

# Gorontalo Biofuel Zone Project Summary

by  
Clean Biofuel International Pte Ltd  
and  
PT. Inti Global Laksana

## Biofuel Zone Description

The Gorontalo Biofuel Zone is to be established within the unproductive forestry land in Kabupaten Pohuwato of Gorontalo Province.

The Biofuel Zone will be an integrated biofuel development encompassing:

- reforestation of forest in the area;
- protection of watershed and ecosystem;
- biofuel plantations;
- plasma area for local farmer groups;
- biofuel processing facilities;
- harbor and tank farm for distribution and transport;
- nursery and training facilities;
- primary access roads for plasma and plantation use.

The Biofuel Zone will be operated jointly by PMA – PT. Inti Global Laksana and Kabupaten to establish an integrated bio-industry development with all support facilities.

Primary consideration will be given to maintain forest ecology and watershed. Each plantation and plasma are within Biofuel Zone will complete land use evaluation to establish areas for Hutan Lindung, Hutan Produksi and Kebun. Criteria will be based on land contour, watershed, soils and ecosystem.

The goal is reforestation of the deforested area including expanding Hutan Lindung to cover all critical watershed area.

The Inti Plasma and plasma plantation design will be mixed use to encompass both oil, trees and other wood and kebun crops. Best practice will be maintained to protect soil erosion, water quality and ecosystem. Waste from clearing and plantation operation will be used in advanced biomass gasification process to produce electricity without burning or smoke related to traditional clearing methods.

## Biofuel Zone Components

- *Primary Plantation*

The primary plantation for oil feedstock will be developed on eastern location land with elevation below 300 mt. This plantation will be primarily Palm Oil with some mixed tree buffer zone along watershed, river corridors and high environmental impact areas.

This area will cover approximately 35000 hectares and self-contained in support facilities – energy, food, water and housing.

- *Biofuel Plant with Shipping Facilities*

The Biofuel component of the project will include construction of Biofuel facilities at location on the Tomini Bay. These facilities will include storage tank farm and offshore loading facilities.

The capacity of feedstock will be enough for production of 200 million liters annually and Biofuel production will be developed to ensure security of fuel supply for Gorontalo Region.

The Biofuel Facility will provide a market for plasma and other local farmers to readily sell the products. This will open up new crop possibility for under used land in Gorontalo – Pohuwato area.

- *Plasma Area*

The plasma area of Biofuel Zone will cover 4500 hectares and will provide land and inputs for development of Biofuel feedstock by local farmers.

Up to 1000 groups of local farmers will be incorporated in the plasma development.

Plasma development will be in areas currently accessible by local population with support road access and market development. The plasma units will provide employment and sustainable economic livelihood for up to 5000 workers.

Plasma operations will be intercropping as an integrated development to sustain farmers development during the early growth period of the plasma plantation.

- *Community Plasma Plantation*

The achieved and more direct community benefit from the Biofuel Zone development areas of the plasma plantation will be assigned directly to schools and Desas. They will receive income directly from these areas to support their independent development.

This will provide direct economic support for local community under the control of local community.

With direct benefit of plasma plantation production the schools and Desas in Biofuel Zone will be able to improve independently from budget of Provincial and Regional Government. This will bring social benefits to entire community as result of Biofuel Zone Development.

- *Agro-forestry*

The development of western area of the Biofuel Zone with elevation of above 400 mt will be a mixed mosaic plantation. The plantation will include a mix of Jarak, wood and food crops.

The food crops will provide a unique variety of products given the unique terrain and ecosystem of the area. These will include row crops, fruit and vegetable crops.

The Agro-forestry development will be mechanized with irrigation systems installed to achieve maximum productivity. Using crop rotation and irrigation it is expected the 2 and 3 harvest cycles a year can be achieved in the area.

Plantation crops will be used on sloping areas with mixed tree crops along river corridors and high environmental impact zones.

Crop areas will be hedged in Jarak rows for production of internal fuel supply.

- Agro Training Center

To support modern Agro Business and training of local farmers, Universitas Negeri Gorontalo (UNG) will establish a satellite university and research center on 100 hectares of land within Biofuel Zone.

