

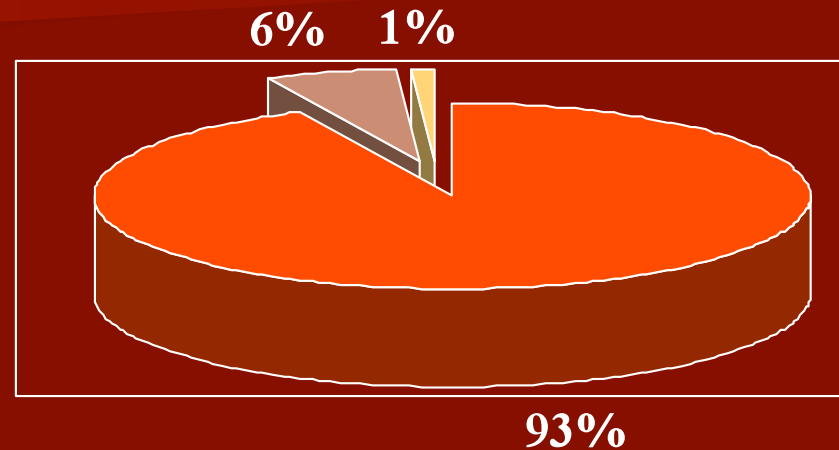
The logo for GTZ (German Technical Cooperation) is displayed in a white square. It consists of the lowercase letters 'gtz' in a bold, sans-serif font, colored in a dark red or maroon shade.

