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World Heritage Patrimoine mondial

38 COM

Distribution limited / limitée

Paris, 16 May / 16 mai 2015

Original: English

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION
ORGANISATION DES NATIONS UNIES
POUR L'EDUCATION, LA SCIENCE ET LA CULTURE

CONVENTION CONCERNING THE PROTECTION OF THE WORLD
CULTURAL AND NATURAL HERITAGE

CONVENTION CONCERNANT LA PROTECTION DU PATRIMOINE
MONDIAL, CULTUREL ET NATUREL

WORLD HERITAGE COMMITTEE / COMITE DU PATRIMOINE MONDIAL

Thirty-eighth session / Trente-huitième session

Doha, Qatar
15-25 June 2014 / 15-25 juin 2014

Item 7 of the Provisional Agenda: State of conservation of properties inscribed on the World Heritage List and/or on the List of World Heritage in Danger.

Point 7 de l'Ordre du jour provisoire: Etat de conservation de biens inscrits sur la Liste du patrimoine mondial et/ou sur la Liste du patrimoine mondial en péril

MISSION REPORT / RAPPORT DE MISSION

Lorents National Park (Indonesia) (955)
Parc national de Lorents (Indonésie) (955)

11-18 March 2014

This mission report should be read in conjunction with Document:
Ce rapport de mission doit être lu conjointement avec le document suivant:

WHC-14/38.COM/7B.Add

IUCN

**REPORT ON THE WORLD HERITAGE REACTIVE MONITORING MISSION TO
Lorentz National Park, Indonesia
From 11 to 18 March 2014**

Koen Meyers, IUCN
April 2014

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ACKNOWLEDGEMENTS

The mission wishes to acknowledge the assistance provided by the following organisations:

- The World Heritage Commission Implementing Council (Dewan Pelaksana Komisi Warisan Dunia) under the Deputy for Coordination on Culture, Tourism, Youth and Sport, Coordinating Ministry of People's Welfare, Republic of Indonesia
- The Indonesian National Commission for UNESCO
- Directorate of Socio-Cultural Affairs and International Organisations of Developing Countries, Directorate General of Multilateral Affairs, Ministry of Foreign Affairs, Republic of Indonesia
- Directorate of Conservation Areas and Establishment of Protected Forests (KKBHL), Directorate General for Forest Protection and Nature Conservation (PHKA), Ministry of Forestry, Republic of Indonesia
- Nature Conservation Agency (BKSDA), Papua Province
- Lorentz National Park
- Directorate of Technical Oversight, Directorate General of Highways (Bina Marga), Ministry of Public Works, Republic of Indonesia
- The National Road Construction Agency (Balai Besar Pelaksanaan Jalan) for Papua and West Papua Provinces, Directorate General of Highways (Bina Marga), Ministry of Public Works, Republic of Indonesia
- Provincial Government of Papua
- WWF Indonesia - Sahul
- PT Freeport Indonesia
- UNESCO Office, Jakarta

The mission would in particular like to thank Siti Rachmania from the UNESCO Office in Jakarta for helping to facilitate the organization of the mission's visit.

LIST OF ACRONYMS

ASEAN	Association of Southeast Asian Nations
BKSDA	Balai Konservasi Sumber Daya Alam (Nature Conservation Agency)
BPLHD	Badan Pengelola Lingkungan Hidup Daerah (Provincial Environmental Management Agency)
BTNL	Balai Taman Nasional Lorentz (Lorentz National Park Agency)
EIA	Environmental Impact Assessment
Kemenkokesra	Kementerian Koordinator Bidang Kesejahteraan Rakyat (Coordinating Ministry for People's Welfare)
KempU	Kementerian Pekerjaan Umum (Ministry of Public Works)
KKBHL	Direktorat Kawasan Konservasi dan Bina Hutan Lindung (Directorate of Conservation Areas and Establishment of Protected Forests)
MOF	Ministry of Forestry
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
OUV	Outstanding Universal Value
PerPres	Peraturan Presiden (Presidential Regulation)
PHKA	Direktorat Jenderal Perlindungan Hutan dan Konservasi Alam (Directorate General of Forest Protection and Nature Conservation)
RPJMD	Rencana Pembangunan Jangka Menengah Daerah (District Mid-Term Development Plan)
RTRWK	Rencana Tata Ruang dan Wilayah Kabupaten (District Spatial Planning Document)
SEA	Strategic Environmental Assessment
SK	Surat Keputusan (Decree)
UP4B	Unit Percepatan Pembangunan Provinsi Papua dan Papua Barat (Special Agency for the Acceleration of Development in Papua and West Papua)
WHC	World Heritage Centre
WWF Sahul	Worldwide Fund for Nature's eastern Indonesian region

EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS

From 11 March to 18 March 2014, the IUCN monitoring mission conducted a visit to Indonesia in accordance with **Decision 37 COM 7B.13**, adopted by the World Heritage Committee at its 37th session (Phnom Penh, 2013). The mission was the third undertaken since 2008 to assess the conservation status of the property and the impact of illegal activities on its Outstanding Universal Value (OUV) and integrity. Due to the deteriorating security situation in and adjacent to Lorentz National Park, the mission could not visit the property and directly assess the extent of the threats on the ground. Though the mission travelled to Papua Province, it only visited the capital of Jayapura. Because of the above restrictions, the mission had to rely on data provided by the State Party and third parties in assessing the seriousness of the threats. The mission looked particularly into (1) the status and impacts of road construction and forest dieback on the property's OUV, (2) the implementation and follow-up of the recommendations of the 2008 and 2011 missions, (3) the status of illegal activities and other threats affecting the OUV of the property and (4) the management effectiveness of the property. The main conclusions and recommendations of the mission are summarized below:

According to the mission, the OUV of the property is currently being maintained despite a number of threats. As threats to the property are expected to increase in the coming years, the State Party will have to show a strong commitment to maintain its OUV and integrity by following up on all the recommendations drafted by the current as well as previous missions. The mission considers that a lack of follow-up on these recommendations should lead to the property being inscribed on the List of World Heritage in Danger.

One of the main concerns raised by the 2008 and 2011 missions was the continuation of the construction of the Habema - Kenyem road in the north-eastern part of the property despite the lack of a comprehensive Environmental Impact Assessment (EIA).

The mission was informed that the construction of the road has currently been halted, pending the finalization of the EIA. During the mission, the State Party has indicated a strong commitment to maintain the property's OUV by showing its readiness to allocate additional funding to mitigate all environmental impacts of the road through technological and managerial interventions. The State Party also committed itself to assess and rehabilitate all environmental damage caused by the construction of the road in the past.

During the coming years, the State Party should ensure that it will (1) adhere strictly to the recommendations of the EIA, (2) rehabilitate the damage caused by the past construction and (3) strictly monitor and control future development pressures to avoid any impacts on the OUV of the property, including the conditions of integrity. If this cannot be achieved, the property would be likely to become increasingly threatened, to a point where it could meet the criteria for inscription on the List of World Heritage in Danger.

According to the recently finalized zonation scheme, the currently proposed route of the road will not cut through any core or wilderness zones of the property. Although the road will contribute to a certain extent to the fragmentation of the park, a continuity of the ecological transect from snow-capped mountains to tropical marine environment will still be guaranteed. The extensive size of the property is one of the guarantees ensuring the integrity of the habitats it hosts. The distance between the most western location of the road and the western boundary of the property measures more than 100 km. This distance should ensure an area vast enough to maintain the property's integrity, provided that there will be no further development pressures anywhere in the property.

To address the concerns of the previous missions regarding the dieback of *Nothofagus*

forest, the State Party has commissioned several studies regarding the topic. Until this day, only an initial assessment has been conducted. The result of this assessment shows that the dieback might be caused by three possible pathogens, however, it is inconclusive about the main drivers of the dieback. The mission therefore suggests that the State Party conducts more research, and outlines an action plan with management guidelines to address the dieback, as already recommended by the previous missions in 2008 and 2011.

