

# OIL EXPLOITATION IN LAURENZ NATIONAL PARK



JATAM  
IN COORDINATION WITH OILWATCH ASIA  
2005

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## 1. INTRODUCTION

Lorentz National Park is a beautiful and unique area rich of natural resources. Its Jaya Mountain top is the highest in South East Asia and is covered by glaciers. It is a place of alpin vegetation, rain forests, lowland, and mangrove forests along its coastal line. It is a home to hundreds of animal species like Tree Kangaroo, and endemic birds. It houses more than 24 different ecosystems and the largest tropical rain forest in Asia Pacific.

The national park contains many unmapped, unexplored and original plants, animals and native cultural heritage. The mountainous area whose some mountain peaks are covered by snow, an amazing phenomenon happening near the equatorial line, also contains mineral deposits, and large-scale mining operations are active in the surroundings of the national park.

The national Park also includes majority of Warim Papua area in Irian Jaya. Warim Block is rich of mineral resources, namely potential natural gas, oil, and prospective hydrocarbon. Based on seismic data, there are 13 prospects of hydrocarbon totaling 2.135 MMBO and 4 prospects of significant resources, namely Cross Catalina (200 MMBO), Lorentz (640 MMBO), East Muras (210 MMBO), Steenkool (200 MMBO) that are located in the northwest of Warim Block.

Some criteria of considerations to award Lorentz National Park the status are as follow:

1. It houses major representatives of the earth's history including the history of living creatures, significant geological processes continuously run through the landform or other geomorphic and physiographic forms: *it is situated between two continents. It has complex geological structure with continuous mount formation processes, big glaciation and expansion of coastal line that has produced lowlands.* (World Heritage Committee).

Lorentz national park has centre mountain chain up to 5,000 m above the sea level. It also has incredible snow-covered mountain top, ravines, steeply sloping riverbank or mountain sides. A number of caves in Lorentz's highland store important fossils of ancient animal species as well as prehistoric lives.

Its glaciers and landform, a witness of Pleistocene glacial period, the main stage of the earth's history. The area also keeps fossil locations witnessing life evolution in New Guinea. (World Monitoring Center, 2001)

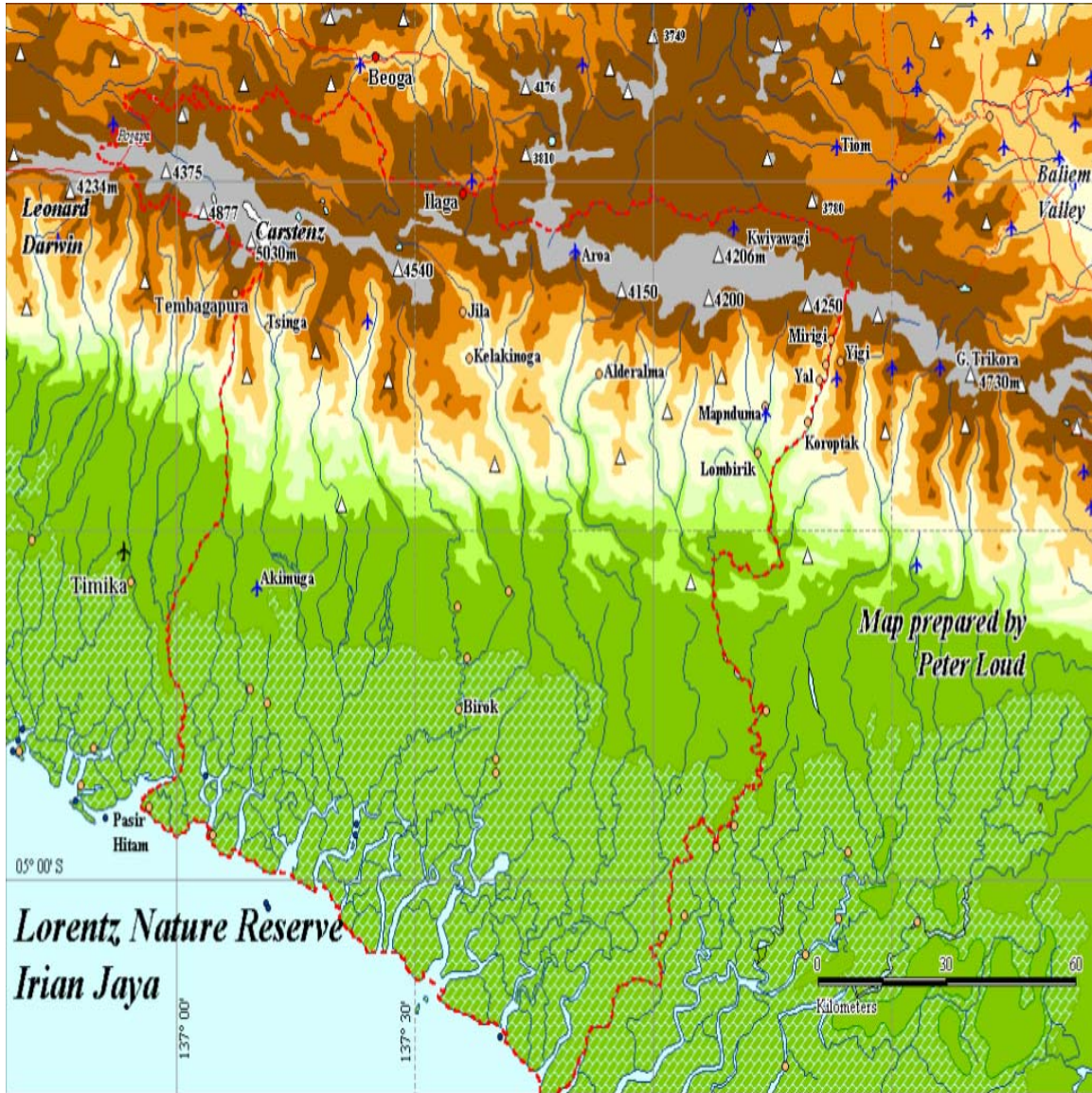
2. Lorentz national park has prominent examples that represent significant ecological and biological processes continuously running throughout the earth's ecosystem evolution, water, coastal and water areas, animal populations as well

