



Bio Trend Energy

Pvt. Ltd.

Creating Sustainable Energy of Tomorrow



ADDRESS

Bio Trend Energy
Private Limited.
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INTRODUCING BIO TREND ENERGY PRIVATE LIMITED

'Bio Trend Energy Private Limited (BTE) Bio Trend Energy is one of the pioneering and leading company in India that have been working on advanced biomass/waste clean energy solutions/innovations that aims to reduce GHG emissions and improve environment. Our long-term goal is to achieve a cleaner environment by replacing fossil fuel in industrial and other sectors.

Bio trend energy has set up state of art of the pellet production facility is located at Gandhi Dham Gujrat. Our cumulative biomass pellets production, aggregation capacity is expected to reach about 5000 MT per month across India, that would aim to contribute carbon free transition faster.

VISION

To be an innovative and leader in promoting environmentally sustainable biomass-based products and processes with a focus on sustainable development and jobs creation.

MISSION

To develop partnership for sustainable biomass production and promote biomass based clean energy solutions and innovative business models involving community (farmers and women).

OUR THURST AREAS

Focus Technologies

- Densification (Briquetting and Pelletization)
- Torrefaction and Gasification
- Anaerobic Digestion (biogas, CBG)
- Decentralized Renewable Energy system design (Cookstoves, Irrigation pump set, Charcoal plant, pellet burners etc.)

Focus Biomass/Waste

- Agro-residues (Paddy straw, Rice husk, Sugarcane, Cotton, Groundnut shells, Soya stalks, Mustard stalk, Jute, coffee horticulture waste etc.)
- Forestry (Pine Needle, Lantana etc.
- Bamboo residues
- MSW

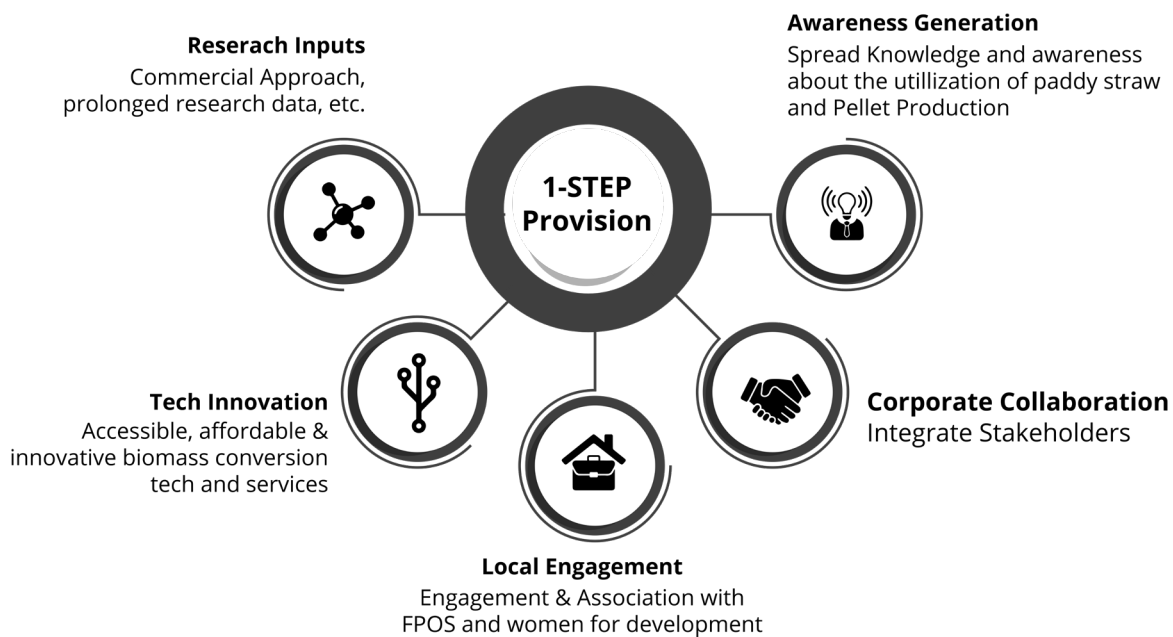
Consultancy & Advisory Services

- Technical, Financial and market assessment studies
- Technical due diligence
- Renewable Energy Planning Activities
- Contributes to an increasing role of biomass and waste utilization in the energy transition and the circular economy.

Innovative Business Models

- Working with women's and FPOs in biomass aggregation, collection, storage, processing, and overall management of biomass enterprise.