The State Party needs to be acknowledged for its efforts in increasing its budget allocation for the property by 65% over the last three years (from IDR 9,695,314,000 in 2011 to IDR 15,047,364,000 in 2014). Unfortunately, the current budget is still not sufficient to efficiently manage a national park as large as Lorentz and deal with the complexities on the ground. The Lorentz National Park Agency employs 69 people, of whom 35 are forest rangers. Hypothetically, this means that one forest ranger has to patrol and guard an area equivalent of 67,143 hectares, which is an impossible task, taking into account the difficult conditions on the ground.

The mission recognizes the State Party's efforts since the 2011 mission, including the establishment of a collaborative management board and an increase in capacities of staff. However, despite these efforts, the mission shares the same concerns as the previous missions regarding the managerial weaknesses of the national park authority. The national park authority lacks an early warning system, using an integrated monitoring mechanism, to detect as well as a respond to threats. The lack of such a system for a property as complex and vast as Lorentz leaves it exposed to a broad range of threats.

The mission makes the following specific recommendations:

- R1. Upgrade the echelon of the Lorentz National Park Authority within the Indonesian governmental structure from Echelon III to Echelon II, considering the national park's vast area and the number of districts located within its boundaries, in order to increase its capacity to coordinate and negotiate with other government agencies.
- R2. Issue a Ministerial Decree to endorse the Collaborative Management Agreement of the Lorentz National Park.
- R3. Increase the number of personnel of the Lorentz National Park, in particular forest rangers.
- R4. Revise the zonation and management plan, incorporating OUV and its attributes that justify the inscription of the property on the World Heritage List.
- R5. Develop and establish an early warning system, using an integrated monitoring mechanism, to detect and respond to emerging threats, such as illegal construction and illegal logging.
- R6. Finalize the Environmental Impact Assessment (EIA) for the Habema-Kenyem road as soon as possible, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and incorporate the OUV and criteria under which Lorentz National Park was inscribed on the World Heritage List, and submit the document to the World Heritage Centre by 1 February 2015 for review by IUCN, in accordance with paragraph 172 of the *Operational Guidelines*.
- R7. Assess the environmental damage of current road construction and develop an action plan, including a realistic time-line, for rehabilitating all damaged areas.

- R8. Adopt and implement all guidelines and recommendations of the Environmental Impact Assessment and the action plan to rehabilitate all damaged areas to ensure that the OUV and integrity of the property are maintained.
- R9. Assign an independent scientific authority to monitor the impacts of the road and the results of the rehabilitation process for a period of five years (2015-2020).
- R10. Conduct further in-depth studies regarding *Nothofagus* dieback, including an assessment of the health of all *Nothofagus* forests in the property, and develop an action plan to address the dieback.
- R11. Seek international collaboration in addressing the *Nothofagus* dieback, to complement the available national scientific expertise on the topic as required.
- R12. Support districts which have administrative boundaries overlapping with the property to conduct Strategic Environmental Assessments, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment, and integrate the ensuing recommendations into their respective Mid Term Development Plans (RPJM) and Spatial Planning Documents (RTRWK).
- R.13 Conduct a study to assess the magnitude of poaching in Lorentz National Park, develop an anti-poaching strategy, and provide the human, financial, and material resources required for its implementation.

The mission recommends that all the above items should be reported on regularly to the World Heritage Committee, and recommends that the State Party submits progress reports on the implementation of the above recommendations according to the following timeline:

1 February 2015: R2, R6, R7;

1 February 2016: R1, R3, R4, R5, R10, R11, R13;

1 February 2017: R8, R12;

Regular progress reports between 2015 and 2020: R9.

1. BACKGROUND TO THE MISSION

Lorentz National Park is located in Indonesia's Papua Province, along the Sudirman Range of the western central Papua highlands. The park features the Puncak Jaya or Cartenz Pyramid, the highest summit in South East Asia (4,884 masl). The total property covers an area of around 2.35 million hectares, making it the largest world heritage property in South East Asia and one of the largest terrestrial world heritage properties in the world.

Lorentz National Park is one of only three tropical regions of the world that have glaciers, and is the only protected area in the world which incorporates a continuous, intact ecological transect from snow capped mountains to a tropical marine environment, including extensive lowland wetlands. This continuous ecological transect is an integral part of the property's OUV. Located at the meeting point of two colliding continental plates, the area has a complex geology with on-going mountain formation as well as major sculpting by glaciation and shoreline accretion, which has formed much of the lowland areas. These processes have led to a high level of endemism and the area supports the highest level of biodiversity known in the region. The area also contains fossil sites that record the evolution of life on New Guinea. With all of these values, the property was nominated by the Government of Indonesia in 1998 and listed as a natural World Heritage property in 1999 under criteria viii (Earth's history and geological features); ix (Ecological process); and x (Biodiversity and threatened species).

The area was designated as a National Park in 1997 by a Decree of the Minister of Forestry. The property has an outstanding range of ecosystems representative of the biodiversity of Australasia. Thirty-four vegetation types and 29 land systems have been identified. Until now 123 mammals have been recorded in the national park, representing 80% of the total mammalian fauna of Papua. The property also has a remarkable cultural diversity, with seven ethnic groups still maintaining their traditional lifestyles.

Since its establishment as a national park by Ministry of Forestry Decree in 1997 and its more recent inscription as a World Heritage Property in 1999, the property has faced a number of threats.

The two most serious threats the State Party was requested by the World Heritage Committee to address, on a number of occasions, are (1) the construction of a road linking Wamena to Kenyem and (2) the die-back of *Nothofagus* forest. Through its session in Suzhou, China (2004), the World Heritage Committee raised for the first time the issue of road construction and invited the State Party to commission an independent environmental audit of the Habema Road (45 km were already built before the inscription of the property on the World Heritage List), particularly the evidence linking impacts of the road to dieback disease in the *Nothofagus* temperate forests.

The decision of the World Heritage Committee in 2006 in Vilnius, Lithuania (30 COM 7B.14) urges the State Party to provide a substantive response to the World Heritage Committee's request (28 COM 15B.10 paragraph 3) to commission an independent environmental audit of the proposed Habema Road.

In 2007, at its 31st session in Christchurch, New Zealand, the World Heritage Committee reiterated its request (31 COM 7B.18) to commission an independent environmental audit of the proposed Lake Habema Road, as already requested at its 28th session (Suzhou, 2004). The Committee also requested the State Party to invite a joint World Heritage Centre / IUCN reactive monitoring mission to the property.

During the 32nd session in 2008 in Quebec City, the World Heritage Committee requested the State Party to fully implement the recommendations of the 2008 Reactive Monitoring

Mission (32 COM 7B.15), including to cease road construction, rehabilitate recently constructed roads and mitigate impacts; engage with local and provincial governments to resolve the threat of road development and potential impacts arising from decentralisation of government; conduct independent technical and engineering assessment and design of road construction options in alpine-montane tract to minimise environmental impact; and identify and control die-back disease threatening the *Nothofagus* forests in the Lake Habema region.

At its 34th session in 2010 (Brasilia, Brazil), the Committee noted with grave concern that the priority recommendations of the 2008 mission had not yet been implemented. It requested the State Party to convene an international workshop to explore options for the effective management of the property, and also requested the State Party to invite a joint World Heritage Centre / IUCN reactive monitoring mission to the property.

At its 35th session at UNESCO, Paris, France, the World Heritage Committee expressed its grave concern that road construction within the property had not ceased as repeatedly requested by the World Heritage Committee, that forest die-back continued to adversely affect the property, and that, in the absence of urgent and effective action, the property was likely to face a gradual irreversible loss of its Outstanding Universal Value. The World Heritage Committee reiterated its request to the State Party to cease all road construction in the Lake Habema region and rehabilitate recently constructed roads, and urged the State Party to commission a Strategic Environmental Assessment (SEA) of the integrated transport programme for Papua Province as it relates to the property, in order to identify the least environmentally damaging transport options for the alpine region of the property, including alternatives to road building (35 COM 7B.15).