Research will be done on higher yield crops which can be produced in Gorontalo area as well experimental farming techniques.

The satellite university will also be used to train students and provide some self-generated income from its operations.

The training will include periodic short course for local farmers on land soil maintenance, post crop handling and production of higher yields.

- Electricity Generation

The Biofuel Zone will create two source of renewable electricity to supply local demand and secure local supply of electricity.

The goal will be to achieve security of supply to increase electrification of local area which now is less than 40%.

One supply will be from Biomass waste of plantation of approximately 4 MWs and an additional supply will be from mini-hydro installation on upper Randangan River of 1 – 2 MWs.

The Biomass waste will be able to supply a stable base load with back up peak and reserve from Mini Hydro Generation.

- Community Planning

The Pohuwato Regency will be assisted in community planning and land use planning in the area which is affected by the Biofuel Zone development.

This will include master planning of future land use in area to insure balanced and controlled development from the economic impact of the development. Working with BAPPEDA and P.U. the area of development will establish new zoning for housing, business and infrastructure need to support the anticipated growth in population. Special attention will be made to retain open space and land use to maintain quality living environment in the area.

- AMDAL

AMDAL will be prepared by Universitas Negeri Gorontalo (UNG). This will include comprehensive environmental analysis and community information meetings.

UNG will also be integrated into the social development planning of the project to maintain transparent development with LSMs or NGOs in the area.

- *Lumber and Wood*

The Biofuel Zone is being developed on the deforested land currently covered by secondary growth.

All the lumber and forest products which will be removed from the Biofuel Zone will belong to the Government of Gorontalo and will be auctioned or used by PEMDA for community housing and development. It is anticipated this support for housing and basic infrastructure development will come from additional funds obtained from wood products delivered to PEMDA.

Location and timing of lumber cutting and clearing operations will be managed by PT. Inti Global Laksana. Cutting and clearing will be done along contour lines in mosaic patterns to stop soil erosion and protect watershed. PEMDA will contract with lumber companies to do actual cutting and removal of lumber from Biofuel Zone area to be delivered to PEMDA.

- *Development Standards*

The Biofuel Zone will be developed using the highest international standards for operations and products.

- **Operations**

The plantation will be operated and received RSPO (Roundtable on Sustainable Palm Oil) Principles and Criteria for Sustainable Palm Oil Production.

Also the forestry impact and environmental protection will be reviewed by EU Government Environment Ministry.

## - Products

The Biofuel product will meet:

1. DIN51606 – a German standard for Biofuel, which is considered to be the highest standard currently existing, and is regarded by almost all vehicle manufacturers as evidence of compliance with the strictest standards for diesel fuels. The vast majority of Biofuel produced commercially meets or exceeds this standard.
2. EN14214 – the standard for Biofuel now having recently been finalized by the European Standards organization CEN. It is broadly based on DIN51606.

- Land Use

All land use will be according to the international standards for Agro-forestry land conservation and watershed management.

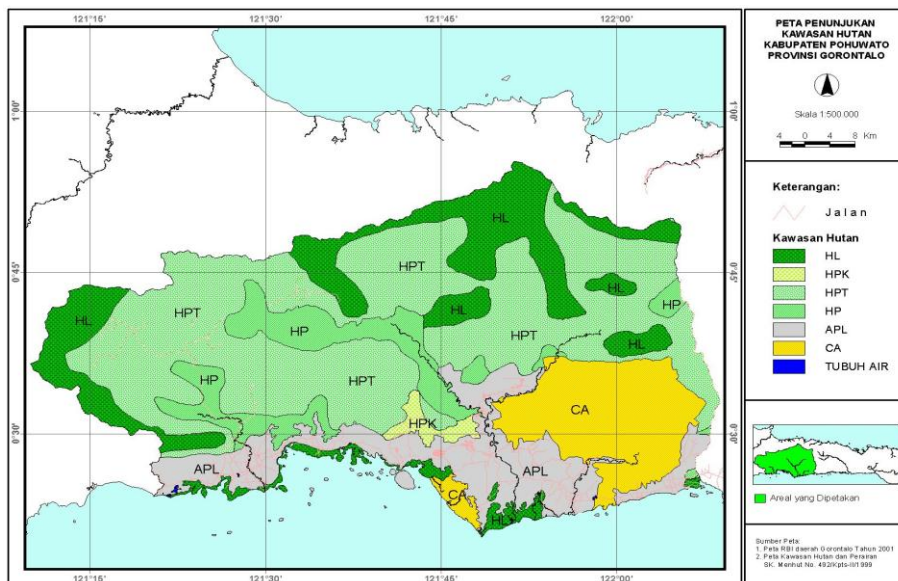
Land use design will be in accordance with Presidential Decree No.32 Year 1990 regarding the Management of Protected Area. This provides protection river corridors, watersheds and high environmental impact zones.

