

Pyrolysis cook stove haiti



1. Motivation for project

Haiti is deforested, now falls the last mangrove forests



2. project idea/concept

Closed natural process for cooking

Tagesumsatz für 100 Pyrolysekocher

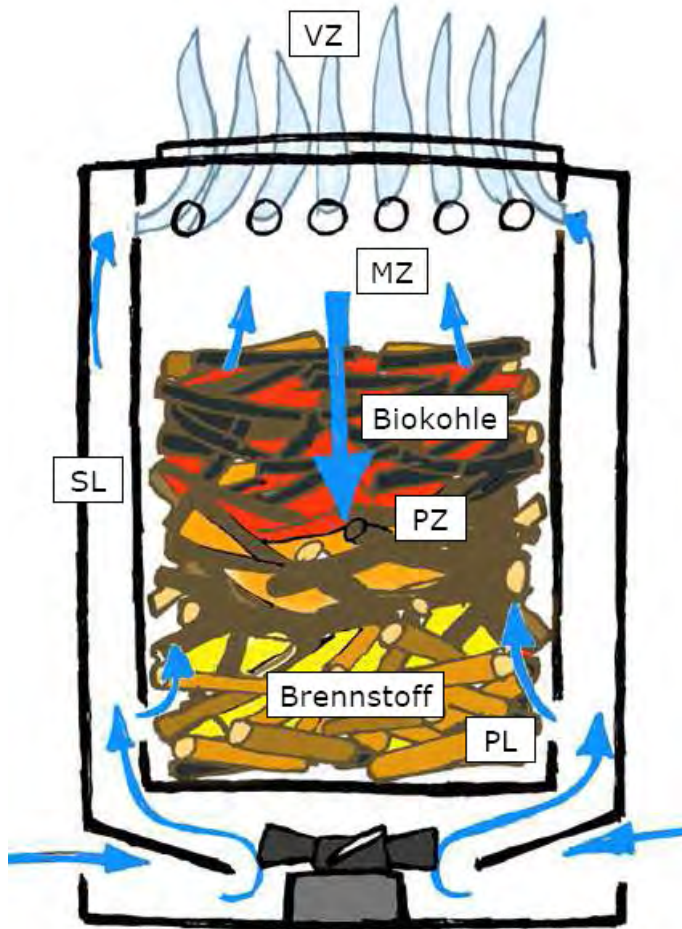


3. Main Targets

- Stop the **deforestation** (climate and resources)
- Promotion of **independent business** (economics)
- Protection against **smoke** when cooking (health)
- **Terra Preta**, Biochar to improve soil (nutrition)

4. Technology stoves

Pyrolysis, combustion with insufficient oxygen



Air supply control:

- **Primary air, PL** ($\lambda = 0.2$) flows from below into the fuel and flows upward to the PZ
- **Secondary air, SL** ($\lambda = 2.5$) is in the double-wall pre-heated and flows into the MZ

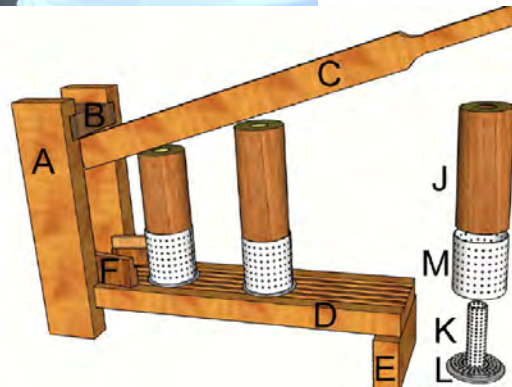
Quelle: www.ithaka-journal.net, modifiziert durch Stephan Guizwiller

5. Technology combustible

Waste biomass into fuel



- Fuel briquettes out of rubbish takes **waste into source of energy**
- Materials like **agricultural residues** (dry leaves, grasses etc.) from banana, sugar cane, riz husk, straws, sawdust...
- 20 to 30% mixed up with **waste paper** and cardboard



6. Beneficiaries

Cooking and briquette manufacturer



- People who need to pay charcoal
- Middle and poor people near town
- Briquettes manufacturer in the country side
- Income through briquette instead of charcoal
- Environment and Forest

7. Acceptance by the beneficiaries



Participation beneficiaries

- low tech approach
- local production
- practical demonstrations on site
- motivation for own experience
- demonstrations by Haitian people in Creole



8. Succeses and difficulties



technology acceptance

- + Meets their cooking habits
 - + model for a self made press
 - + own experience of fuel composition
 - + Embed results from user studies
-
- cookware will be black
 - press only for small quantities
 - paper is not always present
 - reloading of burning material disturbing
 - planning skills are missing

9. potential for improvement



Better co-creation

- Formation and animation
- Decision makers as a pioneer
- Set an example apply yourself
- Motivation for use of planning skills



Thanks

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Initiateur du projet
Conseille technique de la foundation main dans la main suisse

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