Integrating Sustainable Biomass Technology Involving Farmers & Elimination Of Air Pollution



BIOMASS AGGREGATION AND COLLECTION MODELS

Lack of robust institutional and market mechanism for efficient agri-residues aggregation, collection, and storage is critical gap in biomass value chain development.

BTE is working with rural youths in States of UP and MP; creating viable business models in agro-residues aggregation, collection, storage & processing; dealing with farmers, and all stakeholders.

- Converts agricultural residues into briquettes/pellets for industries, HHs, and TPPs.
- Avoids biomass burning
- Production of biomass pellets saves GHG emission
- Helps combat Air Pollution and climate change.



Corn Cob



Mustard Straw



Bamboo Residue



Paddy



Soyabean



Sesame



Urad



Pine Needles



Lantana



Bamboo

BIOMASS AGGREGATION AND COLLECTION MODELS IN STATE OF MADHYA PRADESH

S.NO.	RAISEN	CHHATARPUR
Type of Biomass	Bamboo Residue, Parali, Soyabean	Sesame, Urad, Mustard Straw, Mustard Husk
Major Activity	Biomass Aggregation & Pellet Production (Under implementation)	Biomass Aggregation & Pellet Production (Under implementation)
Capacity	20TPD	20 TPD, 70 mm Diameter

BIOMASS AGGREGATION AND COLLECTION MODELS IN STATE OF UTTAR PRADESH

S.NO.	BAREILLY	BADAUN
Type of Biomass	Corn Cob, Babul, Mustard Husk Rice Straw & Parali	Paper Waste, Eucalyptus & Press Mud
Major Activity	Biomass Aggregation	Biomass Aggregation & Briquette Plant
Capacity		20 TPD, 70 mm Diameter

BIOMASS AGGREGATION AND COLLECTION MODELS IN STATE OF HIMACHAL PRADESH

S.NO.	KANGRA, HP
Type of Biomass	Pine Needles, Bamboo & Lantana
Major Activity	Biomass Aggregation & Pellet Production (Under implementation)
Capacity	20 TPD

CLEAN COOKING SOLUTION

Improved cookstoves can provide new sources of livelihoods for women.



- ▶ BTE collaborated with Mimi Moto BV on biomass pellet use for clean cooking application through their cooking stoves
- ▶ The objective is to promote use of efficient cook stove design & processed biomass fuels, sale, distribution, and its use that can transform lives.
- ▶ BTE well placed the spearhead to develop viable business models for decentralized pellet production and its use for cooking applications in rural areas.

Mimi Moto + pellets save 3 to 4 Tons of CO2 emission annually, helping to combat climate change.

BIOMASS FIRED INDUSTRIAL BURNER

Introduction

- ▶ India has large number of MSMEs that consumes fossil fuels such as coal, LPG Natural gas, furnace oil meeting their energy requirement.
- ▶ Due to shortage and steep rise in fossil fuel prices many MSMEs units are becoming unviable in their operation.
- ▶ There is growing emphasis to reduce air pollution and reduction in GHG emissions by shifting to cleaner fuels in industries.
- ▶ India has large amount of biomass in form of agricultural/forest residues that can be utilised for energy production.