- Agro / Eco Tourism Preserve

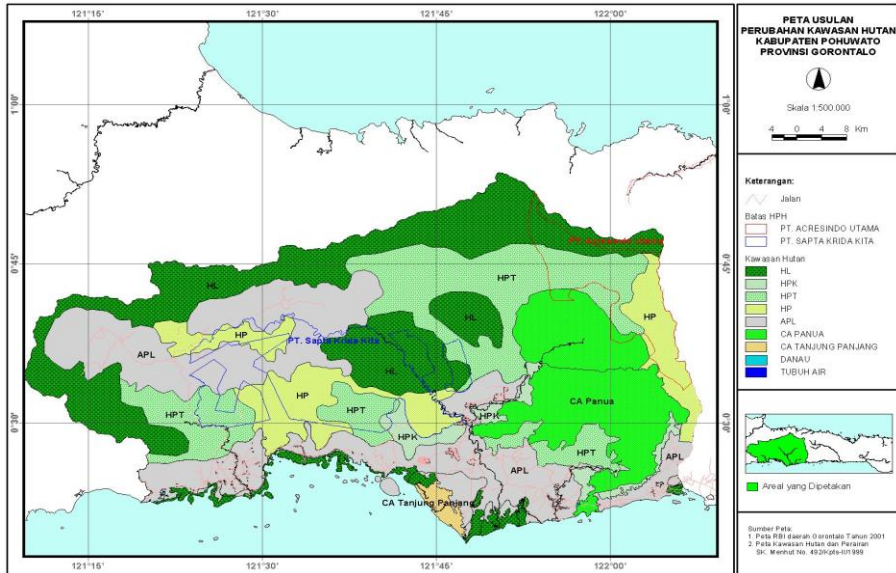
As an environmental and sustainable integrated reforestation and Biofuel Agro-forestry development, the Biofuel Zone Project will have a high attraction to ecologist, forestry and community planners.

To provide facilities to these groups a 200 hectares ecological preserve with some villas will be incorporated in the Biofuel Zone. These will provide public access to the development. From this eco-preserve will be available trekking, rafting and agro-forestry tours.

