's Park Hotel, Bangkok, Thailand

Technology Development

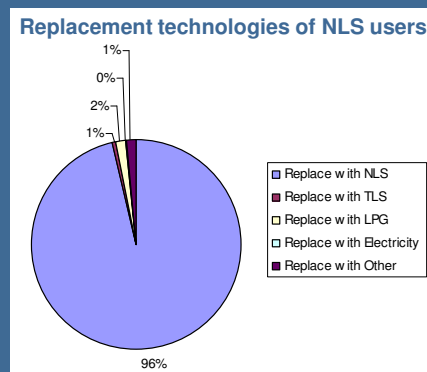
- New Lao Stove
- 21% fuel saving
- Since 2003
 - Sold over 300,000 stoves
 - 308,424 t/CO₂
- Competitive advantage
 - 3 year life time + fuel savings
 - Additional Profit of US\$0.38 per stove
- Market channels



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Technology Performance

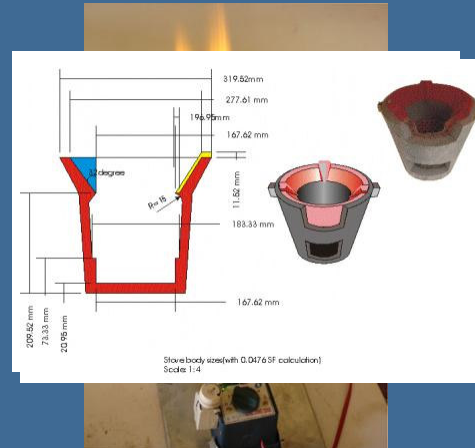
- Carbon finance entails extensive monitoring
 - Performance in the field
 - Producer/ retailer sales
 - Bi-annual user surveys
 - What type of user feedback did you get?
 - High user satisfaction
 - Too heavy
 - Too expensive
- Evolving monitoring system
- Stove tracking



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Technology Needs/Quality Assurance

- NLS have 32% market share
 - 68% still use other technologies
- NLS users are urban charcoal users
 - Growing demand for LPG
 - Rising price of LPG
 - Free to collect fuel
- T-LUD stove – next generation gasification
- NKS stove – fuel savings for rural populations
- Commercialised adaptation
 - Air flow control
 - Wood supply
- Quality control
 - Producer samples WBT
 - Standardised dimensions
 - Quality control labels



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Project Scale-up

- Carbon finance provides long term output based revenue stream
 - Revenue is used to maintain standards
 - Research and development
 - Outreach and education/marketing
- Commercial advantage
 - Offer training to traditional stove makers
 - To keep monitoring records
 - Participate in quarterly stakeholder meeting
 - Disseminate through market channels

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Challenges and Solutions

- Methodological barriers
 - Had to wait for an approved methodology
 - High demand for stove projects
- Balance between rigor and practicality
- Record keeping
- Tracking stoves for life time and efficiency data

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Lessons learnt- Thinking in phases

Year 1	2	3 – 4 – 5	6 – 10
Phase 0 – R&D Technology development, few prototypes, adapting to local setting For Carbon, do... NOTHING	Phase I - Pilot Dissemination test, dozens of families, few villages Write PIN, conduct baseline studies, design monitoring system, write PDD	Phase II - upscale Dozens of villages/communes, many districts, one or two provinces Deploy monitoring system, register, validate, verify, find Carbon buyer	Phase III – state/national Hundreds/thousands of villages, cities, entire state(s), policy work Invest in Phase 0-I of next technology Upscale baseline, upscale monitoring, verify, QA/QC
You may use resources from	Small/private donor Own funds Partner (equity) Venture capital	Conventional donor Own funds Partner (equity) Pre-finance from large Carbon buyer	Major donor Own funds Partner (equity) Sales to large Carbon buyer OTC trade, ACX

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Engaging BAQ Participants

- Access to opportunities for carbon finance
 - Trainings from GERES
 - Carbon Solidarity Asia
 - Share learnings
- Improve confidence of data
 - Carbon finance is about real, measurable emissions reductions
 - Learning curve

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