During its last session in Phnom Penh, Cambodia (2013), the World Heritage Committee noted with serious concern the State Party's intention to proceed with the construction of the Lake Habema-Kenyem road without undertaking a Strategic Environmental Assessment of the integrated transport plan for Papua, and considered that the continuation of construction of the Lake Habema-Kenyem road would represent a clear potential danger to its Outstanding Universal Value (OUV) in line with paragraph 180 of the *Operational Guidelines*, and be a clear basis for the inscription of the property on the List of World Heritage in Danger. The committee also reiterated its request to the State Party to fully implement the 2008 and 2011 monitoring mission recommendations, and to prioritize on ceasing all road construction in the property and rehabilitating recently constructed roads and mitigating their impacts. The Committee further requested the State Party to invite an IUCN reactive monitoring mission to the property in order to assess its state of conservation, in particular in relation to impacts from road construction, and to assist the State Party with developing a conservation strategy that will ensure the conservation and strict protection of the property's OUV, for examination by the World Heritage Committee at its 38th session in 2014.

2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

2.1. Protected area legislation

Lorentz National Park was established by Ministerial Decree (SK 154/Kpts-II/1997) in 1997 under Law No.41 on Forestry of 1999, which was amended as notified in Law No 19 of 2004. Other relevant laws include Law No 5 of 1990 concerning Conservation of Biological Resources and Ecosystems and Law No. 32 of 2009 on Protection and Management of the Environment. It is also important to refer to the relatively recent Constitutional Court's Decision No 35 of 2012 regarding the rights of indigenous peoples (Masyarakat Hukum Adat or customary law communities), which provides a platform for dealing with customary land claims. Following up on the decision, the Ministry of Forestry issued a circular 1/Menhut-II/2013 addressed to all provincial governors, district heads, and heads of regional forestry services, informing them that the status of customary forests is to be determined by the Ministry of Forestry and that local governments are required to set up regulations to identify customary forests. Decision No 35 has until now not yet affected protected areas, including Lorentz National Park. However, the decision remains an important step to recognize the customary rights of indigenous peoples.

2.2. Institutional framework

The national government of the Republic of Indonesia is responsible for the management of Lorentz National Park and for ensuring that the provisions of the World Heritage Convention in respect of the property are met. The Head of Lorentz National Park Agency (Balai Taman Nasional Lorentz) is responsible to the Directorate General of Forest Protection and Nature Conservation (PHKA) within the Ministry of Forestry (MoF) in Central Government.

2.3. Management structure

In 2006, the Minister of Forestry, by regulation 29/2006, established the Balai Taman Nasional Lorentz (BTNL) or National Park Authority. BTNL headquarters are located in Wamena. The park is divided in three sections (Seksi), with respective section offices located in Timika, Dekai and Ilaga. The total number of personnel working for BTNL is 69.

2.4. Recognition of values under international treaties and programmes

In addition to its World Heritage Status, Lorentz National Park is designated as an ASEAN Heritage Park.

3. IDENTIFICATION AND ASSESSMENT OF ISSUES AND THREATS

Due to the deteriorating security situation in and adjacent to the Lorentz National Park, the mission could not visit the property and directly assess the extent of the threats on the ground. Though the mission travelled to the Province of Papua, it only visited the capital of Jayapura. Because of the above restrictions, the mission had to rely on data from third parties in assessing the seriousness of the threats.

The mission has identified the following threats to the property, all of which have been already identified and reported by the previous missions in 2008 and 2011:

3.1. Management effectiveness

In 2006, the Minister of Forestry established the Balai Taman Nasional Lorentz or Lorentz National Park Authority, with headquarters in Wamena, District of Jayawijaya, Papua Province.

The mission met with the Director and key staff members of the National Park Authority in Jayapura, the capital of the Province of Papua. Despite the commitment of the State Party to significantly increase its support for the Lorentz National Park during the last three years, some serious challenges and issues remain to be addressed.

Since the last reactive monitoring mission in 2011, the Ministry of Forestry has increased the budget allocation for the property from IDR 9,695,314,000 to IDR 15,047,364,000. This means an increase of 65% over a period of three years. The increase in budget has allowed the national park authority to better address threats and challenges on the ground. However, taking into account the vast area of the property (2.3 million hectares), the current budget allocation (IDR 6,403 or US\$ 0.56 per hectare) is still regarded as insufficient by the mission to deal with the complexities on the ground. As already identified by previous missions (mission report 2011), the biggest proportion of the budget (75%) is allocated for support costs, including infrastructure, office and staffing costs (see figure 1). During the coming years, the national park authority will have to allocate their resources more strategically, i.e. in line with the threats encountered on the ground. As the current budget is still insufficient to deal with the challenges and issues on the ground, the mission suggests that the State Party seeks more national and international collaboration, including with the private sector, in support for the park.

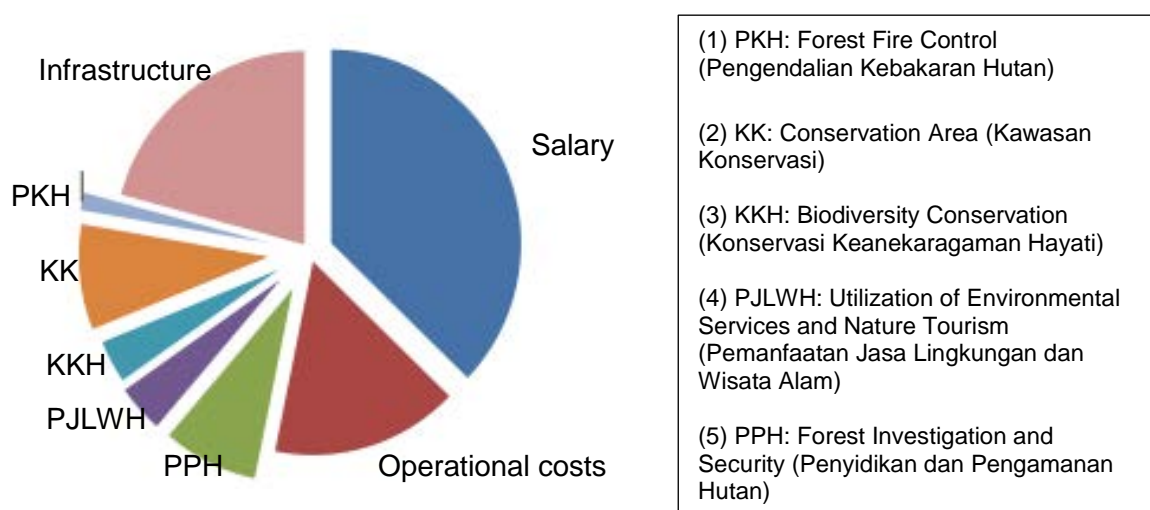


Figure 1 – BTNL budget allocation.

The Lorentz National Park Agency has 69 employees, of whom 35 are forest rangers. The number of staff, especially forest rangers, is insufficient to respond to the threats on the ground. Hypothetically, this means that one forest ranger has to patrol and guard an area equivalent of 67,143 hectares, which is an impossible task, taking into account the difficult conditions on the ground. The mission recognizes that the State Party has increased the capacity of the park staff by hiring additional staff with more diverse educational backgrounds. Nearly half of the 21 staff members with a university degree working for the national park hold a non-forestry degree, including agriculture, law and social sciences. The national park authority has made strong efforts to improve the capacities of the national park staff, especially during the last year. In 2013, twenty-four staff members have received training on topics such as conflict resolution, GIS, etc. Despite the efforts from the State Party to increase the capacities of the Lorentz National Park staff, the limited number of staff and inadequate capacities still remain a key challenge in monitoring and managing the national park. The initial lack of response of the park authority to the construction of the road and other threats indicate insufficient capacity of the institution to effectively address the complex challenges on the ground.

Due to the park's low echelon within the Indonesian governmental structure (echelon III-B), the director of the National Park faces challenges in dealing and coordinating with other government agencies in Papua. Within the hierarchical structure of the government, the echelon level provides important leverage in coordination and negotiation between government agencies. The Head of the Forestry Office of a district located within the National Park has a higher echelon (echelon II), than the Head of the Lorentz National Park, which comprises 10 districts and covers an administrative area of nearly 2.5 million hectares. This issue is seriously hampering the park's negotiation power when discussing key issues, such as road construction and other development pressures, with local government agencies.