as plantations. *'These processes create further stage of endemism.'*(World Heritage Committee 1999).

3. Lorentz National park contains superlative nature which is aesthetically important as well. One of its undisputed natural beauties is the huge, snow-covered Pleistocene relics in its tropical area—a globally superlative natural condition. The 3,000-meter high tropical glacial area contains moraine glacier and glacier valleys.

## 2. LORENTZ NATIONAL PARK

WORLD HERITAGE PLACE



Picture 1: Lorentz National Park

## INTRODUCTION

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4. Lorentz National Park also contains natural ecosystem that is significantly important to the conservation of its surrounding biodiversity, that contain threatened species with prominent universal values from science and conservatory the point of view.

The park is home to 411 bird species, including bird-of-paradise and parrots. More than 100 mammals call the park home. They include a number of marsupials including the tree-kangaroo and cuscus, as well as a variety of bats.

Lorentz National Park covers two endemic bird areas with the total of 45 freed birds and 9 species of endemic birds in Sudirman mountain areas and Endemic Bird Area south of Papua lowland. Two species, namely Namdur archbold and Archboldia papuenis are considered very rare and are sporadically spread, making them very prone to extinction. Meanwhile, Cnedrawasih Elok (Bird of Paradise) is classified as extinction-threatened because its small number of population is randomly dispersed.

However, in this natural treasure has being allowed both oil exploitation and minig activities, carried out by two transnational companies: Conoco and Freeport.

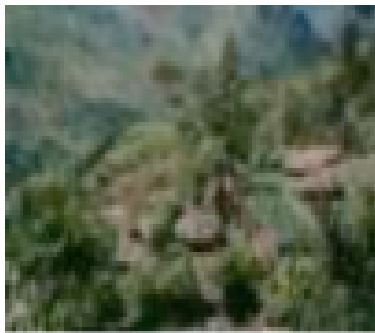
In this report, we are going to analised the problems generated by this companies and the answer of local population.

## GENERAL INFORMATION OF THE NATIONAL PARK

Lorentz National Park is the largest national park in Indonesia as well as in South-East Asia, covering an area of 2.505.600 square hectares. It includes a number of regencies in Indonesia's easternmost province of Irian Jaya, namely Paniai, Fak fak, Jayawijaya, and Merauke regency.

The park is located on Irian Jaya, the Indonesian half of the island of New Guinea. The altitudes in the park range from sea level to the 4,884m at the summit of Puncak Jaya, Indonesia's highest mountain and one of three places in the world where glaciers still exist in the tropics

The Park lies within the Province of Irian Jaya, and the administrative districts of Jayawijaya, Paniai, Merauke (Southern Division), Fak-fak, Mimika and Enarotali. It stretches for over 150km, from the central cordillera mountains in the north to the Arafura Sea in the south.



**Picture 2: Lorentz National Park**

The Park can be divided into two very distinct zones: the swampy lowlands and the high mountain area of the central cordillera. The central cordillera itself can be subdivided in the eastern part and the western part on the basis of geology and vegetation types, the north/south line at approximately Kwiyawagi village being the dividing line.

The central mountain ranges are the southern portion of two colliding continental plates, which are causing the mountain range to rise. The lowering and rising of the sea level during the glacial and inter-glacial periods of the Pleistocene, along with continuous activity in the mobile belt which characterizes the contact zone of the two colliding lithospheric plates, has continued to promote the great biodiversity of the island of New Guinea in general, and in the Lorentz area in particular. Large tracts of the mountain range, and especially the area formed by the traditional lands of the Amungme (or Amung) are rich in mineral deposits -

especially gold and copper.

The Carstenz/Puncak Jaya section of the Jayawijaya Mountain Range still retains small ice caps. Lorentz glaciers are receding rapidly. Some 3,300ha of snowfields REMAINED IN 1992. The main snowfields comprise five separate areas of ice on the outer margins of Mount Puncak Jaya. These include two small fields which feed the Meren and Carstenz glaciers, and a small hanging glacier on the Carstenz Pyramid.

Puncak Jaya's summit consists of several peaks (Jayakesuma/Carstenz Pyramid 4,884m, Ngga Pulu 4,862m, Meren 4,808m) that developed from Tertiary rocks (Miocene). This high area was still covered by wide ice caps (13sq.km) in 1936. These ice caps melted down to an area of just 6.9 km in 1972 and further reduced to 3.3 sq.km by 1991. The remaining ice is now divided into three patches the North Wall Firn, the Meren and Carstenz glacier with only 3 sq.km of ice left. Based on climatic data, a deficit mass balance will continue as the future trend.