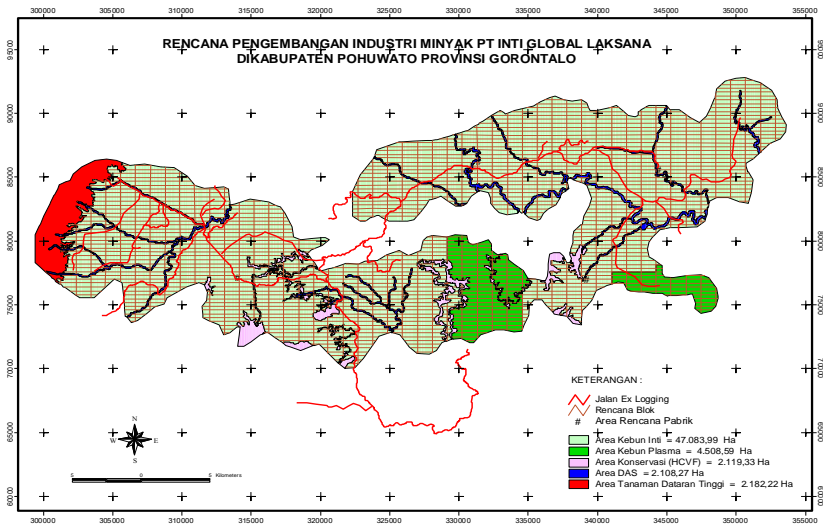
## Current Forestry Area Maps

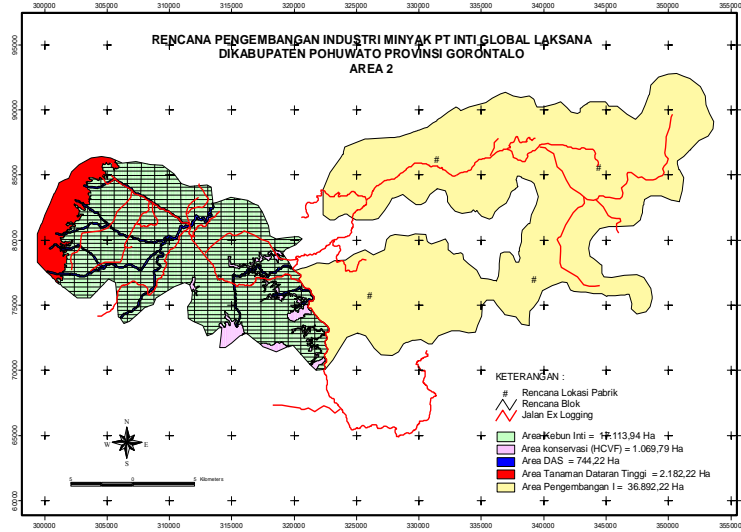
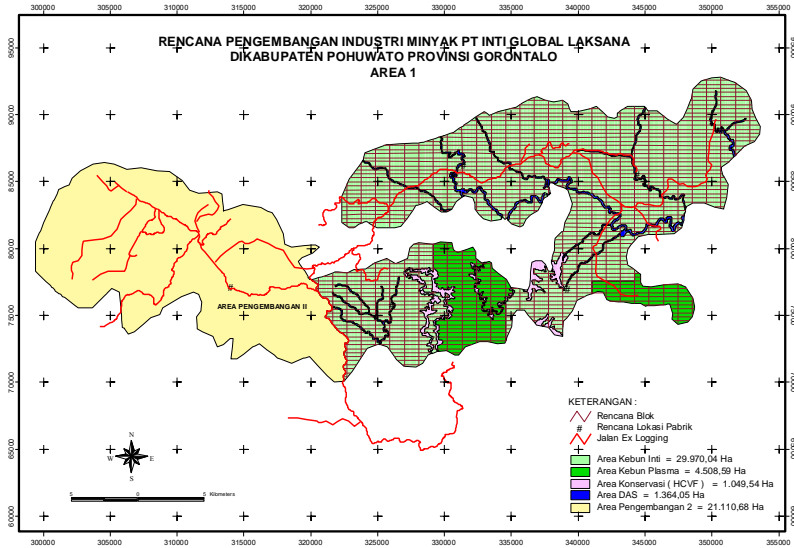


