

Nishant Bioenergy March , 2016

Setting up of Small Scale <u>Biomass Fuel Pellet</u> manufacturing facilities in Developing Countries for creating <u>Green Enterprises</u> for <u>Sustainable livelihood</u> & <u>Carbon Neutral Energy</u> for <u>COOKING and HEATING</u>

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WORLD LEADERS COMMITTED TO MARCH TOWARD SUSTAINABLE CARBON NEUTRAL ECONOMIES

Problems:

- Most of the <u>developing</u>
 <u>countries</u> are using wood/
 <u>charcoal /LPG/Diesel</u>
 <u>/Kerosene</u> for cooking/
 heating . The problems
 associated with there fuels
 are well-known.
- Unemployment
- Global warming

Opportunities:

 Agro and forest residues can be used in BIOMASS FUEL PELLET manufacturing and <u>high</u> <u>efficient pellet stoves</u> use of pellets hence <u>sustainable employment</u> and <u>carbon neutral fuel</u> use is established.



OUR SOLUTION

- 1. Tiny (250 Kgs/hr) <u>Pellet Plant</u>, using any biomass to make high density fuel pellets.
- 2. High efficient <u>Pellet Stove</u> for cooking/heating/frying/water heating etc for hostel/restaurants/home breweries/snacks making/ poultry farm /tea curing etc.
- 3. All technical and commercial training from one source at working project in India.
- 4. An enterprise will get Pellet Plant + Pellet Stoves and set up <u>local</u> <u>clean energy solution</u> from <u>local</u> <u>biomass</u> for <u>local use</u> and <u>employing local people.</u>



Agro waste Pellet



Pellet Stove



TECHNOLOGY- PELLETING

Use any biomass



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TECHNOLOGY-PELLET STOVE

(Fully automated pellet fed cook stove- commercial use)





EXPERTISE AND OVERVIEW

- ✓ Built first biomass briquette fueled big stove in 1999.
- Now manufacturer of pellet stoves and pellet making equipment and processes in India.
- \checkmark Have <u>designs</u> of stoves to cater different market/user type.
- ✓ Since 1999, installed +3500 Stoves.
- ✓ Sold <u>3 BIG and 6 SMALL pellet plants with total capacity 42000</u> ton.
- ✓ Carbon credit business expertise already
- ✓ Several "Green awards" for innovation including Ashden.
- EARTH STOVE is an innovative design and applied for patent and many attachments are possible as per user need such as Cooking, Space Heating, Water Heating, Frying, Aluminum Casting, Crop Drying etc.



TEAM



Ramesh, CMD, Mechanical Engineer with +25 years of biomass technologies experience. He is also GSBI fellow. Looking after design, marketing and overall management.



Nishant, Director, looks after technology operation and carbon credit web portal . 4 year experience.



Jaspal, Manager Works, Looks after workshop management as well as purchase. Commerce graduate with +10 years of experience.



Sucha Singh, Asst Manager Projects, looks after pellet plant domain. Has more than 20 years of experience.

Dr Harish Hande is our Guide and friend of Nishant Bioenergy. Nishant is mentored by **Dr Paul Meissner**, CEO , Spheretouch, USA, **Robert (Bob) Dench**, Founder Western Precooling, USA, **Hardika Shah**, Founder CEO , Kinara Capital.

Mechanical fabrication workshop at Zirakpur is managed by 5 skilled and 4 semiskilled people which can manufacture 50 stove per month.



REQUIREMENTS & ECONOMIES

Requirement

- Covered area 1500-2000 sq feet (Shed type with cemented floor)
- Open area 2000-3000 sq feet.
- Electric connection 60 Kw/3 Phase
- Manpower 3-4

Economies

Cost of project*			: 45000 USD
(Pellet plant, 25 stoves ES4DAF, working capital margin, power connection, freights & travel etc)			
Profitability			
	25 Stoves	11500 USD/Year	
	50 Stoves	23000 USD/Year	
	100 Stoves	46000 USD/Year	
* This project can manufacture pellets for 150 Earth Stove ES4D AF			





Namaste !

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