The lowland area is a wide swampy plain, covered with virgin forest and intersected by countless winding rivers and streams, mostly tidal. The largest of these rivers empty into the shallow Arafura Sea, which separates the island of New Guinea from Australia.

The Regional Physical Planning Program for Transmigration recognised 9 physiographic types and regions (beaches, tidal swamps, meander belts, peat swamps, alluvial valleys, alluvial fans, dissected terraces, mountains and alpine summits) with 13 major land systems.

## CLIMATE

Lies within the humid tropical climatic zone. Rainfall in the lowland area averages 3700mm (3160-4100mm per annum). Western winds prevail between October and March, while the Eastern winds blow from April until September. The period from December until March is usually characterized by high waves in the coastal areas. Daytime temperatures range from 29-32 degrees C in the lowlands, to below freezing above the 4800m contour line. Early morning snow on top of the summits of Mt. Trikora and Mt. Jaya, or even down to 3800m, occurs regularly, but permanent snow and ice is only to be found in the Mt. Jaya area. In the mountains, the weather conditions are more dependent upon the immediate topography. Rainfall in the higher valleys ranges between 3500 and 5000mm/year.

## FLORA

Based on physiographic types, five altitudinal vegetation zones have been identified within Lorentz National Park: lowland zone, montane zone, subalpine zone, alpine zone, and nival zone. Some of the zones are further divided into subzones.

The lowland zone comprises the Beach Subzone (0-4m altitude) covered by a vegetation ranging from pioneer herbaceous communities on the first beach ridge to tall mixed forest inland. The tidal swamp subzone (0-1m) comprises one land system, the Kajapah land system (KJP) consisting of inter-tidal swamps of mangrove and nipah palm. The muddy south coast of the park supports extensive mangrove communities that are probably the most diverse in the world. Five mangrove communities have been described: *Avicennia/Sonneratia* community, *Rhizophora*-dominated community, *Bruguiera*-dominated forest, *Nypa*-dominated forests, and Landward mixed mangrove forest. The lowland freshwater swamps (of Peat Swamp subzone, 3-50m) are very extensive, reaching 50 kilometers inland in the western part and more than 80 km along the eastern boundary. The swamps contain a diversity of vegetation types, including open water, herbaceous vegetation, grass swamps, peat swamps, woodlands and swamp forests. The alluvial Fan Subzone (50-150m) consists of alluvial fan plains and resembles most closely the theoretical climax vegetation type for the area. Tropical dryland evergreen lowland forest. Dominant families include Annonaceae, Burseraceae, Dipterocarpaceae, Ebenaceae, Fagaceae, Leguminosae, Meliaceae, Moraceae, Myrtaceae and Sterculiaceae.



**Picture 3: Nypa Forest**

The montane altitudinal zone comprises the Kemum Land System, which consists of steep-sided deeply dissected mountain ridges. This altitudinal zone is subdivided into lower montane subzone, mid-montane subzone and upper montane subzone. The lower montane subzone (600-1500m) includes the

foothills and lower montane slopes. The forest is very distinct from the surrounding zones. It differs from the alluvial forests in being lower and more closed. These forests form the most floristically rich zones of New Guinea and contain more than 80 genera and 1200 species of trees. The vegetation types of the mid-montane subzone are mixed mid-montane forest, *Castanopsis* forest, *Nothofagus* forest, coniferous forest, mid-montane swamp forest, mid-montane sedge-grass swamp, mid-montane *Phragmites* grass swamps, mid-montane *Miscanthus* grassland and succession on abandoned gardens. The mid-montane forest in this altitude is referred to as cloud or mossy forest.

The subalpine zone occurs from 3200m to 4170m. All alpine zones are located above 4170m and consist of alpine peaks with bare rocks and residual ice caps. The lower subalpine forest is floristically poor. The forest in this zone has a closed canopy, which reaches to 10m height, with emergents up to 15m. *Rapanea* sp., *Dacrycarpus compactus* and *Papuacedrus papuas* tend to be dominant species. Near the forest limit, the forest is dominated by Ericaceae and Epacridaceae.

The alpine zone lies between 4170m and 4585m. The alpine vegetation includes all communities growing above the tall shrub limits. These are grassland, heath and tundra. The dominant grasses at 4200m are *Agrostis reinwardtii*, *Deyeuxia brassi*, *Anthoxantium angustum*, *Monostachya oreoboloides* and *Poa callosa*. The ground is covered by bryophytes and lichens and scattered scrubs are common.

## FAUNA

The fauna is estimated to comprise 164 sp. of mammals and 650 sp. of birds and 150,000 sp. of insects.

In the highlands of Lorentz National Park, 6 species are endemic to the Snow Mountains, including the Mountain Quail *Anurophasis monorthonyx*, the Snow Mountain Robin *Petroica archboldii* and the Long-tailed Paradiagalla Bird of Paradise, *Paradiagalla caruneulata*. Twenty six species are endemic to the central Papuan ranges EBA (Endemic Bird Area) while three species are endemic to the south Papuan lowlands EBA.

Globally threatened animal species, of which at least 10 species are found in the area, include the Southern Cassowary, *Casuarus casuaris*, Southern Crowned Pigeon, *Goura scheepmakeri* and Pesquet's parrot, *Psittichas fulgidus* found in the lowlands. Vulnerable and threatened birds of the mountains include Salvadori's Teal, *Anas waigiuiensis*, the Snow mountain robin, *Petroica archboldii* and *Macgregoria pulchra*.



