



**Sustainable Development
Management Solutions**

PROJECT CONCEPT

Production of Bamboo Biochar and Charcoal

Biochar is today considered as one of the key materials for a sustainable agricultural future for our planet. It has become an important element of an integrated organic system of farming. However, it is also used in building, clothing, electronics, filtering systems, cosmetics, medication and other consumer goods. Although biochar could be produced from any organic material, the bamboo product is rich in silica, an important element for soil health.

Charcoal is used as a non-smoky, high calorific fuel for cooking in many developing countries and for barbeques in developed countries. The increasing use of efficient and hot burning rocket stoves in the Pacific provides a good business opportunity for local charcoal producers. People commonly use wood for fuel in rocket stoves. Wood is not as efficient a fuel as charcoal as heat energy goes into the pyrolysis of the wood rather than the cooking of the food, whereas with charcoal, all the energy in the burn goes towards heating and the cooking process. Also for this reason there is much less smoke produced in the cooking process which is healthier for the cook, their families and the local environment. Production of cheap charcoal would also ease the pressure on our precious mangroves that are currently being used to provide firewood.

PROJECT GOAL: To produce bamboo biochar and charcoal.

PROJECT OBJECTIVES:

1. Establish a network of communities from where the bamboo would be procured;
2. To develop income-generating activities that provide employment to rural communities
3. To provide environmentally friendly solutions to the needs of the agricultural, industrial, tourism and transport sectors.

THE PROJECT

The project would commission the building of a customized carboniser powered by bio-energy that produces charcoal and biochar with bio-oil and bio-gas (also captured) as by-products. Additional major equipment would include a crusher and packaging machinery. The project would also procure land and build a warehouse factory and employ and train workers to safely operate the carboniser, the crusher and the packaging machinery. Biomass powered trucks would also be procured to collect and transport the bamboo cane from rural communities in different localities, being part of the raw material supply network. The project would also endeavor to find export markets for both the biochar and charcoal products.

FUNDING: Financing of USD 250,000 is being sought.

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Biochar



A carboniser