

## Efficient Biomass Stove and Briquetting Project in Uttarakhand, India

This project is focusing on the densification of biomass to replace coal in brick kiln and iron rod industries as well as to replace LPG (Liquefied Petroleum Gas) and provide efficient smokeless stoves to restaurants, temples, mid-day school programs and hospitals.



In India, hundred of million tonnes of biomass waste is produced from forest residues, and industrial and agricultural activities. These wastes cannot be utilised directly due to low bulk density and high moisture content. Rural Renewable Urja Solutions Pvt. Ltd. (RRUSPL) has planned to use these biomass wastes to manufacture and supply renewable biomass briquettes to brick kiln operators and to Iron Rod Manufacturers in Uttarakhand State and Uttar Pradesh as well as to provide smokeless stoves (chulha) to restaurants, temples, mid-day school programs and hospitals. Brick Kiln operators use coal for thermal purposes, while the rural institutions like restaurants, temples, mid-day schools in India rely heavily on LPG (Liquefied petroleum gas) to meet their cooking energy needs.

The briquetting machine has been developed and is currently in operation in different parts of India. Forced draft gasifier stoves for community cooking applications, developed by The Energy and Resources Institute (TERI) in India, will be used. The gasifier can realize a 50% saving in fuel consumption compared to conventional stoves.

<b>Type</b>	VER Project, Gold Standard registration intended
<b>Project name</b>	Efficient Biomass Stove and Briquetting Project in Uttarakhand
<b>Location</b>	Uttarakhand, India
<b>Project Type &amp; Activities</b>	Renewable biomass for heating
<b>Baseline</b>	Substitution of fossil fuels (Liquified Petroleum Gas and Coal)
<b>Project Volume</b>	18'267 tonnes of CO2 equivalents per annum
<b>Implementation Date</b>	2008
<b>Crediting Period</b>	7 years