**Picture 4: Bird of Paradise**

Mammals include two of the world's three monotremes; the Short-beaked Echidna *Tachyglossus aculeatus* , a species shared with Australia, and the Long-beaked Echidna *Zaglossus bruijii* , a New Guinea endemic. Mammals also include a range of marsupials including at least four species of cuscus, several species of tree kangaroo *Dendrolagus* spp. and one species of Dasyuridae which is often referred to as the "Tiger cat" *Dasyurus albopunctatus* . 324 species of reptiles have been identified in the site. Little is known about the diversity of amphibians. Ninety species have been collected during the survey in 1997 and more species are supposed to occur. Species of conservation concern include the new undescribed species of lizard *Lobulia* sp. Restricted to the subalpine zone, the rare Fly River Turtle *Carettochelys insculpta* , which reaches its recorded occurrence in Lorentz National Park. It is threatened by hunting, egg collection and trade) and two species of crocodiles *Crocodylus porosus* and *C. novaeguineae*.

It is estimated that more than 100 species of freshwater fish species occur in the park. Catfishes, rainbow fishes, gobies and gudgeons are particularly common.

## CONSERVATION VALUE

In 1991, the area was listed as one of the sites with highest priority for conservation in Indonesia's National Biodiversity Action Plan.

The park is particularly important for its size and richness, diversity and representativeness of its flora and fauna. ie. Largest forested protected area in Asia/Pacific region. It is an almost 90% pristine, unspoiled wilderness.

It is of greatest importance for the protection of an integrated wilderness transect of southern Irian Jaya, which ranges from major lowland ecosystems through mid altitudes to alpine ecosystems. It protects species that need to move along an

altitudinal gradient throughout the year.

## MANAGEMENT CONSTRAINTS

A number of management problems are due to the activities of the large Freeport gold mine, which is located on the slopes of the Carstenz massif near Mount Puncak Jaya and which began in 1972.

The predominantly open cast mining techniques have had a number of negative environmental impacts, including river pollution, oil spillages, logging for fuel supplies and extensive building development for the 4,000 strong work force (Kartawinata and Widjaja, 1988; Petocz, 1989).

Other threats include three road schemes which would traverse Lorentz National Park including a road between Timika on the western boundary and Aramsolki in the centre of the park (Kartawinata and Widjaja, 1988).

A large area of the Park was under mining exploration but the larger of these have been declared invalid. One petroleum exploration title remains in the park, located in the south eastern edge of the park and held by Conoco.

A minor and localised threat comes from uncontrolled tourism developments in the Lake Habbema area (a high altitude swampland). Trekking tourism to Mt. Jaya has already had a severe ecological impact due to littering and firewood collection. In September 1997, an extraordinary drought caused by the El Niño phenomenon led to severe forest fires starting from small-scale land clearings by local farmers, affecting at least 6,000ha within the park. A forestry concession outside the eastern boundary of Lorentz also directly affects the site by promoting water access illegal logging. Hunting and trade of protected species and the introduction of exotic species has been identified as a problem.

### **3. LOCAL POPULATION IN LORENTZ NATIONAL PARK**

There are approximately 11,000 local inhabitants who are members of various tribes within the park.

Lorentz National Park stores many cultural heritage from its indigenous tribes. 2001 Monitoring Center records eight (possibly nine) different ethnic groups among its indigenous population, namely Nduga, Amungme, Damal, Nakai, Asmat Keenok, Sempanm, Dani, and Komoro. They have been inhabiting the land for more than 24,000 years and have since developed some of the world's most isolatedly typical cultures. This, for example, can be seen in Dani tribe, living in Baliem valley. In the southern part, Komoro, Asma, and Sempan that are living along the rivers, lowland, and swamp areas, engage in semi-nomadic life. Their way of life is supported by simple yet effective agriculture.



**Picture 5: The local people**

Some of the ethnic groups inhabiting Lorentz area are Komoro, Sempan, Asmat Utara, Amungme, Nduga, and Dani Barat. Asmat is famous for its internationally wellknown wood carving. Many other traditional grace and wisdom can be seen in other tribes.

According to a resource person, the number of the tribes actually outnumber the list mentioned. The list of tribes is made by Freeport in order to give one percent concession to the listed tribes. This sparked off dissension among the tribal groups.

These traditional economies have evolved in harmony with the environment and are controlled by a complex system of cultural taboos and rituals that have helped to prevent over-exploitation of forest resources (Kartawinata and Widjaja, 1988; Petocz, 1989, Manembu, 1991).

The highland people include Amungme (Damal), Western Dani, Nduga, and Ngalik. They practice rotational agriculture of root crops, mainly taro and sweet potatoes. Pigs play an important role in rituals.

The lowland people within the park (Asmat, Mimika and a yet undescribed group called Somohai in the southern foothills close to the Baliem gorge depend almost entirely on Sago (*Metroxylon sago*) as a food source. The Mimika are divided in two linguistic groups, the Sempan and the Kamoro. The Kamoro live in the south-western corner of the park while the Sempan inhabit the south-eastern part. Two Asmat linguistic groups live within Lorentz National Park, Emari Ducur (Sumapero, Nakai, Au, Kapi, As-Atat) and Unir Siran (Keenok: Ipam, Esmapan, Iroko, Jakapis) while the Joerat group lives east of the park boundary around the villages Sawa and Erma.