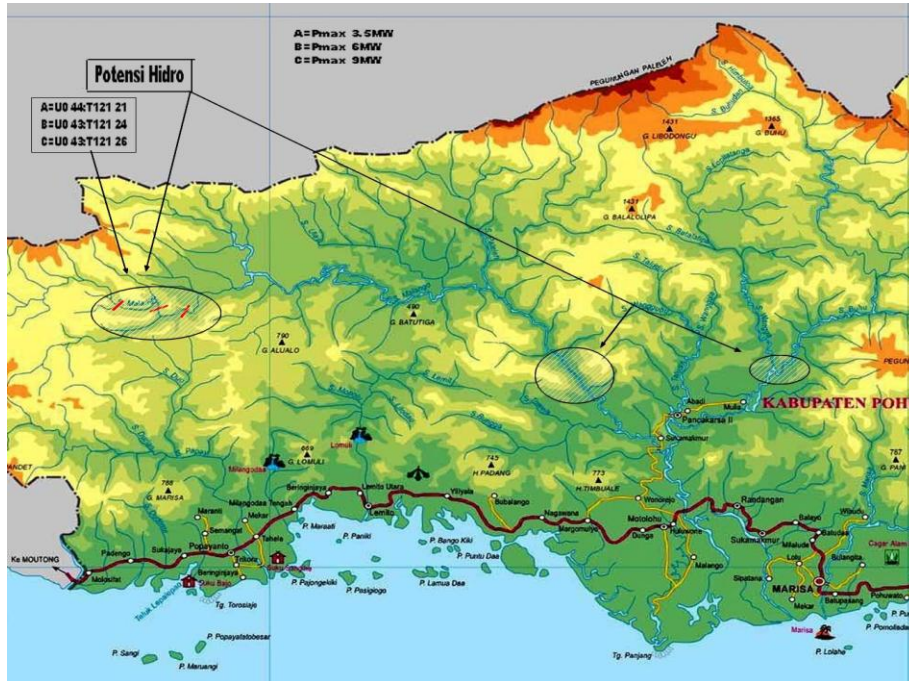
# New APL and Forestry Area Map



# Master Plan New APL Area







Chronology of Cooperation  
 between  
 The Provincial Government of Gorontalo Province and the Regional Government of Kabupaten Pohuwato  
 and  
 PT. Inti Global Laksana / Clean Biofuel International Pte. Ltd.  
 regarding  
 Gorontalo Biofuel Zone Project

The development of this project has been planned over the last three year period.

Key elements in plan stage have been:

1. Memorandum of Understanding (MOU) has been signed by the Provincial Government of Gorontalo Province and the Regional Government of Kabupaten Pohuwato and Intertrade Services and PT. Skygem Agri-Systems regarding the development of Integrated Biofuel plantation and processing facilities on February 22, 2006.
2. The Provincial Forestry Department has surveyed the area and established it as a non-productive forest in KPHP (Kesatuan Pengelolaan Hutan Produksi) XXI and KPHP XXII.

Reference: Report from Bapak Ir. J. I. Baskoro, MSi (Head of Planology Sub Division of Gorontalo Provincial Forestry Department dated May 2006.

3. Governor of Gorontalo Province gave support on the development of Integrated Biofuel to Intertrade Services in his letter No. No.525/GUB/039/2006 dated April 24, 2006.
4. Bupati Pohuwato issued Decree No.77 Year 2006 dated May 24, 2006 to accelerate the permitting process of the Biofuel Project. He formed a Commission consisting regional officers to assist Intertrade Services in the permitting process.
5. Clean Biofuel International Pte. Ltd. signed a contract with Institut Pertanian Bogor (IPB) to conduct an independent analysis on Kabupaten Pohuwato's forest area.

6. Rescoring and rationalization of total forest area in Kabupaten Pohuwato by IPB (Institut Pertanian Bogor) Team.  
  
Resulted in increasing 80.000 hectares of Protected Forest (Hutan Lindung) and selection of area of development for Biofuel and Agro- Forestry area. IPB Team's study was completed in October 2006.
7. Initiation of Biofuel Zone by the Regional Government of Kabupaten Pohuwato.  
  