Several key documents and agreements have been finalized during the last years, including the 20-year Management Plan for the Lorentz National Park (2010-2029), the Zoning Document and a Collaborative Management Agreement. According to the mission, the quality of some of these documents, especially the zonation and management plan, which, although they have been developed in consultation with key stakeholders, including District governments, is inadequate to address the management requirements of a World Heritage Property. The documents, which have been shared with key stakeholders, are currently being used by the national park authority in developing their annual activities. The zonation was developed using remote sensing techniques. Though the topical maps are of very high quality, the overlay method and analysis did not take fully into account the OUV and criteria under which the property was inscribed on the World Heritage List. The overlay method and the computerized analysis have resulted in a zonation that is very patchy and also extremely difficult to monitor and manage for the national park authority. There are a large number of small core zones, especially in the alpine and sub-alpine areas. The smallest core zone covers an area of not more than seven hectares; from a conservation perspective an area far too small for its function as a core zone. There are currently 12 core zones in the national park that are smaller than 20 hectares. The State Party should revise both the zonation as well as the management plan of the park, taking into consideration the OUV and criteria under which the property was inscribed on the World Heritage List.

The mission welcomes that the national park authority, with assistance from WWF, has finalized the Collaborative Management Agreement. The agreement is an important tool to improve the involvement of the indigenous communities in the park management. The Collaborative Management Agreement was drafted and endorsed by a broad range of stakeholders, including local communities, church groups, NGOs, and local government. The collaborative management structure includes three working groups providing an

inclusive platform for communities (customary owners) and other stakeholders to participate in park management. To ensure that the collaborative management structure is fully operational within the government framework, the agreement needs to be endorsed by ministerial decree.

One of the major impacts related to the limited capacities of the national park authority is the delay in response to emerging threats. The national park authority lacks an early warning system, using an inclusive monitoring mechanism, to detect as well as a respond to threats. The delays in both detecting as well as responding to threats often aggravate the threats to such extent that they have become permanent and nearly impossible to resolve.

Recommended Response to Threat:

- R1. Upgrade the echelon of the Lorentz National Park Authority within the Indonesian governmental structure from Echelon III to Echelon II, considering the national park's vast area and the number of districts located within its boundaries, in order to increase its capacity to coordinate and negotiate with other government agencies.
- R2. Issue a Ministerial Decree to endorse the Collaborative Management Agreement of the Lorentz National Park.
- R3. Increase the number of personnel of the Lorentz National Park, in particular forest rangers.
- R4. Revise the zonation and management plan, incorporating OUV and its attributes that justify the inscription of the property on the World Heritage List.
- R5. Develop and establish an early warning system, using an integrated monitoring mechanism, to detect and respond to emerging threats, such as illegal construction and illegal logging.

3.2. Road Construction: Habema-Kenyem road and Trans-Papua Highway

The construction of the Habema-Kenyem road has continued in spite of previous requests of the World Heritage Committee to immediately cease the construction of the road, pending the completion of a comprehensive Environmental Impact Assessment (EIA). The first recommendation regarding the impacts of the road was made in 2004, i.e. the 28th session of the Committee (28 COM). All following decisions reiterated the importance of the need for a comprehensive EIA before commencing any construction (32, 34, 35, and 37 COM). The committee also requested to rehabilitate and restore all environmental damage caused by the construction of the road.

After the visit of the previous reactive monitoring mission in 2011, the Governor of Papua wrote a letter to the Minister of Forestry to request support for the development of the road through the national park (Letter from Governor No. 620/3354/SET). In early 2012, the Director General of the Directorate General of Forest Protection and Nature Conservation (PHKA) issued a decree (SK.8/IV-KKBHL/2012), requesting an independent team to assess the plan for the construction of the road. As a follow-up of the report of the independent team that endorsed the construction of the road, the Ministry of Forestry sent a letter on June 11, 2012, to the Governor of Papua, providing formal approval for the road construction using a collaborative mechanism. As a follow-up on the approval, the Governor of Papua issued a decree in 2012 (SK No193, 2012) to establish an integrated team to monitor the construction of the road.

The mission was informed that the construction of the road has currently been halted, pending the completion of the Environmental Impact Assessment (EIA). According to information provided to the mission by the Ministry of Public Works, the road is currently 90 km longer than when the last reactive monitoring mission visited the property in 2011. The remaining length of the unfinished road is 22 km and could be completed in the near future. As the road is still unpaved, the restoration of damaged areas caused by the road is still feasible.

The State Party informed the mission that the road construction had continued in order to address the urgent economic needs of Wamena, the main city in the central Papuan mountains. The city does not have any road or river connection to the coast and depends fully on air transportation to fly in basic goods from outside, such as fuel. The prices of fuel and other basic products in Wamena are therefore 400% higher than in most other cities in Indonesia. The isolation of the city has seriously impeded economic development, and connecting Wamena to Agats located along the coast will, according to the State Party, provide a solution to Wamena's current economic isolation.

A special unit for the Acceleration of Development in Papua and West Papua (UP4B) was established by the President of Indonesia in 2011 (PerPres No 60, 2011). The agency's role is to address the needs of Papuan people through coordinating, facilitating and monitoring development in Papua and West Papua. The agency has played a key role in facilitating the construction of the road. The road is part of a wider planned road network connecting existing cities and key areas in Papua and West Papua. The policy for the planned road network has been issued by Presidential Regulation (PerPres No 40, 2013) to deal with the request of local leaders to provide more accessibility to isolated areas in Papua. While the road was initially initiated with funds from the local government, the construction is now under the authority from the central government, i.e. the Ministry of Public Works.

The process of the EIA, which was initiated in 2013 after 37 COM 7B.13, has been delayed several times by the Provincial Environmental Management Body (BPLHD)¹ due to technical shortcomings in the Terms of Reference (TOR), drafted by the Ministry of Public Works (KemPU). The mission met with the head of BPLHD, who provided the assurance that the agency is committed to the highest standards of environmental monitoring. From the 20 proposed public construction projects in the province of Papua during 2013, only two received a formal endorsement from BPLHD. BPLHD has deferred all other projects until they improve and redesign their EIA. The mission welcomes the seriousness in which BPLHD is addressing this issue. The head of BPLHD has ensured the mission that the agency would apply the highest standards in managing the EIA for the road construction in the property.

In 2013, the State Party also established a MOU between the Ministry of Forestry, the Ministry of Public Works and Provincial Government on the management and monitoring of the construction of the road. The MOU is currently being revised to provide special attention to the OUV of the property and the criteria under which Lorentz National Park was inscribed on the World Heritage List.

The mission also obtained a letter from the Head of the Office of National Road Construction (Kepala Balai Besar Pelaksanaan Jalan Nasional X) in Papua addressed to the Deputy Coordinating Minister of People's Welfare, dated March 18, 2014, stating that KemPU will conduct measures to mitigate any negative environmental impacts and maintain the integrity of the World Heritage property by: (1) rehabilitating all environmental impacts from the

¹ BPLHD is the provincial agency, which hosts the EIA commission that manages and approves EIA.

construction of the Habema-Kenyem road as well as adhering strictly to the recommendations and guidelines of the EIA in the continuation of the remaining road construction; (2) conducting an EIA that will follow strictly IUCN's World Heritage Advice Note on Environmental Assessment and incorporate the OUV and criteria under which Lorentz National Park was inscribed on the World Heritage List.

Depending on the results of the EIA, the State Party, through KemPU, has stated its commitment to implement both construction and managerial interventions, such as special drainage systems, unpaved stretches of roads, road closure during night-time, and imposing strict speed limits. KemPU has also stated its commitment to allocate additional costs to support such interventions.

If the State Party adheres strictly to the recommendations of the EIA and mitigates all negative impacts of the road, the property could avoid an inscription on the List of World Heritage In Danger. According to the mission, the distance between the most western location of the road and the western boundary of the national park is long enough to maintain the integrity of the property. This distance measures 140 km in the alpine region and 110 km in the sub-alpine region. It is of critical importance that these areas are being kept void of any future infrastructure or other development pressures.