There are approximately 1000 Mimika and 1300 Asmat. The number of Nguga living within the borders of the park is estimated at 1500 people. The Amungme (Damal) tribe is found in the Central Highland, south and north of Mr. Jaya, spread out over a least 30 communities.



**Picture 6: The local people**

Since the 1960's the Amungme people of the Lorentz area have seen rapid changes come to their land and their lives, due to the initiation of a massive mining operation on their land which commenced operation in 1972. They rarely use land in the upper alpine regions (above 4000m) as this area is considered sacred. The upper montane areas (3000-4000m) are mainly used for hunting and gathering. Amungme villages are usually found at elevations of 1000-2000m above sea level although they now also live, hunt or gather at even lower elevations in lowland forest and on the plains (0-100m).

Many of the indigenous Amungme tribe, have become displaced by the oil operation. There is however a Law No.5 and the joint decree from the Ministry of Forestry and Mines and Energy 1989 and 199, prohibiting any mining inside national parks.

## **4. OTHER ACTORS**

Since 1990, WWF Indonesia Program has been working in the Park. In cooperation with PHPA, WWF prepared a framework park management system that will take into account the traditional land tenure and resource use systems of the tribal communities living within the park.

From 1990 onwards, WWF has gathered basic social and human ecological information on the various tribal groups in the park as a first step in the process of developing the management plan. WWF and PHPA in cooperation with the Government have started a participatory resource mapping program to rationalize land use planning in the buffer zone and involve local people in boundary delineation, park zonation, and buffer zone development, particularly since the status changed from Strict Nature Reserve National Park in 1997.

WWF is working with what they call “major stakeholders”, including provincial and district governments, NGOs, local communities and private sector such as Freeport Inc.) in management planning.

The government of Indonesia is promoting private sector investments and government sponsored projects such as the development of a new town, infrastructure, transmigration, agriculture and industries.

## 5. THE LEGAL STATUS

Conservation programs in Lorentz area was started during the Dutch colonial era in Indonesia (1919). The Dutch gave a small portion of the area Natural Monument Status. But in 1956, an unsettled conflict of land ownership rose and annulled the status.

1970

In 1970, the area is proposed to be the protected area of Irian Jaya by Indonesia's Directorate General of Forestry, IUCN, FAO, and WWF. Since then, it was legally recognized as a preservation area.

1978

In 1978, it was established as a Strict Nature Reserve (Cagar Alam) by the Indonesian Government with an area of 2,150,000ha.

1981

In 1981 FAO and UNDP signed a National Conservation Plan for Indonesia and determined Lorentz to be a conservative area considering its width and natural wealth, variety of biodiversity, as well as its huge collections of wild life. In 1987, local government of Irian Jaya propose the World Heritage status for the Lorentz Conservative Area. PHKA followed it up by appointing WWF Program to help realize its management. In 1990 WWF started its research in order to develop and apply National Park Management System concerning Natural Resource Development System as well as Local People's Right (*Hak Ulayat*) for the indigeous people living within the national park. After a research and information gathering was done, in 1997 Lorentz's status changed into national park with the issuance of Freeport Working Contract (Kontrak Karya Freeport) at the national park area by Minister of Forestry.

1990

Based on government regulation No.5 1990, national parks together with protected forests and tourism forests are determined to be Nature Preservative Areas (*Kawasan Pelestarian Alam*) that functions as a protection to Life Support System, conservation and sustainable utilization of biodiversity and wildlife along with their ecosystem.

1997

Based on a letter signed by the minister of forestry Djamiludin Suryohadikusumo on March 19 1997, Indonesia's Ministry of Agriculture and Forestry changed the function of around 1,907,500 square hectares of Lorentz Conservative Area, 373,125 square hectares Trikora Conservative Forest, as well as the surrounding 224,975 square hectares water area in Irian Jaya into a 2. 505.600-square hectares Lorentz National Park.

1999, Becoming World's Heritage

In 1999 the national park was accepted as World Heritage by the UNESCO.  
By contrast, the *Lorentz National Park Conservation Project* comprises a community initiative for the conservation of communal and ecological heritage surrounding the Lorentz National Park areas.



**Picture 7: Glacier at Lorentz National Park**

The glacier near the Freeport copper-gold mine in Irian Jaya

## 6. EXTRACTIVE INDUSTRIES IN THE PARK

### Freeport

In 1936 took place a famous expedition led by the Dutchman Colijin. One member of his team Dr. J.J. Dozy discovered the extremely rich copper and gold deposits in the Carstenz area, and his findings led to a massive mining operation by Freeport Indonesia.

Freeport mining project in Lorentz National Park began in 1950, on a 10 square km-area in the middle of Erstberg mountain area to the Dutch government. The company was granted an Exclusive Concession permit by the Dutch Colonial Government. The exclusive permit was then continued by the Indonesian government by giving it Izin Kontrak Karya in 1967, allowing the company to start exploring the southern parts of Jayawijaya mountain.

