

3R GOOD PRACTICES IMPLEMENTED BY NGOS/CBOs



3R Good Practices in Cambodia

NGO /CBO	Groupe Energies Renouvelables, Environnement et Solidarités (GERES)
Activity	Research and training activities reducing the consumption of energy from wood
OUTLINE OF 3R GOOD PRACTICES	
Keywords	Firewood, Renewable Energy, Policy, Community, Biomass, Reduce
Country	Cambodia
Area Implemented	Kandal, Cham Pong Cham, Prey Veng, Cham Pong Speu, and Takeo Province
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Waste Sector	Urban Municipal Waste
3R Practice	Recycling sugarcane waste to cane coal briquette
Website / Data Source	www.geres-cambodia.org/cfsp/index.html

OVERVIEW OF PRACTICES

Introduction

Groupe Energies Renouvelables, Environnement et Solidarités (GERES) in Cambodia is one branch of GERES, established in 1976 in Marseille, France. The activities of GERES Cambodia are an extension of earlier development programs. These programs included the first GERES fisheries project in Cambodia in 1994 and Phases I & II of the Cambodia Fuelwood Saving Project (CFSP) from 1997-2006.

3R Good Practice

Cambodia Fuelwood Saving Project (CFSP) was set up in 1997 GERES, in collaboration with the Ministry of Industry, Mines & Energy, and supported by the European Commission. It was developed from the need for coordinated action on wood energy policy.

CFSP's initial work focused on the technological and socio-economic issues on wood energy in Kompong Chhnang province. This project involved a wide range of research and training activities to reduce wood energy consumption in Cambodia. It focused particularly on fuel efficient Improved Cooking Stoves (ICS) and charcoal manufacturing processes. In addition, CFSP also in collaboration with organizations dealing with wood energy related issues towards a national wood energy policy.

In October 2003, experiments on developing a cane coal briquette using the Karve design for charring kiln was initiated as sugarcane waste carbonizes well. A fixed plant with a production capacity of 7 tons per day was decided to be an appropriate option at Stueng Meanchey dumpsite a location, where, sugarcane waste is generally disposed. This project created an opportunity for the municipality's waste disposal service to play an important role in this waste-to-energy project.

During Phase 1 of its work, CFSP worked with Centre d'Etude et de Développement Agricole Cambodgien (CEDAC) and drew together 18 other institutions in wood energy issues, forming the Wood Energy Network of Cambodia. Through this network CFSP has trained 58 ICS technicians and over 100 extension workers. 18,000 ICS was disseminated with an estimated usage rate of 70%. Use of these stoves is found to save 37,500 tons of firewood and reduce CO₂ emissions by 53,000 tons each year.

Outcome of Practice

- Development of New Lao Bucket Stove (NLBS) by CFSP reduced the annual charcoal consumption by 40 % compared to the normal charcoal cooking stove.
- CFSP has trained 19 producers from 10 different production centres in Phnom Penh and Kandal Province, during the first half of 2003. Production capacity exists to supply up to 3000 NLBS per month to the market in and around Phnom Penh. Producers from Battambang, Prey Veng, Siem Reap and Kompong Chhnang have also been trained in the production of the main household ICS, the New Lao Bucket Stove (NLBS).

CFSP has carried out training with charcoal producers in 7 provinces. Over 14 kilns have been constructed with trainees to manufacture 5000 kg of charcoal during their first couple of months



Waste sugarcane bagasse to produce cane coal briquette



Cane coal briquette



Trainees practicing in making Improved Cook Stove (ICS)



Certificates to trainees after ICS training course



Twin Stove (ICS Stoves)



New Loa Bucket Stove (ICS Stoves)