Promotion of Renewable Energy and  
Energy Efficiency Program

# A Stove Rockets Uganda

By John Kuteesakwe

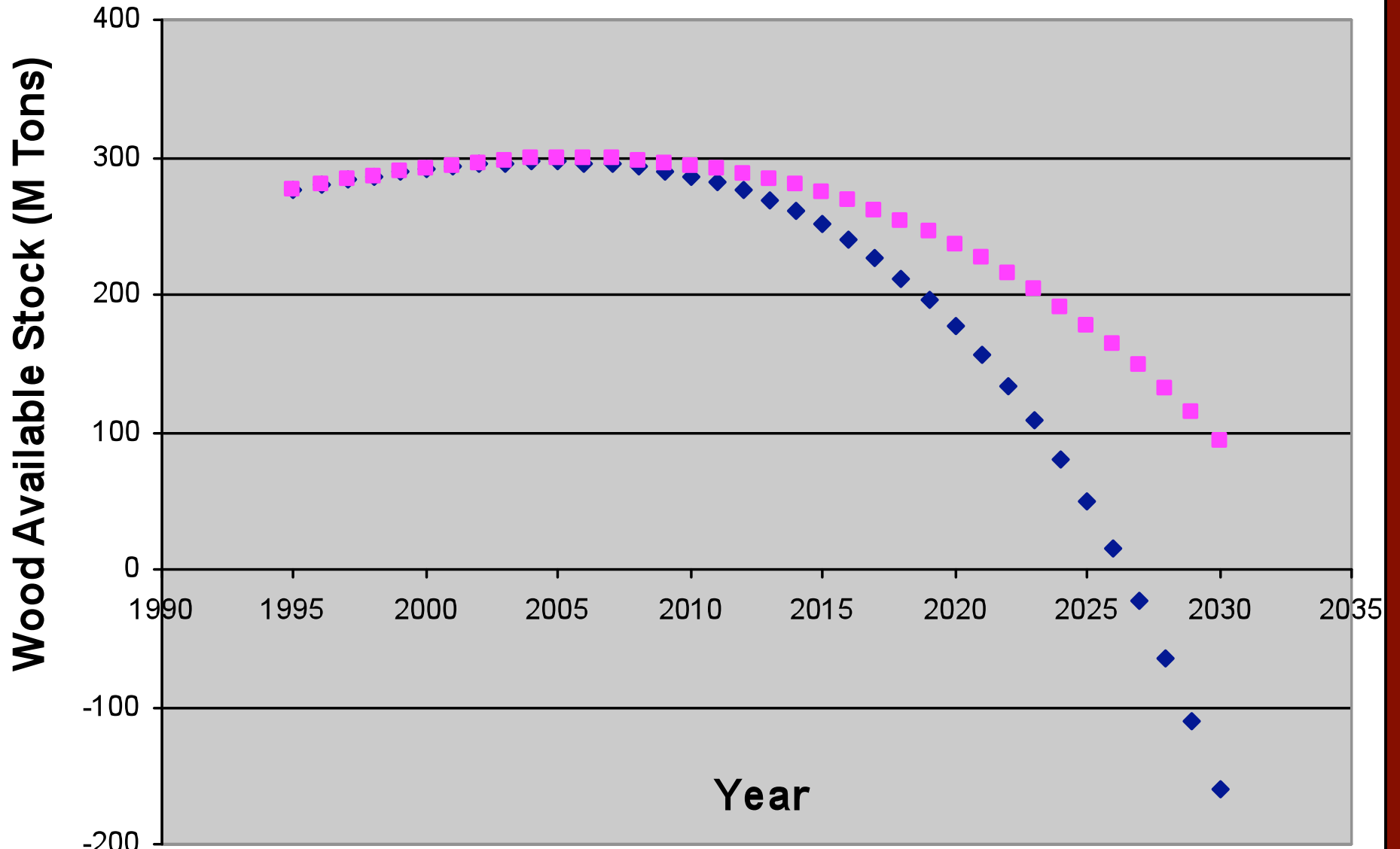
# ENERGY SITUATION IN UGANDA



■ Biomass      ■ Oil Products  
■ Electricity

- Biomass represents 93% of the national energy consumption
- 97% of the households use biomass for cooking
- By 1995, the biomass demand had already exceeded the sustainable supply