Freeport's initial investment capital of US\$ 75 million on a one hundred hectare Kontrak Karya Area rose up in the 90s into US\$ 3 billion for an area then larger by 260 times, 2,6 million hectares under a new Kontrak Karya permit made in 1991. Here's the list of Freeport's stakeholders in 1991:

No	Stake holder	Percentage of Ownership
1	Freeport McMoran	81,28 %
2	Indonesian Government	9,36 %
3	Indocopper Investama Ltd.	9,36 %
4	Other investors	2 %

The new Kontrak Karya area covered western part of Weyland Mountain, Mambaramo, up to Bintang Timur on the border line between Indonesia and Papua New Guinea. Mount Grastberg is believed to have 51,8% (82, 362 ounces) of Indonesia's 157 million ounces gold.

Not only was gold found, but also silver and copper. Together, those natural resources gave Freeport annual income of US\$ 416 million, an incredible increase from US\$23 before the company entered Irian Island. This made Freeport one of the three biggest mining corporation in the world. Erstberg and Greatberg Mounts are within Lorentz National Park. Mining activity would certainly destroy the sustainability of natural ecosystem in the national park.

To clean the imagen of the company, in Between World War II and recent times, limited scientific work was conducted in the area. In 1996 and 1997 vegetation and wildlife biodiversity surveys were conducted in the area just west of the

Lorentz NP as part of Freeport's reclamation project and environmental impact assessment (Amdal 1997).

Also, the provincial government in co-operation with Freeport Indonesia have developed a spatial plan that directs all development away from the Park and creates a large buffer zone along its western boundary.



**Picture 8: Mining at Lorentz National Park**

## **CONOCO WARIM LTD MINING ACTIVITY**

Conoco used to be the fifth-largest U.S. based energy company and after the merger with Phillips petroleum in 2001, Conoco-Phillips has become the third-largest integrated U.S. energy company. On a global basis, it is the sixth largest publicly held company based on hydrocarbon reserves and production, and it is the fifth-largest global refiner.

### **Gas Concession to Conoco Warim LTd.**

The 1993 Incentive Package especially established for explorative activities, as well as oil and gas production in frontier areas created a new disaster to Lorentz area. 150.000 Ha will be affected.

According to Indonesian government, the policy was to anticipate the crisis caused by significantly decreasing reserve of oil and gas.

Soon, several oil and gas reserves were found, some of which are Bintuni Irian Jaya, Wiriagar Structure (2,9 TCFG), Ofaweri (345 BCFG) and Vorwata (10,

TCFG), Merah Besar Structure (100 MMBOE), West Seno (230 MMBOE) and Warim Block, Papua.

Based on the 1987 Production Sharing Contract between Indonesia's Pertamina and Conoco Warim Ltd, CONOCO WARIM LTD holds the mining concession for Warim Papua area, covering 43, 944 km<sup>2</sup> in Warim, Irian Jaya.

#### Oil Authority Aspect

1. Pertamina is entitled to commit 'sell option' for its portion of oil to any contractor, in order to prevent Pertamina's portion to fall under 50% of the total production number.
2. If oil is found, the constructor will allocate 10% interest to participating Indonesian corportion determined by Pertamina.
3. If production always reaches 175,000 barrels per day (bpd), Conoco provides 28.57% of its production to be processed in Indonesia and builds oil refinery facility if it's not available yet.
4. Constructor is obliged to provide oil for the country's fuel on proportional basis for US\$ 0.2 per barrel after the fifth production year.
5. The 43,944 Km<sup>2</sup> operational area is to be gradually restored to only 8,789 Km<sup>2</sup> in the sixth production year.

Here are Conoco's other oil and gas potentials in Warim Block:

#### Conoco's Oil and Gas Potential in Warim Block

No	Prospect's name	Oil Reserve (million barrel)
1	Murup	170
2	Waropko	125
3	Arimit	50
4	Takum	30
5	Jamar	20
6	Cross Catalina	200
7	Lorentz	640
8	East Muras	210
9	Steenkool	200
10	Sande	170
11	Lisa	140
12	Keneyam	120
13	Catalina	60
	Total	2.135

Laurentz Natinal Park is not the only Protected are where Conoco had operated. In 1987, Conoco began drilling in Ecuador's rainforest. Ecuadorians have suffered major oil contamination ever since. The oil production has threatened

the existence of one of the most remote tribes of Indians in Ecuador, the Huarani. Conoco, as one of the oil companies educating the Huarani, has worked hand-in-hand with evangelical missionaries to indoctrinate the Huarani to strip them of their culture and to pacify them. In an effort to use the Huarani's land to extort oil, Conoco attempted to persuade the tribe to leave their land. A Huarani leader remarked in response to these actions: "the oil company was trying to wipe out the entire Huarani culture for enough oil to keep the United States going for only thirteen days" (earth rights, 2003).

In the Orinoco delta in Venezuela - the last of the world's great river deltas with pristine ecosystems - is currently put under pressure by a large Conoco oil-drilling project. Conoco will drill 500 wells and construct 210 kilometres of pipeline to transport the oil to the nearest city Jose. Through dredging, drilling and deforestation, Conoco's project will devastate a unique ecosystem and indigenous people depending on natural resources. The estuarine delta hosts a rich variety of mangrove tree species, aquatic and terrestrial flowers and is providing habitat for many threatened animal and plant species. Even if Conoco does apply the "strictest environmental standards" that they supposedly have "successfully used in other environmentally sensitive areas", the likelihood of oil spills is still extremely high as the Orinoco delta region is susceptible to earthquakes and tidal action that could break pipeline and damage storage facilities (Earth Rights, 2003).

