



Compressed Biogas (CBG) Plant



Government of Nepal
Investment Board Nepal



Background

The project, focused on establishing a Compressed Biogas (CBG) Plant in Nepal, aims to leverage the country's significant agricultural and organic waste resources for biofuel production. This initiative, aligning with national development priorities and sustainability goals, promises to reduce fossil fuel dependency, enhance energy security, and offer economic benefits through job creation and rural development. By utilizing cutting-edge technology for biogas production and distribution, the project represents a strategic investment in green energy and agricultural innovation.



Sector
Energy



Proposed Locations
Jhapa, Sarlahi,
Chitwan and Kailali Districts

Salient Features



Feedstock
Utilization



Production Capacity
(50 -100 tons per day)



Scalability and
Replicability



High Quality
Fuel Production



State-of-Art Anaerobic
Digestion Technology



Distribution Network Pipes laying
as far as 50 km from the plant



Community Engagement
and Development



Bio Fertilizer Production
as By-Product

Project Rationale



Biogas Production through
anaerobic digestion of wastes



Reduce Dependence on
Imported Fossil Fuels



Promote Sustainable Agricultural
and Waste Management Practices



Develop Infrastructure for
CBG Distribution



Agricultural Waste Management
(approx.400,000 metric tons in proposed districts)



Improve access to
reliable energy sources



Cheaper to convert
vehicles to CBG than EVs

Project Components



Feedstock Receiving and Storage System



Pre-processing system



Anaerobic digester (12 digester of 10,000 cum capacity each)



Biogas Purification system



Gas Storage system



Gas Dispensing system



Waste heat recovery system



Monitoring and Control System



Effluent treatment system

Project Outcomes



Generates jobs in construction, operation and maintenance.



Additional income to farmers



Improves soil health with Biofertilizer products.



Agriculture and Rural Enhancement



Local economy support



Reduces greenhouse gas emissions from organic wastes



Environment Sustainability

Project Implementation Modality



Public Private Partnership (PPP)

Project Implementation Timeline



Project Ideation



Desk Study



Pre-feasibility Study



Feasibility Study



Solicitation



Project Development

Relevant Agencies

- Investment Board Nepal (IBN)
- Ministry of Physical Infrastructure and Transport (MoPIT)
- Ministry of Energy, Water Resource and Irrigation (MoEWRI)
- Provincial and Local Government

About the Agency

The Investment Board Nepal (IBN)

IBN is a high-level government body chaired by the Right Honorable Prime Minister, that serves as a facilitator for both domestic and foreign investments in Nepal. Its primary objective is to create an investment-friendly environment by mobilizing and managing domestic as well as foreign investments to promote investment across different sectors through a transparent and efficient process. Being guided by the Long-term Vision (2043), the 15th Plan, international commitments such as Sustainable Development Goals and other subsequent policies of the Government of Nepal, IBN has been developing credible and bankable projects to garner investment.

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