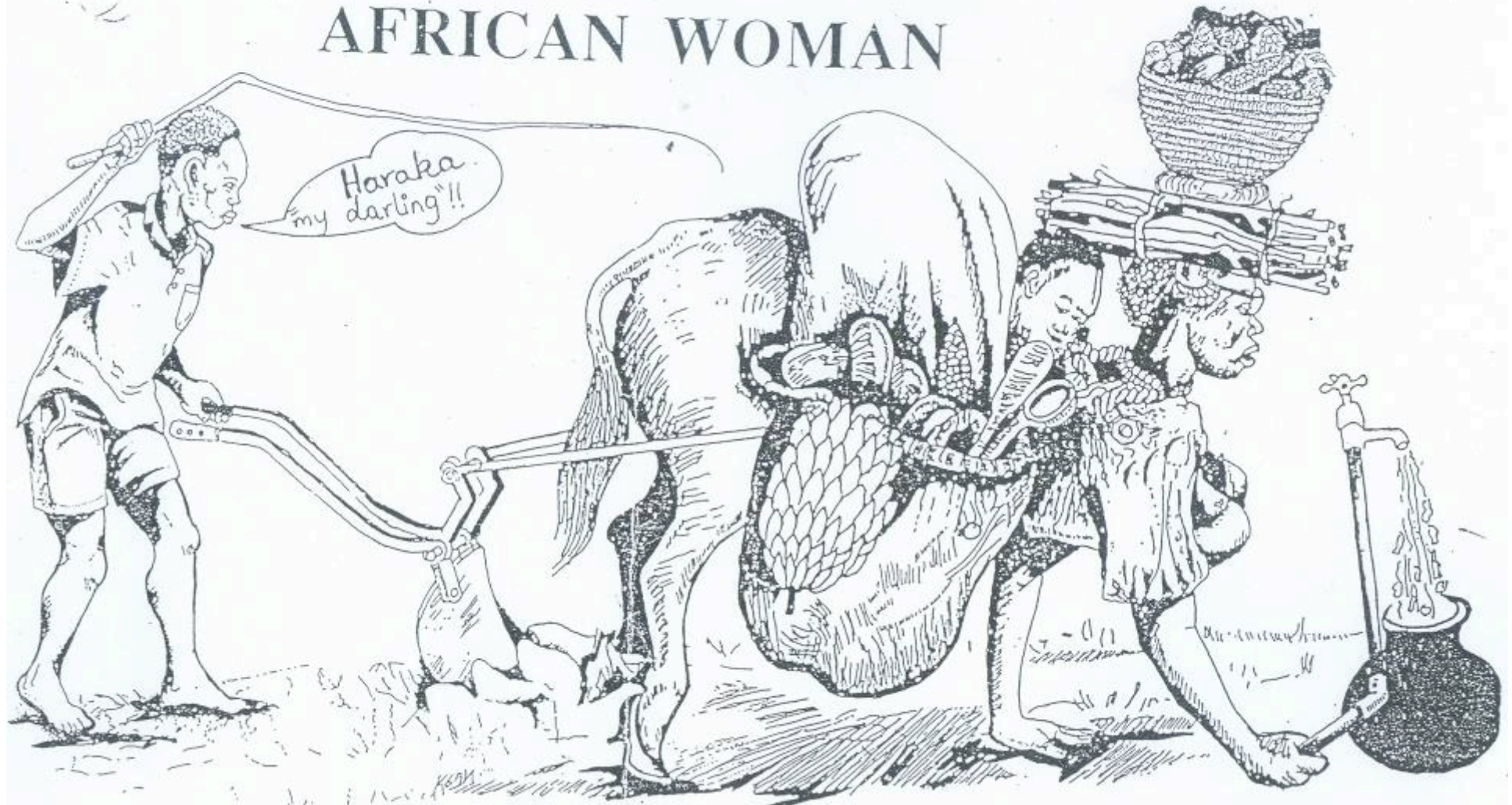
# Decline of Biomass Standing Stock



- ◆ Stock Without Reforestation & Improved Technologies
- Reforestation and Woodsaving Stoves



# CREDENTIALS OF THE AFRICAN WOMAN



The most efficient beast of Burden

# Driving factors for Biomass Crisis

- Use of inefficient cooking devices – e.g. the 3 stone fire
- Rapid population growth (3.4%) – *more people ... less biomass*
- Poverty – *retains population on biomass ...can't afford alternatives*





# Mitigation Concept

- Measures to reduce biomass demand involve the dissemination of efficient stoves
- But the impact of such efforts depends on the magnitude of intervention
- A minor scale intervention cannot offset a major scale crisis of biomass energy: the problem grows faster than the solution
- Ordinarily, long “pilot” projects have been the most fashionable, yet the practical problems don’t ‘pilot’ for long: they tend to scale up rapidly



*The problem*



*The solution*



# Scaling up is the valid Answer

- The full-scale energy problem can only be neutralized by scaling up the energy solutions
- For biomass, it involves the scaling up of improved stoves to cover the bigger proportions of the vulnerable population
- To achieve this, two considerations are critical:
  - The design of the technology and
  - The design of the dissemination strategy

# The Stove Dissemination Strategy

- The dissemination strategy is as critical as the stove design
- A strategy that is discordant with the socio-economic framework achieves one result: missing the target group effectively
- Traditional commercialization can make proper sense in the urban communities, where all livelihood items have to be purchased
- However, in rural poor communities the mode of commercialization needs modification
- A reasonable stove price in the urban community may be a prohibitive price in the rural
- So GTZ-Uganda uses two parallel strategies: Exclusive commercialization and semi-commercialization

# Exclusive commercialization

- GTZ-Uganda supports a pure commercialization of stoves by supporting the private dealers. The strategy involves:
  - Identification of the authentic private stove dealers
  - Offering training in the stove design and production
  - Supporting the marketing campaign and operating tools
  - Supervision and quality control
- But this strategy is appropriate for the upper social economic class consumers, including:
  - the higher income households, especially in the urban centers,
  - the social institutions and
  - the commercial enterprises