## **7. CONFLICTS OVER OVERLAPPING STATUS**

In January 1978, Indonesian government pointed the forest areas between W. Newerit --W. Nogolo and S. Arman Ville, about 2,150,000 hectares wide, as Lorentz Conservative Areas (CA). On its west side, it borders the 375,125-ha Gunung Trikora Conservation Forest. But in May 1987 a deal of cooperation was signed between Pertamina and Conoco Warim Ltd for explorative activities in the 7,8-hectare Limited Productive Forest whose permit was granted by Indonesia's Directorate of Forestry Inventory and Usage Guidance, valid for 6 months without any extension.

The overlapping status has then occurred for Lorentz National Park, Conoco Concession Area, and Trikora Conservative Forest totaling 200,000 square hectares in width.

Ministry of Forestry admitted that the overlap has occurred ever since the statuses were determined, but has never been exposed and paid attention to. So when operational area of Conoco Warim Ltd. was determined, the problem of status hadn't come up yet.

In 1997, Conoco Warim Ltd claimed that the Ministry of Forestry, without first consulting the parties involved, expanded the conservative area. It resulted in an overlapping status of the 157,700 square hectare-area.

But Conoco Warim Ltd didn't know it until 1998, immediately suspending its explorative activities in the area. Conoco should have known the problem since it first operated in 1987 because the legalization of Lorentz Conservative Area was back then in 1978.

For this, in 1999 Conoco Warim sent a protest letter to Ministry of Agriculture and Forestry. Besides Conoco, other parties asking for settlement of the problem were Coordinating Minister of People's Welfare and Poverty Alleviation and Minister of Mining and Energy.

Conoco Warim Ltd. Still wants to continue its activity within the National Park Area. The 157,700 square hectare-land that Conoco demands still need to be researched and explored until 2002. If the area won't be economic for mining, then it should be handed over to the government.

### **Government's response**

In response to Conoco's demand, Bureau of Planology, Forestry and Agriculture on September 21 1999 banned mining activity in Lorentz National Park. As an alternative solution, government allowed diagonal drilling from outside of the national park.

This policy was supported by a note of Directorate General of Nature Conservation and Protection No. 1175/Dj-V/KK/99, issued on October 27 1999,

banning oil exploration done by Conoco Warim Ltd in the national park which was regarded as world heritage.

Chief of Bureau of Forestry and Agriculture, on its letter No. 1579/VIII-POLA/1999, November 15, handed over this issue to the Law and Organization Bureau, Secretariat General of Forestry and Agriculture. Consultation with Bureau of Law and Organization on November 19, 1999, resulted in the following conclusion:

According to Regulation No. 5 1990 on Conservation of Nature, Biodiversity, and Ecosystem, conservative area within the national park is its main zone and thus its utilization must be in line with the forest's function. The regulation is followed up by Government instruction No. 68 1998 on Nature Conservative Area and Nature Preservation Area.

In the third chapter of a joint letter between minister of mining and energy and minister of forestry No. 969.K/05/MPE/1989; 429/kpts-II/1989, August 23 1989, it stated that the location and expansion of the National Park in which there have been oil and gas exploration and exploitation are excluded from the national park area.

The ninth chapter stated that to settle the problem of overlapping status, a coordinating team was established along with its operating team whose members were recruited from the ministry of mining and energy and ministry of forestry (SKB No. 1101K/702/MMM.PE/1991-436/Kpts-II/1991, 31 December 1996).

According to Law No.4 1999, verse 38, if the conservative area is to be utilized for nonforestry functions such as mining activity that will expectedly benefit the conservative area, national park and the local people, then its function should be shifted into Limited Production Forest (HPT). However, this had yet to satisfy the local government of Irian Jaya.

The impacts of the oil activity to the national park, such as

- contamination,
- building of infrastructure,
- roads,
- spills,
- leakings of oil,
- waste treatment (liquid, solid and gas)

## Threats

Various threats to the national park have appeared in the last twenty years. The area which became national park in 1999 was first disturbed when Freepot tailing

project entered its western area. The activity caused broad ecological impacts to the low land forests and mangrove along the Aijkwa River. Others range from oil exploration plan in the eastern part of the national park, destructive logging and illegal logging on the 250-square hectare Wamena and Timika, to road constructions in the area. Eaglewood hunting in the park continues to destroy the local ecosystem. There have also been some catchings of endangered animals and plants such as black-headed parrot, snakes, and some wild orchids.

The absence of operational units and the park’s representatives that is directly in charge in its conservation and management. Up to the present, the task is still handled by BKSDA Papua I-II as a project with a fund allocation of only 320 million Rupiah for its 2.5 million square-hectare area. So far the park hasn’t been appropriately arranged, enabling irresponsible culprits to shift its conservative functions. It’s strongly alleged that illegal loggings have been committed, although not yet identified due to wide area coverage and harsh geographical condition which makes their whereabouts hard to detect. There hasn’t been zone divisions to the national park area; nor area planning—a key to zone divisions.

Area Conservation Director of Ministry of Forestry, Ir Adi Susmianto, said that Council of Lorentz National Park (Balai TNL) is not only determined by Forestry Department, in this case Directorate of Conservation of Natural Resources, but by State Coordinating Minister because it deals with funding, work force, and provision of new facilities.