The State Party informed the mission that there was currently no plan to construct the proposed Trans-Papua highway. The current plan, under Presidential Regulation (PerPres No 40, 2013) regarding construction of a road network to accelerate development in Papua and West Papua, is to provide connectivity between strategic cities by expanding and connecting existing roads. The mission identified two roads inside the property that were built prior to the inscription of the property on the World Heritage list. The first one is the Wamena-Habema road, which was later extended in the Habema-Kenyem road. The second road is located in the northwestern area of the property and referred to as Road 13 under PerPres No 40, 2013. The existence of the northern road, which connects Oesoeloesiga (Intan Jaya District) - Ilaga (Puncak District) - Mulia (Puncak Jaya District) - Poedeme (Lani Jaya District) had not yet been identified by the previous missions. Satellite imagery indicates indeed the existence of a road in the area, though some parts of the road might be overgrown by secondary forest. Any further construction work on this already existing road (e.g. widening, paving) would require a comprehensive EIA, which needs to be shared with the World Heritage Centre (WHC) before the commencement of the work.

Recommended Response to Threat:

- R6. Finalize the Environmental Impact Assessment (EIA) for the Habema-Kenyem road as soon as possible, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and incorporate the OUV and criteria under which Lorentz National Park was inscribed on the World Heritage List, and submit the document to the World Heritage Centre by 1 February 2015 for review by IUCN, in accordance with paragraph 172 of the *Operational guidelines*.
- R7. Assess the environmental damage of current road construction and develop an action plan, including a realistic time-line, for rehabilitating all damaged areas.
- R8. Adopt and implement all guidelines and recommendations of the Environmental Impact Assessment and the action plan to rehabilitate all damaged areas to ensure that the OUV and integrity of the property are maintained.
- R9. Assign an independent scientific authority to monitor the impacts of the road and the results of the rehabilitation process for a period of five years (2015-2020).

3.3. *Nothofagus dieback*

The issue of dieback was already raised by the 2004, 2008 and 2011 monitoring missions. The *Nothofagus* forest alongside the road between Wamena and Habema is suffering from an insidious dieback disease. Over the years, the disease seems to have spread and is more extensive than previously.

The State Party, through PHKA, has commissioned an initial study to assess the impact of the dieback and identify the drivers behind the dieback. The initial study, conducted by Dr. Eko Budi Widayanto, was able to isolate three potential pathogens causing the die-back, including *Fusarium* sp., *Thielaviopsis* sp. 1, and *Thielaviopsis* sp. 2. According to the national park authority the total area of forest impacted by dieback is 170.5 hectares. The smallest affected area is 1.83 hectares and the largest affected area is 85.6 hectares. Though Widayanto's study is unable to identify a correlation between dieback and the road, nearly all of the dieback occurs in areas located adjacent to the road.

Though the mission welcomes the initial study of Widayanto, there is an urgent need to follow up on this study with more comprehensive research, including an assessment regarding the health of all *Nothofagus* forest in the property, and develop an action plan to address the *Nothofagus* dieback. As national scientific capacities and expertise on the topic is limited, the mission suggests that the State Party seeks additional international collaboration in further addressing the dieback.

Recommended Response to Threat:

- R10. Conduct further in-depth studies regarding *Nothofagus* dieback, including an assessment of the health of all *Nothofagus* forests in the property, and develop an action plan to address the dieback.
- R11. Seek international collaboration in addressing the *Nothofagus* dieback, to complement the available national scientific expertise on the topic as required.

3.4. *Status of other issues*

3.4.1. Government decentralization

Due to Papua's special autonomy (law No.21/2001), the province has received substantial self-governing and decision-making powers. The special autonomy was instated to address the demand for self-determination and stimulate the economic development of the province. Papua has currently still the highest poverty rates in Indonesia. As elsewhere in Indonesia, the decentralization process and the efforts to reduce poverty by providing more government services, have led to the establishment of more districts during the last years. At the time of the inscription of the property on the World Heritage List in 1999, the National Park included six districts. This number has increased over the years, especially with the division of the district Jayawijaya in the central mountains. There are currently ten districts, the administrative boundaries of which overlap with the property. Nduga, one of the more recently established districts, is located for 80% inside the national park. Development pressures from these newly established districts are expected to increase in the future. It is of key importance that all districts in the property design their development planning and spatial planning in line with the status of the park as a World Heritage property. As both the provincial and district governments in Papua struggle with insufficient capacities to conduct environmentally friendly development planning, special attention and support should be given to develop Strategic Environmental Assessments (SEA) at district level. The Indonesia Forest and Climate Support (IFACS), a USAID funded project, is currently assisting the

Mimika² district government in developing their SEA. Lessons learned from this project could be extrapolated to the other districts in the park. There is a window of opportunity to develop a SEA for each new district and integrate the recommendations in their Mid Term Development Plan (RPJM) and Spatial Planning Document (RTRWK), before these documents are being developed.

3.4.2. Illegal logging

The occurrence of small-scale illegal logging has previously been reported (monitoring missions 2004, 2008 and 2011) along the Lake Habema road in the northeast of the property. The mission was unable to visit the national park due to the deteriorating security situation on the ground, and could therefore not assess the current situation. However, secondary information received from both the national park authority and the NGO representative did not indicate that there were serious threats from illegal logging in the park.

3.4.3. Illegal fishing

Although very little information is available on this issue, illegal fishing, as stated in the previous mission report of 2011, does not pose a serious threat. However, the mission would encourage the national park authority to extend its monitoring and patrolling to the marine section of the park. This would require the procurement by the national park agency of a number of speedboats to access and monitor the area.

3.4.4. Poaching

Poaching might be one of the bigger threats out of all the other issues listed above, since it is very difficult to monitor and detect. The 2011 mission noted that 11,000 pig-nosed tortoises were detected in a single shipment at the airport in Jayapura, Papua. A limited web search shows that many Indonesian websites offer a wide variety of protected and endangered wildlife species from Papua for sale. Media reports regarding wildlife trade also indicate that a lot of wildlife species from Papua are being sold on markets in Java and Sumatra. Though it is impossible to identify whether wildlife species sold on markets or over the internet originated from the property, it is critical that the national park authority invests more resources in anti-poaching activities and increases its coordination with the Nature Conservation Agency (BKSDA) at the provincial level. Activities should include regular monitoring of markets, airports and harbours.

Recommended Response to the above-mentioned issues:

- R12. Support districts which have administrative boundaries overlapping with the property to conduct Strategic Environmental Assessments, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment, and integrate the ensuing recommendations into their respective Mid Term Development Plans (RPJM) and Spatial Planning Documents (RTRWK).
- R.13 Conduct a study to assess the magnitude of poaching in Lorentz National Park, develop an anti-poaching strategy, and provide the human, financial, and material resources required for its implementation.

² Mimika is the district with the largest administrative area located in the park (8,313 km²).

4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

Lorentz National Park was inscribed on the World Heritage List under natural criteria (viii), (ix) and (x). The mission concludes that despite the increasing threats, the **Outstanding Universal Value of the property is currently still being maintained.**

Despite the impact from the construction of the road on certain alpine and sub-alpine geomorphic features (see mission report 2008 and 2011) in the northeastern part of the national park, the property continues - without doubt - to represent on-going geological processes in the development of landforms and significant geomorphic and physiographic features [criterion (viii)].

Located at the meeting point of two colliding continental plates, the area has a complex geology with ongoing mountain formation as well as major sculpting by glaciation and shoreline accretion. There is also clear evidence of post-glacial shorelines. Graphically illustrating the geomorphological effect of the last glacial and post-glacial periods, the mountains show all the classical glacial landforms including lakes and moraines. Furthermore, there are five small remnant glaciers. While all five glaciers are retreating rapidly under present climatic conditions, no other tropical glacier fields in the world exhibit glacial evolution as well as those in Lorentz National Park. There is also no better example in the world of the combined effect of collision of tectonic plates and the secondary major sculpting by glacial and post-glacial events.

Although certain geomorphological formations, such as moraines, have been damaged in areas where the road has been constructed, the property still features sufficient similar geomorphological formations to maintain its OUV.

