#### **Environmental and Social Review Summary**

# Weda Bay Nickel Mine Project – Exploration and Feasibility Phase

This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed in advance of the MIGA Board consideration of the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA's activities. This document should not be construed as presuming the outcome of the decision by the MIGA Board of Directors. Board dates are estimates only.

Any documentation which is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country: Indonesia Sector: Mining

Project Enterprise: PT WEDA BAY NICKEL (WBN)

Environmental Category: A

Date ESRS Disclosed: April 28, 2010

Revised in July 2, 2010

Status: Due Diligence

## A. Project Description

PT Weda Bay Nickel (WBN) is proposing to develop a nickel and cobalt mine and a hydrometallurgical processing plant in Central Halmahera and East Halmahera Regencies, North Maluku Province, eastern Indonesia. MIGA is considering supporting the exploration and feasibility phase, but this ESRS also includes a review of some of the potential impacts during the construction and operation phases. Should MIGA be requested to provide guarantees for the construction and operation phase of this project additional due diligence will be conducted.

Exploration activities have already started and include mineral exploration surveys, the upgrading and maintenance of existing access roads, a small-scale mine test pit (already built) and an aircraft landing strip (already built). The process of land acquisition for the proposed future processing plant and related support infrastructure (including a port), permanent accommodation and camp utilities, and a temporary construction workers' camp is underway. The existing Tanjung (Tg) Ulie Camp, first established in 1997, now includes workers' accommodation and mess facilities, offices, maintenance workshops, warehouses, a small laboratory and supporting infrastructure, a helipad and three small wooden jetties. Geotechnical investigations and other design studies and community consultations are also under way.

The total area to be used for mining and processing for the first 30 years of operations is estimated to be approximately 2,650 ha, which includes (with some overlap across the following categories):

• Mining Areas - 1,800 ha;

- Processing Plant Area 120 ha;
- Residue Storage Facility 400 ha;
- Limestone Quarry and crushing plant 100 ha;
- Temporary Construction Accommodation 48 ha;
- Permanent Accommodation Facility 29 ha;
- Airport 36 ha;
- Mining and access roads 80 ha; and
- Other infrastructure 250 ha.

### B. Environmental and Social Categorization

The Project is classified as Category A under MIGA's Environmental and Social Review procedures. Exploration and feasibility phase activities of WBN's nickel-cobalt project will require land acquisition, test drilling and exploration in ecologically sensitive areas and are a precondition for construction and operations phases. The project's land acquisition requires no physical displacement of families, but in some cases economic displacement will result from the acquisition of agricultural land. Impacts on critical habitats, species biodiversity and from pollution are not expected to be significant during the exploration and feasibility phase. The key significant potential impacts of the project will occur during the construction and operations phases; these impacts include potential erosion, biodiversity, solid residues disposal and population influx, which can be irreversible if not addressed properly.

### C. Applicable Standards

Based on current information, the following MIGA Performance Standards are expected to be applicable:

- PS1: Social and Environmental Assessment and Management System
- PS2: Labor and Working Conditions
- PS3: Pollution Prevention and Abatement
- PS4: Community Health, Safety and Security
- PS5: Land Acquisition and Resettlement
- PS6: Biodiversity Conservation and Sustainable Natural Resource Management
- PS7: Indigenous Peoples' Policy
- PS8: Cultural Heritage

#### D. Key Documents and Scope of MIGA Review

- Eramet PT Weda Bay Nickel Exploration and Development ESIA prepared by ERM – February 2010;
- AMDAL EIA and EMP prepared for the Indonesian Ministry of Environment February 2009;
- Contract of Work Feasibility Study February 2009

As part of the social and environmental due diligence, social and environmental specialists from MIGA and the World Bank visited the project site and nearby villages between March 3 and 6, 2010.

## E. Key Issues and Mitigation

### PS1: Social and Environmental Assessment and Management Systems

In compliance with Indonesian environmental regulations, in 2007 and 2008 the sponsor has developed an AMDAL document consisting of four components:

- (i) Terms of Reference for environmental analyses (TOR);
- (ii) ANDAL (Environmental Impact Assessment, including baseline studies);
- (iii) Environmental Management Plan (RKL);
- (iv) Environmental Monitoring Plan (RPL).