# *Metal Rocket Household Stove*



# *Rocket Institutional Stoves*



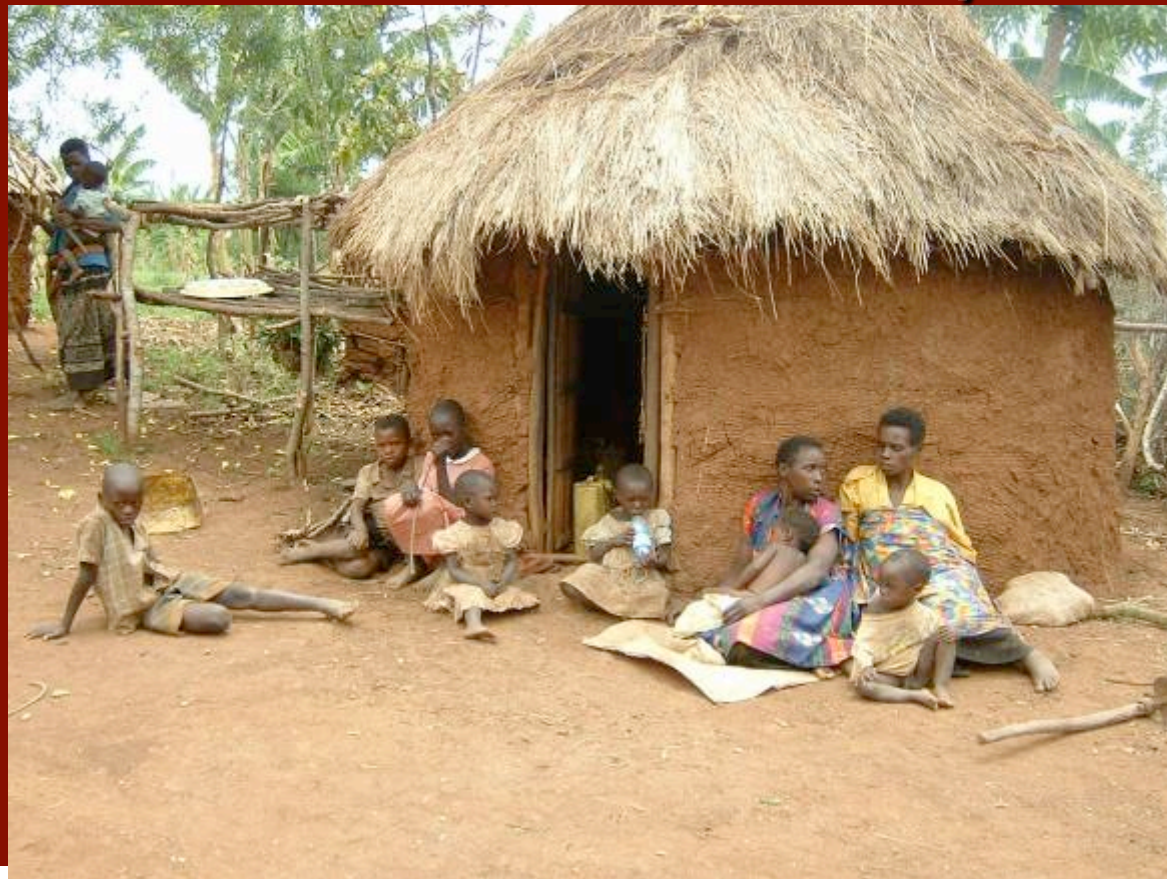
*Mobile type*



*Fixed type*

# But what about the poor?

- They actually constitute the majority of the population
- They are the ones most severely affected



# Typical Poor Household in Uganda



# Semi-commercialized Approach

- Is an adaptive strategy for the dissemination of a mud rocket stove
- The stove production process is demystified, decentralized and localized
- Poverty does not hinder affordability

## MATERIALS

- cheap
- locally available



## TOOLS

The very basic tools for survival

## SKILLS

Simplified and multiplied

## DISTRIBUTION

Production at the consumer location



# Operation of the Semi-commercialized System

- The production is a joint venture between the producer and the consumer
- The consumer is not a passive recipient but an active production companion
- The production tasks are shared between the two parties:
  - a) The family provides and prepares all the construction materials and pays a small labor fee to the stove builder
  - b) The builder constructs the stove with the family
  - c) The family does the finishing
- Dissemination is implemented by NGOs