Lorentz National Park is the only protected area in the world that incorporates a continuous ecological transect from snow capped mountain peaks to a tropical marine environment, including extensive lowland wetlands. The geophysical processes and high rainfall found along this transect are consistent with the development of significant on-going ecological processes as is the division of the property into two distinct zones: the swampy lowlands and the high mountain area of the central cordillera. The climatic gradient, the greatest throughout the island of New Guinea and the entire Australian tectonic region, extends from nival zones and glaciers to lowland equatorial zones with an associated extreme range of faunal and floral species and communities.

Lorentz National Park provides evidence of highly developed endemism in both plants and animals, especially for the higher altitudes of the mountains, as expected in a region combining on-going uplift and climatic warming. The size of the *Nothofagus* forest impacted by dieback represents only a small part (170.5 hectares) of the total area of *Nothofagus* forests in the property. The dieback does at this particular moment not yet significantly affect the OUV of the property.

If the State Party ensures mitigation of the environmental impacts of the road through engineering and managerial interventions, the property would be expected to continue to represent significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals and continue to support high levels of endemism [criterion (ix)].

The mountain building processes that have occurred over time have provided temperate refuges in the tropics for ancient Gondwanan plant species during the climatic warming that has occurred since the last ice age. The property is more than just the habitat for many rare, endemic and restricted range species. Its large size and exceptional natural integrity make it especially important for their on-going evolution as well as their long-term conservation. The

refugial effect or local genetic evolution, or both, are manifest as locally endemic species or restricted range species. Much of the rich biota of the property is new or of special interest to science. A number of mammal species, including recent discoveries like the Dingiso tree kangaroo (*Dendrolagus mbaiso*) discovered in 1994, have evolved to utilize the specialized habitats within the property. Lorentz National Park will become increasingly important for long-term conservation of the species already recorded and the many that remain to be discovered.

As far as could be determined (in the absence of a site visit and secondary data such as comprehensive biodiversity surveys), the mission is of the opinion that despite the construction of the road the property continues to represent important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation [criterion (x)].

The mission is of the opinion that the *Integrity of the property* is currently being maintained. Although some fragile alpine ecosystems and geomorphological structures in the northeastern part of the property have been damaged by road construction, the majority of these landscape types in the property remains intact. The distance between the road and the western boundary of the property measures 140 km in the alpine region and 110 km in the sub-alpine region, an area vast enough to maintain the integrity of the property. The dieback of *Nothofagus* forest is currently only affecting a relatively small area of the total *Nothofagus* forest found in the property. Although there is a strong need for addressing this issue, the dieback itself does not yet impact the OUV of the property, as the majority of the *Nothofagus* forest ecosystems found in the property remains intact.

The mission is of the opinion that if the State Party cannot guarantee strict and efficient monitoring and control of future development pressures on the property through strengthening its management, the property is likely to continue to slowly lose its integrity, to the point where it would meet the criteria for being inscribed on the List of World Heritage in Danger.

The current mission would like to reiterate the concern of both previous missions (2008, 2011) that the management capacity, whilst slowly improving, is still inadequate to effectively deal with the challenges of such a large and complex area. All threats identified by this mission as well as previous missions (2008, 2011) are a result of the low management capacity of the property. If during the coming years the management of the property is not drastically improved, the mission is of the view that the OUV and integrity of the property will become further threatened so as to constitute a basis for the inscription on the List of World Heritage in Danger.

5. CONCLUSION AND RECOMMENDATIONS

Since its establishment as a national park by Ministry of Forestry Decree in 1997 and its more recent inscription as a World Heritage Property in 1999, the property has faced a number of threats.

Among the most critical issues are the lack of an effective management system and lack of capacity of the Park authorities. This has resulted in an increase in the threats to the property's integrity. Despite the commitment over the years of the State Party to significantly increase its support for the Lorentz National Park Authorities, serious capacity and management challenges and issues still remain.

One of the major impacts related to the limited capacity of the national park authority is the delayed response to emerging threats. Responsible for a very remote area of 2.35 million ha, with only 35 forest rangers working in extremely difficult circumstances (lack of security and harsh terrain), the national park authority lacks an early warning system to detect and respond to threats. The delays in both detecting as well as responding to threats have resulted in a situation whereby many threats are now permanent or extremely difficult to resolve. Examples of such threats that received insufficient and belated attention include the construction of the Habema-Kenyem road and the dieback of *Nothofagus* forests occurring alongside the road. Both threats were among the main concerns raised by the 2008 and 2011 missions.

The construction of the Habema-Kenyem road has continued in spite of previous requests of the World Heritage Committee to immediately cease the construction of the road, pending the completion of a comprehensive Environmental Impact Assessment (EIA). The remaining length of the unfinished road is 22 km and could be completed in the near future. The State Party has confirmed that it will conduct measures to mitigate any negative environmental impacts and maintain the integrity of the World Heritage property by (1) rehabilitating all environmental impacts from the construction of the Habema-Kenyem road as well as adhering strictly to the recommendations and guidelines of the EIA in the continuation of the remaining road construction; (2) conducting an EIA that will follow strictly IUCN's World Heritage Advice Note on Environmental Assessment and incorporate the OUV and criteria under which Lorentz National Park was inscribed on the World Heritage List.

The mission is of the opinion that the above actions of the State Party should be able to mitigate to a certain extent some of the negative impacts caused by the road. Although some fragile alpine ecosystems and geomorphological structures in the northeastern part of the property have been damaged by road construction, the majority of these landscape types in the property remains intact. The distance between the road and the western boundary of the property measures 140 km in the alpine region and 110 km in the sub-alpine region, an area vast enough to maintain the integrity of the property.

The dieback of *Nothofagus* forest is currently only affecting a relatively small area of the total *Nothofagus* forest found in the property. The dieback itself does not yet impact the OUV of the property, as the majority of the *Nothofagus* forest ecosystems found in the property remains intact. However, there is a strong need to address this issue, as unresolved, it is an indication of a lack of attention or ability to address the issue before it affects a larger area and may possibly in the future have implications for the OUV.

While the mission welcomes the fact that several key documents and agreements supporting the management of the park have been finalized over the last years (including the 20-year Management Plan for the Lorentz National Park (2010-2029), the Zoning Document and a Collaborative Management Agreement), it is of the opinion that the quality

of some of these documents, especially the zonation and management plan, is inadequate to address the management requirements of a World Heritage Property.

The mission reiterates that strengthening the capacities of the management authorities of the property is key to improving the situation on the ground. If during the coming years the management of the property is not drastically improved, the mission is of the view that the OUV and integrity of the property will become further threatened so as to constitute a basis for the inscription on the List of World Heritage in Danger.

On the basis of the evidence presented to and analyzed by the mission, the mission concludes that the OUV and the criteria under which the property was inscribed on the World Heritage List (viii, ix and x) are currently still being maintained.

The mission makes the following recommendations, based on the issues identified in the preceding sections:

The mission recommends that the State Party:

- R1. Upgrade the echelon of the Lorentz National Park Authority within the Indonesian governmental structure from Echelon III to Echelon II, considering the national park's vast area and the number of districts located within its boundaries, in order to increase its capacity to coordinate and negotiate with other government agencies.
- R2. Issue a Ministerial Decree to endorse the Collaborative Management Agreement of the Lorentz National Park.
- R3. Increase the number of personnel of the Lorentz National Park, in particular forest rangers.
- R4. Revise the zonation and management plan, incorporating OUV and its attributes that justify the inscription of the property on the World Heritage List.
- R5. Develop and establish an early warning system, using an integrated monitoring mechanism, to detect and respond to emerging threats, such as illegal construction and illegal logging.
- R6. Finalize the Environmental Impact Assessment (EIA) for the Habema-Kenyem road as soon as possible, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and incorporate the OUV and criteria under which Lorentz National Park was inscribed on the World Heritage List, and submit the document to the World Heritage Centre by 1 February 2015 for review by IUCN, in accordance with paragraph 172 of the *Operational Guidelines*.
- R7. Assess the environmental damage of current road construction and develop an action plan, including a realistic time-line, for rehabilitating all damaged areas.
- R8. Adopt and implement all guidelines and recommendations of the Environmental Impact Assessment and the action plan to rehabilitate all damaged areas to ensure that the OUV and integrity of the property are maintained.
- R9. Assign an independent scientific authority to monitor the impacts of the road and the results of the rehabilitation process for a period of five years (2015-2020).