The AMDAL was approved by the Head of the Provincial Environmental Impact Management Agency of North Maluku Province in June 2009 after being disclosed at the provincial level, through public technical committee and evaluation committee meetings at the national level and reviewed by an AMDAL commission consisting of civil society organizations and government representatives. The sponsor has also updated the ANDAL (Exploration and Development ESIA in February 2010) and has carried out a gap analysis with reference to the IFC/MIGA Performance Standards on Social and Environmental Sustainability and the similar Equator Principles for the exploration and feasibility phase of the project.

In 2008, the sponsor conducted an audit of the project and, after identification of gaps, the project sponsors and their consultants have defined additional studies to be undertaken as part of a Bankable Feasibility Study (BFS) which includes an Environmental Social and Health Impact Assessment (ESHIA). These further studies include analyses on:

- Terrestrial Biodiversity
- Marine Biodiversity and Sagea Lagoon Ecology
- Community Social Assessment
- Public Consultation and Disclosure Plan
- Community and Indigenous People Development Plan
- Cultural Heritage Preservation Plan
- Land Acquisition and Compensation Plan
- Greenhouse Gas Emissions Assessment
- Metals Background Study
- Residue Management Impact Assessment
- Karst Limestone Deposit Analysis
- Kobe River Watershed Study

WBN and its main engineering firm (contractor) for construction is committed also to have a population influx management plan. These ongoing studies are expected to be completed by mid 2011. The project sponsors are committed to comply with IFC/MIGA Performance Standards and the Equator Principles; the World Bank Group (WBG) Environmental, Health and Safety (EHS) Guidelines; the World Business Council for Sustainable Development Mining Guidelines; and the International Council on Metals and Minerals (ICMM) Sustainable Development Framework as applicable to the project. ISO 14001 certification will be sought.

Informal assistance to local communities has been provided by the project sponsors early in the exploration feasibility phase, and a more structured and formal Local Development Support program commenced in 2008. These initially focused on 10 villages in Central Halmahera regency and have since expanded to cover 12 villages in Central and East Halmahera regencies. These local development efforts include programs in four areas: Education; Health Care; Agribusiness; and improving village infrastructure. The 2009 budget was over 1 million USD.

An environmental and social management program – ESMP (specifically for the exploration and feasibility phase) will be finalized and submitted to MIGA, consisting of: WBN plans to submit to MIGA revised drafts of emergency response and evacuation plan draft of safety handbook, WBN company regulation, water use and draft of solid, liquid waste and draft hazardous material management plans during the first week of July. Particularly activity related with test pit i.e. Soil erosion control and surface run-off management, biodiversity management, and an information disclosure and public consultation after AMDAL approval June, 2009 will be submitted during the last week June. The land acquisition and compensation plan will be completed and submitted to MIGA for review before the land acquisition. All the components of the ESMP will be detailed and updated as necessary. WBN will be responsible for ensuring that monitoring and reporting activities committed to in the ESMP are conducted in a manner satisfactory to MIGA. The AMDAL includes an Environmental Management Plan (RKL) and an Environmental Monitoring Plan (RPL) that establishes the basis for the ESMP. All components of the ESMP will be detailed and updated as necessary. WBN will be responsible for ensuring that monitoring and reporting activities committed to in the ESHIA and ESMP are conducted in a manner satisfactory to MIGA.

### PS2: Labor and Working Conditions

WBN or its sub-contractors currently employ over 850 employees: 450 employees are directly employed by WBN of which 194 are employed from local villages directly by WBN under permanent or fixed term employment agreements in a variety of positions. WBN also provides direct employment opportunities on a daily hire basis for an average of 160 additional local residents. The existing camp accommodates 450 workers employed for exploration, feasibility and support activities. WBN has developed a human resources (HR) policy and procedures effective up to the construction phase. The project enterprise will also ensure relevant requirements of Performance Standard 2 will be applied to all non-employee (contracted) workers. During peak construction, the project

is forecast to employ an estimated 10,000 workers including those working directly for WBN and those who will be employed by the construction sub-contractors (the majority). During the subsequent operations phase, the project would provide full time employment for an estimated 3,000 workers.