#### Threats to Lorentz

No	Threat	Caused by	Additional Information
1	Mining	Freeport	ongoing
2	Mining	Conoco	Still disputed
3	Area Extension	Local Government	Has been rampant in many areas
4	Forest Destruction	Other Party	Has been rampant in many areas

## **8. BASIS FOR A MORATORIUM**

The IUCN Amman Resolution calls to stop any mining activity in protected areas under categories I - IV. Later, in the IV IUCN World Park Congress in Durban, there was a decision of some companies to stop mining (for oil and minerals) in World Heritage Site.

In that Congress Adrian Phillips, World Commission on Protected Areas (WCPA), outlined challenges for the extractive industry, including commitments: not to extract resources from PAs in categories I-IV; not to seek to overturn national legislation prohibiting mining activities in PAs; and to accept the IUCN PA categorization.

In this line, the International Council of Mining and Metals (ICMM) has recently pledged through a dialogue with the IUCN to treat UNESCO World Heritage sites as "no-go".

In Indonesia the laws prohibits mining activities in National Parks (Forestry Act No.41/1999).

All Indonesian mining contracts state that the company must obey Indonesian statutes and regulations including environmental protection laws. These regulations and statutes may change from time to time to adjust to the needs of the environment and social condition for the benefit of the Indonesian people. Indonesia has committed to the global conservation of protected areas and natural biodiversities by ratifying the Convention on Biological Diversity(CBD) and agreed to the Statement of Forest Principles. It is part of the United Nations Forest Forum (UNFF).

Indonesian environment groups therefore insist that Indonesia must honour and implement the international agreements it has entered into. Meanwhile, they demand that other countries respect laws made to conserve and protect Indonesia's environment.

At the local level, in 1999 the legislative council of Irian Jaya has asked US-based oil company PT Conoco to stop its oil exploration in the Lorentz National Park.

Provincial legislators are very concerned about the oil exploration in the Lorentz National Park, which has been named a world heritage site by UNESCO," the secretary of the assembly's commission on human rights and environment, said Anthonius'S Kelanangame. Anthonius said Conoco's activities would harm the flora and fauna and melt the ice covering Mt Cartenz in the Puncak Jaya district.

The Lorentz Park is located on 1,450,000 hectares of land owned by six districts Puncak Jaya, Nabire, Mimika, Paniai, Jayawijaya and Merauke.

## **9. POSITION ON JATAM ON MINING IN PROTECTED AREAS**

### No Mining in Protected Areas

Deforestation in Indonesia has reached 2.4 million hectares (1.2%) per year or approximately 10 acres of rainforest a minute.

Act 41/ 1999 bans mining in protected forest areas. Now, more than 150 mining companies are encroaching on 11.4 million hectares of protected area, including 8.68 million hectares of protected forests and 2.8 million hectares of conservation areas. The House of Representatives (DPR) have remained silent in its decision to grant mining licences in protected areas

The mining industry has a large area of operation covering 66.891.496 ha (more than 35% of Indonesia's land area) in 2001. Not satisfied, the mining industry, with the assistance of several foreign Embassies, has been relentlessly lobbying Indonesia to drop their environmental protection laws and the ban on mining in protected area

BHP Billiton, Newcrest, Newmont, Placer Dome, and Rio Tinto, and Inco are all members of the International Council of Mining and Metals (ICMM) who have committed to 'respecting legally recognized protected areas', while at the same time are hypocritically pressuring Indonesia to drop its ban on protected areas

The ICMM announced on August 20, through its dialogue with the World Conservation Union (IUCN), that it would treat all World Heritage Sites as 'no-go'. BHP Billiton, who was a participant in this dialogue continues its quest to mine on Gag Island, of the Raja Empat archipelago in the eastern part of Indonesia, despite the fact that UNESCO has shortlisted it to be a natural World Heritage Site

JATAM and the No Mining in Protected Areas coalition calls on the parliament to stand firm in its environmental standards and to save the forests of Indonesia from the devastating effects of mining by enforcing Act 41/1999.

## ***10. Call to Action on the IUCN and mining in protected areas***

The IUCN World Parks Congress in Durban is an opportunity for civil society to have their voices heard and to stand up for protected areas. The IUCN Amman Resolution that disallows mining in protected areas **MUST** be implemented and strengthened.

The International Council of Mining and Metals (ICMM) has recently pledged through a dialogue with the IUCN to treat UNESCO World Heritage sites as “no-go”. However, in Indonesia members of ICMM are shamelessly pressuring the government to overturn prohibition against open-cut mining in protected forests (Forestry Act 41/1999). ICMM members also hold leases over national parks in Indonesia, and their activities threaten current and potential UNESCO World Heritage Sites such as Lorenz National Park and the Raja Ampats archipelago.

In Indonesia, a coalition of organizations and students including WWF Indonesia, Walhi (Friends of the Earth Indonesia), JATAM (Indonesian Mining Advocacy Network) and the Mineral Policy Institute have been working to stop the mining industry from encroaching on Indonesia’s protected areas. Similar struggles are underway in Ghana, the Philippines, Ecuador, Turkey, Tibet, Canada and Australia.

We must send the IUCN the message that despite the ICMM rhetoric regarding biodiversity and conservation, a dialogue with the global mining industry is counterproductive as long as companies such as Rio Tinto, Newmont, Placer Dome, Inco, and BHP Billiton continue to pressure governments and communities to allow them to mine in protected areas.

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