- R10. Conduct further in-depth studies regarding *Nothofagus* dieback, including an assessment of the health of all *Nothofagus* forests in the property, and develop an action plan to address the dieback.
- R11. Seek international collaboration in addressing the *Nothofagus* dieback, to complement the available national scientific expertise on the topic as required.
- R12. Support districts which have administrative boundaries overlapping with the property to conduct Strategic Environmental Assessments, in conformity with IUCN's World Heritage Advice Note on Environmental Assessment, and integrate the ensuing recommendations into their respective Mid Term Development Plans (RPJM) and Spatial Planning Documents (RTRWK).
- R.13 Conduct a study to assess the magnitude of poaching in Lorentz National Park, develop an anti-poaching strategy, and provide the human, financial, and material resources required for its implementation.

The mission recommends that all the above items should be reported on regularly to the World Heritage Committee, and recommends that the State Party submits progress reports on the implementation of the above recommendations according to the following timeline:

- 1 February 2015: R2, R6, R7;
- 1 February 2016: R1, R3, R4, R5, R10, R11, R13;
- 1 February 2017: R8, R12;
- Regular progress reports between 2015 and 2020: R9.

6. ANNEXES

ANNEX I: TERMS OF REFERENCE

IUCN Reactive Monitoring Mission Lorentz National Park – Indonesia 11 – 18 March 2014

At its 37th session, the World Heritage Committee requested the State Party of Indonesia to invite a reactive monitoring mission to Lorentz National Park World Heritage Site (Decision **37 COM 7B.13**), to be conducted by IUCN. The objective of the monitoring mission is to assess the state of conservation of the property, in particular in relation to impacts from road construction, and to assist the State Party with developing a conservation strategy that will ensure the conservation and strict protection of the property's Outstanding Universal Value (OUV). Given both logistical issues, and that the issues do not depend on on-site analysis in LNP, IUCN proposes that the mission should be implemented through high level meetings with the relevant authorities, rather than through a field visit. The mission will be conducted by Koen Meyers, representing IUCN.

In particular, the mission should address the following key issues:

1. Assess impacts from the construction of the Habema – Kenyem road and potential impacts from the Trans-Papua Highway project, particularly the proposed Jayapura – Wamena – Mulia road, including through analysis of available high resolution satellite imagery, and provide guidance to the State Party to take measures to ensure the protection of the property's OUV;
2. Assess progress in the implementation of the 2008 and 2011 monitoring missions recommendations, in particular:
 - i. Cease all road construction in the property and rehabilitate recently constructed roads and mitigate their impacts;
 - ii. Further investigate and address forest die-back, and develop management guidelines for all relevant stakeholders undertaking activities within the property to contain the spread of the die-back disease;
 - iii. Review the budgeting for the property in order to ensure that resources are directed to address the major threats to its OUV;
 - iv. Build the capacity of park staff to manage complex ecological, technical and sociological issues;
3. Assess the (risk of) fragmentation of the property's habitats and altitudinal continuum from snow-capped mountains to a tropical marine environment, which contribute directly to the property's OUV, and provide advice to the State Party for the development of a conservation strategy that will ensure the conservation and strict protection of the property's OUV;
4. In line with paragraph 173 of the *Operational Guidelines*, assess any other relevant conservation issues that may negatively impact on the Outstanding Universal Value of the property, including the conditions of integrity and protection and management.

A field visit to LNP will not be required during this mission. In order to enable preparation for the mission, it would be appreciated if the following items could be provided to the World Heritage Centre (copied to IUCN) as soon as possible and preferably no later than 1 month prior to the mission:

- a) The most recent version of the management plan and zoning plan of the property ;

- b) Detailed preliminary results of the ongoing investigation into the causes of the die-back disease that is affecting *Nothofagus* forests in the property;
- c) (Draft) Environmental Impact Assessments of the Trans-Papua Highway project and the Habema – Kenyem road project, including alternative options considered, and clear high resolution maps overlaying road trajectory with other key layers, including vegetation type, soil type, and elevation/slope;

This mission should hold a series of high level meetings with the relevant authorities in Jakarta and Jayapura, including senior representatives of the Department of Forest Protection and Nature Conservation (PHKA) of the Ministry of Forestry, the Ministry of Public Works, the State Ministry of National Development Planning, the Lorentz National Park management authorities, and the (Deputy) Governor of the Province of Papua and the Regents concerned with the Habema – Kenyem road, including the Regent of Jayawijaya. In addition, the mission should hold consultation with a range of relevant stakeholders, including i) researchers; ii) NGOs; and iii) representatives of local communities.

Based on the results of the above-mentioned assessments and discussions with the State Party representatives and stakeholders, the mission will develop recommendations to the Government of Indonesia and the World Heritage Committee with the objective of providing guidance to the State Party for the development of a conservation strategy that will ensure the conservation and strict protection of the property's Outstanding Universal Value. It should be noted that recommendations will be provided within the mission report (see below), and not during the mission implementation.

The mission will prepare a concise report on the findings and recommendations within 6 weeks following the site visit, following World Heritage Centre reactive monitoring mission report format.

ANNEX II: Decision 37COM 7B.13

13. Lorentz National Park (Indonesia) (N 955)

Decision: 37 COM 7B.13

The World Heritage Committee,

1. Having examined Document WHC-13/37.COM/7B.Add,
2. Recalling Decision **35 COM 7B.15**, adopted at its 35th session (UNESCO, 2011),
3. Takes note notes that the State Party did not submit its report by **1 February 2013**, and the information provided by the State Party in its report of 22 May 2013;
4. Notes with serious concern considers the State Party's intent to proceed with the construction of the Lake Habema – Kenyem road without undertaking a Strategic Environmental Assessment of the integrated transport plan for Papua, and that the continuation of construction of the Lake Habema – Kenyam road and the proposed Jayapura – Wamena – Mulia road, if built through the property would represent a clear potential danger to its Outstanding Universal Value (OUV) in line with paragraph 180 of the *Operational Guidelines*, and be a clear basis for the inscription of the property on the List of World Heritage in Danger;
5. Urges the State Party to rigorously ensure the protection and conservation of the property's OUV, and prevent the fragmentation of the largely intact wilderness that makes up the property;
6. Requests the State Party to provide detailed information about the revival of the Trans-Papua Highway plan, and the measures taken to ensure the protection of the property's OUV;
7. Reiterates its request to the State Party to fully implement the 2008 and 2011 monitoring mission recommendations, and to prioritize the following:
 - a) Cease all road construction in the property and rehabilitate recently constructed roads and mitigate their impacts,
 - b) Further investigate and address forest die-back, and develop management guidelines for all relevant stakeholders undertaking activities within the property to contain the spread of the die-back disease,
 - c) Review the budgeting for the property in order to ensure that resources are directed to address the major threats to its OUV,
 - d) Build the capacity of park staff to manage complex ecological, technical and sociological issues;
8. Also requests the State Party to provide an electronic copy and three printed copies of the Management Plan and zoning plan for review by the World Heritage Centre and IUCN;
9. Further requests the State Party to invite an IUCN reactive monitoring mission to the property in order to assess its state of conservation, in particular in relation to

impacts from road construction, to assist the State Party with developing a conservation strategy that will ensure the conservation and strict protection of the property's OUV, for examination by the World Heritage Committee at its 38th session in 2014;

10. Calls upon the State Party in resolving the severe constraints to the effective operation of the Park management including funding, limited monitoring and surveillance equipment, and limited staff capacity and technical expertise; the international community to support
11. Requests furthermore the State Party to submit to the World Heritage Centre, by 1 February 2015 a report on the state of conservation of the property, including progress achieved in implementing the recommendations of the 2008 and 2011 monitoring missions, as well as the results of the Strategic Environmental Assessment (SEA) of the integrated transport programme for Papua Province, for examination by the World Heritage Committee at its 39th session in 2015.