The Company Regulations, required under Indonesian labor laws, effectively serves as a Human Resources policy and must be reviewed and approved by the relevant Indonesian government authority every two years. WBN currently employs three different categories of staff:

- Permanent Employees, employed under Employment Agreements of indefinite term
- Non-Permanent Employees, employed under Fixed Term Employment Contracts
- Daily Workers at the Halmahera Field Site.

The Company Regulations (HR policy) include provisions for probationary hire, medical examinations, working days and hours, certification of illness or injury and payment for sick leave, overtime payments, performance-based compensation, religious holiday allowance, leave entitlements (annual, religious, and maternity), recognition awards, health and safety considerations, occupational illness and injuries, medical treatment onsite and medical insurance, travel and duty changes, rules of conduct and disciplinary actions, suspensions, terminations, resignations, severance, social security (JAMSOSTEK program), retirement, and grievance resolution. Information provided by the ANDAL and meetings with the WBN staff indicates that, other than minor individual grievances and personality conflicts, there have been no significant problems. Employees from local villages, whether they are daily hires, fixed-term contract or permanent workers, have been the persons involved in most labor actions to date.

WBN does not have an HR policy with respect to daily labor, except for a "ring rotation system" which has been used by WBN for local daily hires since 2006 after consultation and agreement with surrounding communities and local government. The objective of this system is to distribute project benefits in the form of employment opportunities to a larger group of communities on the basis of the distance of these communities from the main areas of project activities. The "ring" is a simple graphic showing radial circles around the Tanjung Ulie exploration and development headquarters camp. The system was developed and agreed to by various community groups and the local government. It took into account the various geographic and logistical constraints of WBN at the time the agreement was signed. The current ring system only applies to the period before construction activities commence, and a comprehensive system for the labor force, including engaging of daily labor, is being developed by WBN in consultation with its Main Engineering contractor in preparation for the Construction period. WBN plans to make the labour system more transparent and to consider comments/suggestions by communities.

A workplace health and safety plan is in place consistent with PS2 requirements and relevant guidelines, and covers all workers and subcontract labor involved in the exploration and preconstruction phase. Occupational health and safety measures include:

- (i) daily toolbox meetings;
- (ii) training and certification;
- (iii) major risk assessment mapping (updated in 2009);
- (iv) corrective actions to reduce significant risks (being implemented in 2010).

The current camp is equipped with a site clinic which is operated under contract by International SOS who provide a full time doctor and two paramedics, supplemented by 7 WBN paramedics to provide fly camp services. Emergency medical evacuations are managed by SOS. The Occupational Health and Safety (OHS) performance for WBN in 2009 (excluding sub-contractors) was 1,391,390 lost time injury (LTI) free man-hours. The most recent LTI was in week 9 of 2008, and there have been 2,490,960 lost time injury free man-hours since then.

The project will employ about 10,000 workers during the peak of construction. However, in the early stages of construction, the current base camp will need to accommodate a smaller (but nonetheless significant) number of the initial construction workforce until the main construction accommodation facilities are built. Construction accommodation facilities will have a capacity of around 5000 people. In preparation for this, the project enterprise WBN is in the process of upgrading its occupational health and safety plan. Actions/steps for 2010 plan include:

- (i) zoning of industrial areas away from accommodation areas (e.g. power station, warehouses and hazardous waste storage;
- (ii) upgrading the clinic;
- (iii) establishing new OHS offices with additional staffing;
- (iv) establishing a health and safety control room operational 24x7;
- (v) relocating the jetty to better control camp access.

WBN is also currently updating the immediate emergency evacuation plan. The updated plan includes the following components/sections:

- (i) mobilization and operation of "Quick Reaction Forces" from local police jurisdictions;
- (ii) securing of camp perimeters and access;
- (iii) securing of evacuation routes and providing escorts for evacuees;
- (iv) securing WBN assets after evacuation.

Discussions regarding a draft MoU are in progress with a nearby mining company (Nusa Halmahera Minerals - NHM Gosowong) for transportation assistance (e.g. helicopter, fixed wing) in case of an emergency.

#### PS3: Pollution Prevention and Abatement

**Exploration and Feasibility Phase.** Information presented to MIGA and mission visit findings indicate that pollution impacts of WBN's nickel-cobalt project during the exploration and feasibility phase have not thus far been significant, and are not expected to be significant during the remaining exploration and feasibility phase. Monitoring carried out by WBN has not shown any significant impacts.

