



2003 CONFERENCE

An International Forum Connecting People with Hands-On Solutions to World Poverty

Briquetting: An Answer to Desertification, Health Problems, Unemployment and Reforestation in Developing Communities

A Pre-Conference Workshop

Tuesday, September 30, 2003, 1:00–5:00 pm
(half-day workshop)



Different briquettes from around the world.

Briquette making exemplifies the potential of appropriate technology. It saves trees and prevents problems like soil erosion and desertification by providing an alternative to burning wood for heating and cooking. It substitutes agricultural waste like hulls, husks, corn stocks, grass, leaves, food and animal garbage for a valuable resource. It improves health by providing a cleaner burning fuel. This is dramatically true in places like Tibet where yak dung is almost constantly burned in small tents. And in these situations, it also improves agriculture by preserving the dung for pastures and gardens instead of letting it all go up in smoke (and into people's lungs and eyes). The briquettes are also designed for holding, growing, and protecting seedlings. It tackles the problem on both ends by giving a better alternative to firewood (40% more efficient, longer burning, and hotter) as well as helping with reforestation. At the same time as creating the above benefits, Briquetting engenders many microenterprise opportunities: making the presses from locally available materials, supplying materials and making the briquettes, selling and delivering the briquettes.



We can arrange for someone with 15 years experience to visit a remote village or training center, analyze and recommend the best ratio of agriculture waste, show people how to make the presses as well as how to make the briquettes.

Fuelwood Facts: The Issues

The use of fuelwood is creating a human and environmental crisis in developing countries.

- Half the world's 2 billion fuel wood users face fuel shortages.
- 100 million already experience virtual fuel wood famine. (FAO)
- In Africa, 40% of energy requirements are met by fuelwood.
- Wood burning creates deforestation, desertification and erosion.
- Many sub-Saharan countries have had over three quarters of their forest cover depleted.

Briquette Bio-Fuel

Briquettes are a processed biomass fuel that can be burned as an alternative to wood or charcoal for heat energy. Often they are used for cooking. This fuel source can offset the consumption of trees and help to decrease resultant desertification.

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For more information on the conference, or to register, contact Sustainable Resources at:

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Agricultural and/or paper wastes are pressed under high pressure, into compact patties or pellets. Using waste materials makes the briquettes a renewable source of fuel. The briquette press is a relatively simple device, often easily constructed from local materials, which makes it an appropriate technology for underdeveloped and resource depleted communities or markets.



Job Creation or Community Program

A briquette enterprise introduces new jobs into a community and creates the possibility for many others, through expansion and distribution relationships. They can also be used in a cooperative or school enterprise to provide inexpensive fuel for cooking and heating, virtually eliminating recurrent fuel expenditures. The technology is an excellent candidate for work-study or cooperative programs.

Use of Waste Materials, a Renewable Practice

If not performed directly, collection of briquette fuel materials can be maintained by local suppliers capable of gathering the left over agricultural and paper wastes which are commonly abundant in human habitats, whether rural or urban. Small community scale processing operations can make use of traditional technologies such as mortar and pestle or expand materials processing to more efficient methods, such as use of mechanical threshers.

High Pressure Press Models

Commercial models of briquette presses are available. However, the consideration should be made that systems built outside of a community are often not as easily replicated or repaired without a trained individual with access to proper resources and services.

Geographically appropriate presses can be easily modified from existing models, as there are many press designs that differ greatly. Some different models of briquette presses which have already been designed and are being used all around the world include wooden compound levers, hydraulics pistons, car jack presses, and solar or pedal powered versions.

Needs are best met by Appropriate Solutions

Briquettes can be created from agricultural and paper wastes, making them a renewable source of fuel with little to no recurring materials costs. Briquette presses are inexpensive and easy to produce compared to alternate technological investments. An enterprise making use of briquette production can be very profitable for small businesses and communities consuming other bio-fuels, such as charcoal and fire wood, that are increasingly scarce and expensive in many regions of the world. Briquetting can also be done in your back yard making good use of your junk mail.



One microentrepreneur group of six trained persons working in response to real market demand can meet the needs of up to 75 families, reducing fuelwood consumption by up to 200 tons per year

About the Presenter:

Richard Stanley, The Legacy Foundation

Richard Stanley has 33 years experience working in developing countries, the last 15 focused on briquetting. As employee, consultant, and contractor for the United Nations and several European and North American organizations, he's worked on renewable energy, small industry, transportation, water supply, and sanitation projects in Tanzania, Kenya, Malawi, Botswana, Ghana, Mali, Haiti, Nicaragua, Sri Lanka, Papua New Guinea, and Peru. He is one of the world's few experts in the briquetting process, and this is a rare opportunity for a hands-on learning experience in this important and potentially transforming appropriate technology.

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