Reference: Bupati Pohuwato's letter to the Head of Biofuel Development National Team No.503/PEM/1647/XI/2006 tertanggal 29 November 2006.
8. Memorandum of Understanding (MOU) was signed between the Provincial Government of Gorontalo Province, the Regional Government of Kabupaten Pohuwato and Clean Biofuel International Pte. Ltd. in front of the President of the Republic of Indonesia on January 9, 2007.
9. PT. Inti Global Laksana opened its office at Jalan Kartini No.1 in Gorontalo on October 1, 2007 and has obtained Domicile Letter from Lurah Limba U II Kecamatan Kota Selatan in Gorontalo.
10. Bupati Pohuwato issued Decree No. 193 Year 2007 dated November 29, 2007 regarding Location Permit for Multi-Use Palm, Jatropha, Oil Crops, Biofuel Crops and Intercropping Row Crops Plantation to PT. Inti Global Laksana on 55,000 hectares land in Kecamatan Popayato and Kecamatan Lemito of Kabupaten Pohuwato.
11. Revised Forest Plan on the Regional Lay Out Plan (Rencana Tata Ruang Wilayah Kabupaten / RTRWK) by the Regional Government of Kabupaten Pohuwato and the Provincial Government of Gorontalo Province was stipulated in the Regional Regulation (Peraturan Daerah / PERDA) No.2 Year 2007 dated February 26, 2007.
12. The Regional Lay Out Plan of Kabupaten Pohuwato was forwarded by the Governor of Gorontalo to the Minister of Forestry through letter No. 522/HUTBUN/105/ 111/2007 and to the Minister of Interior through letter No. 522/HUTBUN/106/ 111/2007.
13. Socialization of the project was held on:
  - April 14, 2006 and May 11, 2006 in Popayato Village
  - July 26, 2006 in Gorontalo
  - November 7, 2006 in Marisa
14. Integrating local University with the land use planning and establish Satellite University in the project area.
  - Contract on AMDAL was signed with Universitas Negeri Gorontalo on June 11, 2008.
  - PT. Inti Global Laksana proposed to the Regional Government of Kabupaten Pohuwato to assign 100 hectares of the area that will be converted to Other Usage Land (Areal Penggunaan Lain / APL) to Universitas Negeri Gorontalo to be used as development and research campus.
  - Memorandum of Understandin (MOU) between Universitas Negeri Gorontalo and the Regional Government of Kabupaten Pohuwato, the Provincial Government of Gorontalo Province to establish Satellite University in the APL area.
15. Letter from the Governor of Gorontalo No.29/GUB-JKT/XII/2008 dated December 4, 2008 to the Minister of Forestry of the Republic of Indonesia regarding the Utilization of Forest Area for Biofuel Program in Kabupaten Pohuwato as the implementation of MOU signed by the Provincial Government of Gorontalo Province, the Regional Government of Kabupaten Pohuwato and Clean Biofuel International Pte. Ltd. in front of the President of the Republic of Indonesia in Jakarta on January 9, 2007.
16. RTRWK Process:

12 Mar 2007	RTRWK Pohuwato was forwarded by Governor of Gorontalo to the Minister of Forestry through letter No. 522/HUTBUN/105/111/2007 and to the Minister of Interior through letter No. 522/HUTBUN/106/111/2007.
7 Jun 2007	DG-Bangda (Director General of Bina Pembangunan Daerah) sent letter No.050/691/IV/Bangda to the Coordinating Minister of Economy as Chairman of BKTRN (Badan Koordinasi Penataan Ruang Nasional) requesting to facilitate discussion of RTRWK Pohuwato.
3 Jul 2007	Coordination Meeting on RTRWK Pohuwato was held.
5 Jul 2007	Coordinating Minister of Economy sent letter No. S-71/M.EKON/07/2007 to the Minister of Forestry regarding RTRWK Pohuwato.
9 Jul 2007	Head of Planology Division of the Ministry of Forestry sent invitation No.UN.26/VII/KP/2007 to various government agencies for meeting on July 17, 2007 to discuss RTRWK Pohuwato.
17 Jul 2007	Meeting with Forestry Team (chaired by Head of Planology Division of the Ministry of Forestry) to form a Technical Team to conduct site visit.
10 Aug 2007	Head of Planology Division of the Ministry of Forestry issued Decree No.SK.23/VII-KP/2007 establishing Preliminary Team to study the area prior to Integrated Team's visit to the site.
10–15 Sept 07	Preliminary Team headed by Ir. Rusydi from Planology Division of the Ministry of Forestry visited the project site in Kabupaten Pohuwato.
6 Feb 2008	The Minister of Forestry sent letter No.S.50/Menhut-VII/2008 to Commission IV of DPR-RI (National Parliament) asking approval for Integrated Team's visit to regards to the change of RTRWK Pohuwato.
17 Mar 2008	A meeting was held by Commission IV of DPR-RI and Planology Division of the Ministry of Forestry in regards to RTRWK Pohuwato.
26–28 Mar 08	Site visit by Commission IV of DPR-RI.
9 Apr 2008	DPR-RI sent an approval to the Minister of Forestry for Integrated Team's site visit (letter No. TU.03/3076/DPR-RI/2008).
22 May 2008	Minister of Forestry issued Decree No.SK.203/ MENHUT-VII/2008 regarding the formation of Integrated Team members.
13-16 Aug 08	Integrated Team conducted visit to the project site.
January 2009	Integrated Team's Final Report was submitted to the Minister of Forestry and DPR-RI.