ANNEX III: PROGRAM AND AGENDA**Reactive Monitoring Mission to Lorentz National Park, Indonesia
11-18 March 2014**

Date	Activity	Remarks
Tuesday, 11 March 2014	Briefing with the Director of UNESCO Jakarta	Venue: UNESCO Office
	Entry briefing at the Coordinating Ministry of People's Welfare as the World Heritage Commission Council (KEMENKOKESRA)	Venue: Kemenkokesra
	Meeting with Director KKBHL, Ditjen PHKA	Venue: PHKA, Ministry of Forestry
	Departure for Jayapura	GA 650 ETD 2100
Wednesday, 12 March 2014	Arrival in Jayapura	ETA 0705
	Meeting with BKSDA Papua and Lorentz NP	Venue: Office of BKSDA
	Meeting with WWF	Venue: Office of WWF
Thursday, 13 March 2014	Meeting with ex-Head of Forestry, Kabupaten Jayawijaya	Venue: Hotel Horison
	Meeting with Assistant for Development Issues for the Governor Papua	Venue: Office of Governor Papua
	Meeting with the Secretary of Badan Pengelola Lingkungan Hidup Daerah (BPLHD)	Venue: Hotel Horison
	Meeting with the National Road Construction Agency X (for Papua and West Papua Provinces)	Venue: Hotel Horison
Friday, 14 March 2014	Departure for Jakarta	GA 653 0925 - 1530
Monday, 17 March 2014	Meeting with Directorate of Technical Oversight, Ditjen Bina Marga, Ministry of Public Works	Venue: Office of PU
Tuesday, 18 March 2014	Exit briefing at the Indonesian National Commission for UNESCO	Venue: Office of the Indonesian NatCom
	Meeting with PT Freeport Indonesia	Venue: Freeport Office in Jakarta

ANNEX IV: List of People Met

Coordinating Ministry of People's Welfare

Mr Dohardo Pakpahan
Plt Asisten Deputy Urusan Kebudayaan, Menkokesra RI
Deputy Assistant for Cultural Affairs a.i. , Menkokesra RI
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Indonesian National Commission for UNESCO

Mr Arief Rachman, Executive Chair
Ms Hasnah Gasim
Mr Rante Sapan
Ms R. Iriyanti

Ministry of Foreign Affairs

Mr Gulfan Afero
Kasubbid Sosbud dan NGO Asing
Head of Sub-directorate of Socio-cultural Affairs and International NGOs.
Directorate Social-Cultural Affairs & OINB, Directorate General of Multilateral Affairs
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Ministry of Public Works (Kementerian Pekerjaan Umum/KEMPU)

Mr Subagyo
Direktur Bina Teknik, Ditjen Bina Marga,
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Kementerian Pekerjaan Umum
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Ir. Srie Handono Mashudi, M.Eng.Sc.
Kepala Subdit Wilayah III D
Head of Sub-Directorate Area IIID
Direktorat Bina Pelaksanaan Wilayah III, Ditjen Bina Marga
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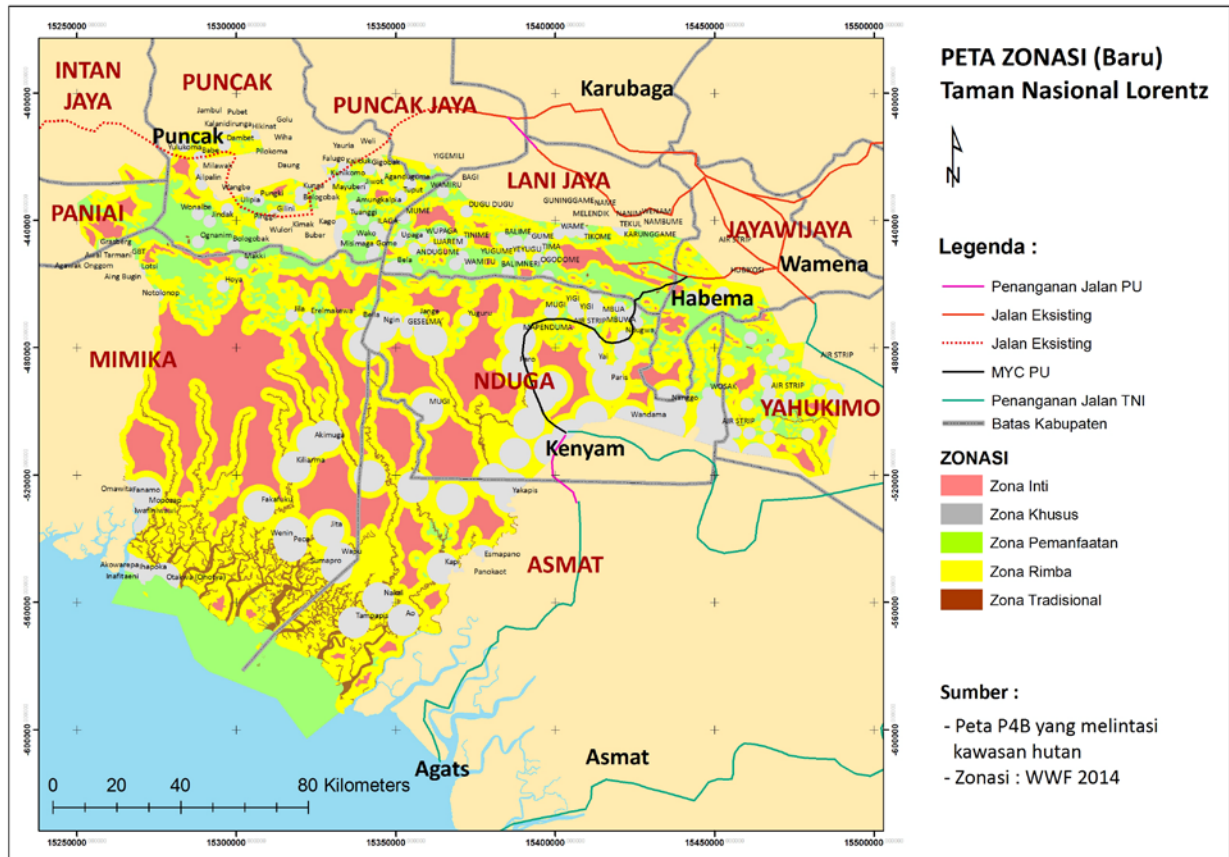
UNESCO Office, Jakarta
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Mr Hubert Gijzen
Director

Mr Shahbaz Khan
Deputy Director & Senior Programme Specialist for Science

ANNEX V: MAPS

Map 1: Zonation of National Park with administrative boundaries of districts and existing and proposed roads.



ANNEX VI: PHOTOS

Entry briefing at the office of Coordinating Ministry for People's Welfare, Jakarta, 11 March 2014



Meeting with BKSDA and Lorentz NP Authority in Abepura, 12 March 2014



Meeting with WWF in Abepura, 12 March 2014



Meeting with Mr John Wai, ex-Head of Forestry Agency of the Jayawijaya district in Jayapura, 13 March 2014



Meeting with the Assistant to the Governor of Papua for Development Issues, Mr Elia Loupatty, Jayapura, 13 March 2014



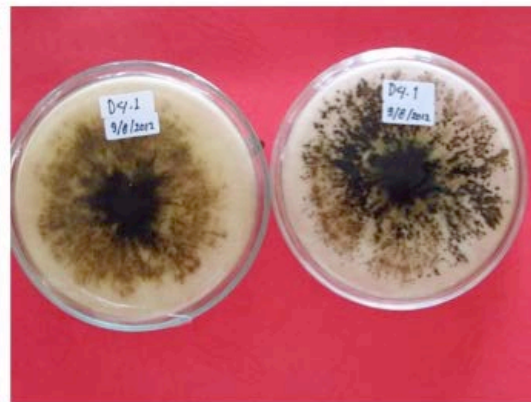
Exit briefing at the Office of Indonesian National Commission, 18 March 2014



Potential pathogens causing dieback of Nothofagus forest



Fusarium Sp.



Thielaviopsis sp. 1