# Training Pyramid

GTZ/  
PREEEP

Identify &  
train NGO

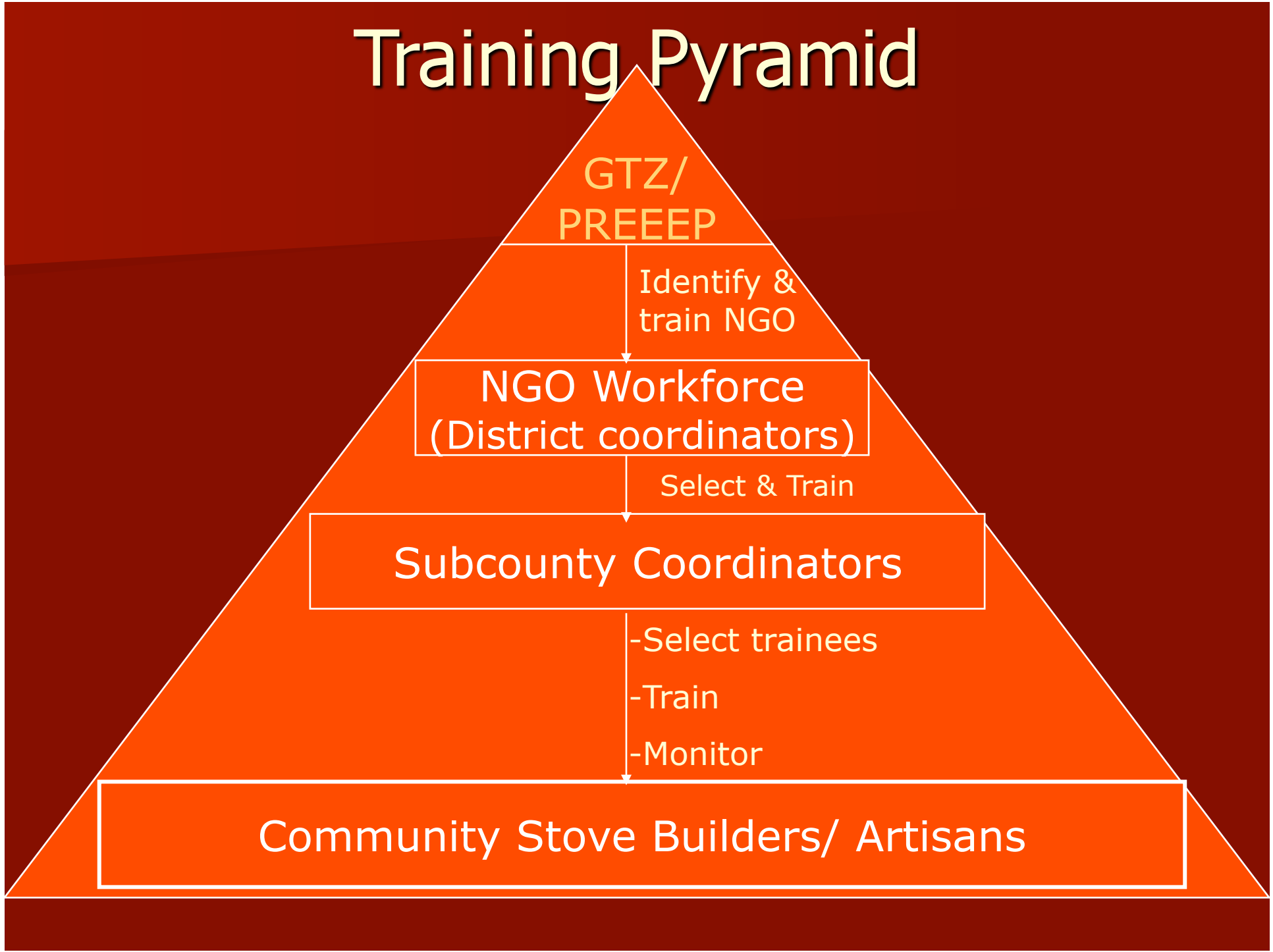
NGO Workforce  
(District coordinators)

Select & Train

Subcounty Coordinators

-Select trainees  
-Train  
-Monitor

Community Stove Builders/ Artisans



# *Motivation, Mobilization, Marketing*



# Impacts

- Over 500,000 households have received the mud rocket stoves disseminated by 7 NGOs in 4 year
- Several stove producers are getting significant incomes from the stove as they move to different areas and countries
- Time saved for wood collection and cooking, IAP reduction are recognised by users (independent studies already done)

# Thanks for Listening!



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