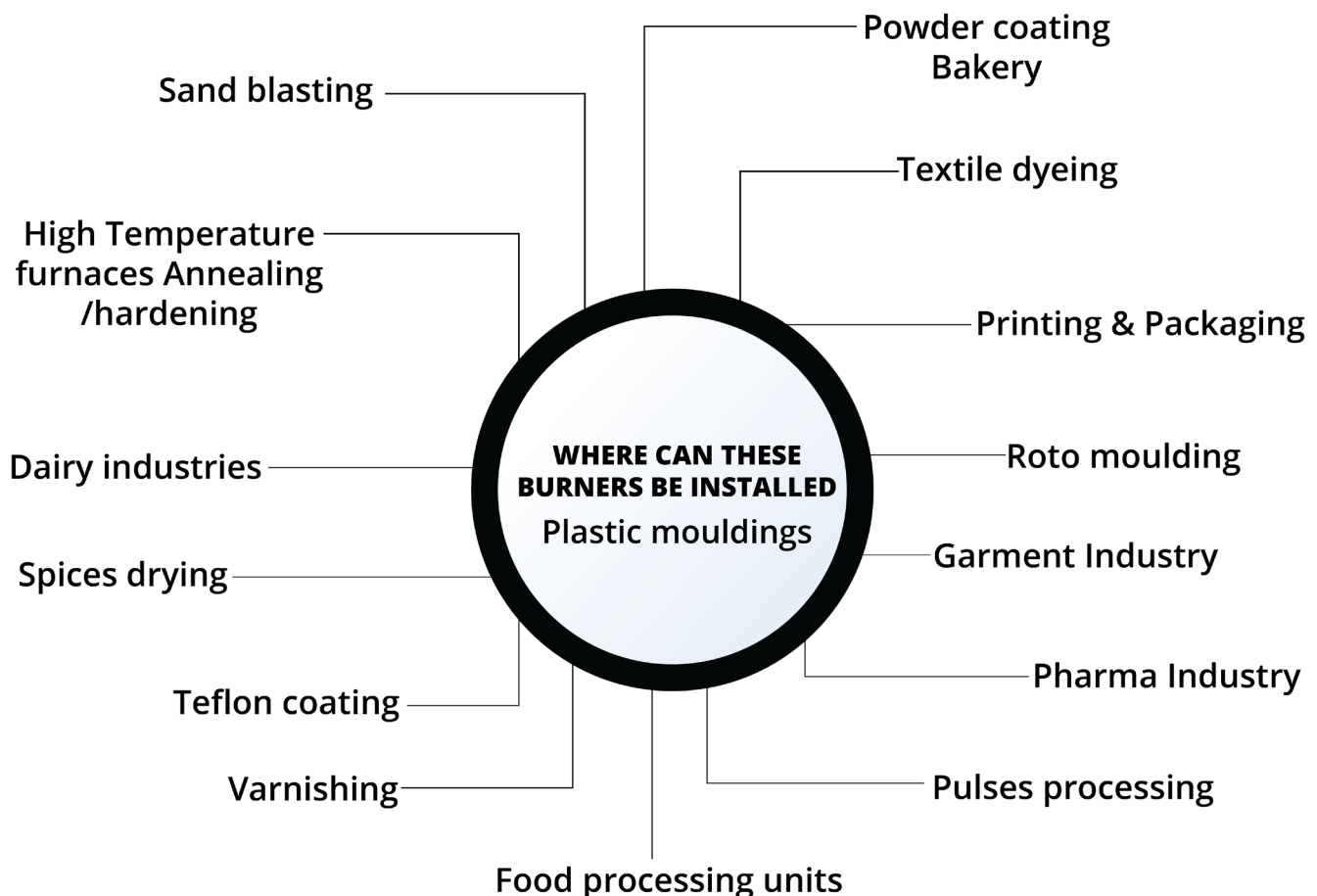
Solution

Biomass burner is an energy efficient that works on the principle of direct combustion till feed conveyer.

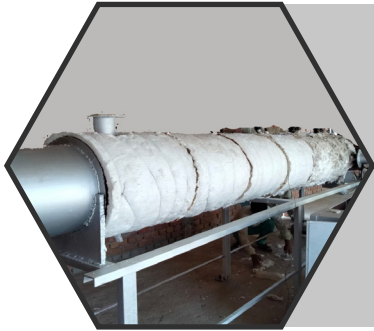
Key Features of innovative tech

Features are listed below

- High Combustion Efficiency- > 90%
- Automatic Ignition system with PID controller.
- Process temperature controls with programmable thermostats
- Energy cost saving - 30-50% against Diesel /LPG.
- Designed specifically to handle multiple type of pellets and class leading ash handling capabilities.



TORREFYER



Bio Trend Energy (BTE) has developed **TorChar technology**, a continuous torrefaction machine that turns unused agricultural residues into torrefied forms. **All agricultural waste, including RDF, can also be torrefied** in loose or compacted forms as pellets, with very high energy and mass recovery.



After torrefaction, the agro-residues comes out in the form of a **black material, which can directly be used in industrial boilers** as it is or along with coal as the case may be. The torrefaction **yield is between 70 to 80%** depending on the biomass used and its characteristics.



A **powerful tool** to fight climate change and address air pollution problems.

KEY ACHIEVEMENTS

- Building a thriving business environment across biomass value chain
- Undertaking innovative design and development work – Torrefaction system, low-cost pellet mill, advanced biomass gasifier, pellet burner efficiency improvement etc.
- Handhold Local stakeholders on technical, finance, knowledge, and market linkages to reach common goals.
- BTE partner with GVT to develop viable business model for decentralized Agri residues based pellet production involving local community (FPOs and Women) across States– I STEP model
- BTE partner with rural entrepreneurs in Agri-residues collection, aggregation, and supply chain
- Models by providing agriculture implements and local infrastructure support

BIOMASS PELLET PRODUCTION FACILITY AT GANDHIDHAM, GUJARAT

BTE has a biomass pellet production facility with European pellet mill with 6-8 mm diameter Pellets with 40 TPD production capacity.

Glimpses of Biomass pellets production facility at Gandhidham





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