Few hazardous materials have been used during the exploratory drilling. Fuels and lubricants have been used in small quantities. Generators are small and, as with vehicles and aircraft, maintained in good operating condition to minimize gas, particle, and noise emissions.

Solid wastes and scrap metals are separated at source into organics (compost) and recyclables (paper, glass, plastics and scrap metals) that are generally sold. Waste oil, fuel, used batteries and electronics waste are stored as hazardous wastes and disposed using licensed facilities. Medical wastes are sent off site to be incinerated in a licensed unit. Nonhazardous wastes that cannot be recycled are disposed of in separate organic and inorganic landfill pits.

The areas around new or expanded construction roads have been re-vegetated. Soil erosion around the test pit is localized due to its small area. Installation of drainage and appropriate stockpiling techniques, were found to be effective in reducing erosion to only a few isolated areas. Slope and berm design, minimal land clearing and immediate revegetation of the overburden and open area further reduced impacts. All surface water runoff from test pit were directed into sedimentation ponds and total suspended solids (TSS) has been and continues to be monitored in rivers. Downstream villages are located far from the test pit (about 15 km) and not always within the same watershed. Information indicates that no crops have been affected.

**Construction Phase**. Facilities to be constructed to support mining activities will include: a residue storage facility (RSF), a limestone processing plant, the main nickel-cobalt ore processing plant, a dedicated port and barge loading facility, access roads, temporary accommodation for construction workers, and permanent accommodation for staff and other infrastructure.

Potential soil erosion and runoff from disturbed areas and steeper terrain in and around the mining sites would increase from land clearing. Erosion control strategies (diversion of water inflow to cleaned areas, mulching, silt fencing and constructing drainage in and around stockpiles) will be implemented. Re-vegetation will be implemented module by module. Remaining impacts to nearby villages are expected to be insignificant because affected areas are small compared to the whole watershed area and the mitigation measures to be implemented include re-shaping of the surface to feed borrow areas, settling ponds and filtering dams.

Localized marine pollution risks exist from spills or accidental discharge of fuel or lubricants. Mitigation measures include routine inspections of storage and transfer facilities; hydrocarbon transfer procedures; suitable spill response equipment for type of storage; and personnel trained in hydrocarbon transfer and spill response measures. WBN plans to have a boat available and ready at all hours for deployment of booms, buoys and nets to contain pollution, if necessary. The operation of heavy equipment is expected to generate dust and noise. Dust suppression (watering) will be conducted as necessary. Noise levels in nearby villages will be within national limits and WBG EHS Guidelines for residential areas.

**Operations Phase.** Soil erosion and runoff, solid, aqueous and hazardous wastes disposal, dust and air emissions, hazardous materials storage, and vibration and noise pollution are expected and being studied and managed to avoid or reduce adverse impacts to soils, surface and ground waters, and air quality from the four operations stage activities: (i) ore mining (land clearing, topsoil and overburden removal and stockpiling, evacuation and transport of ore); (ii) ore processing (hydrometallurgical, solid residue separation and disposal, liquid effluent disposal); (iii) limestone quarrying and processing (land clearing, removal and stockpiling of topsoil, limestone quarrying, limestone transport, stockpiling and crushing, and lime production); and (iv) operation of infrastructure and supporting facilities (port and barge loader, dedicated airport, sulfuric acid plant, power plant). Mined areas will be rehabilitated progressively. The total disturbance from mining is anticipated to be always less than 500ha at any time.

Soils: Potential erosion and runoff is expected from land clearing, topsoil and overburden removal, and stockpiling activities. Erosion control measures will be implemented. Stockpiled topsoil will be at a maximum height of 4 m and surrounded by berms. Stockpiled overburden will be controlled through mulching and stabilization. Marginal disturbed areas outside the mine pits will be susceptible to erosion during transition periods as will be the waste limestone dump, limestone stockpile and other disturbed areas outside the quarry boundary. However the impact from these areas will be measured and mitigation strategies applied as required.

Surface water: Potential impacts to surface water is possible from all four operations stage activities, relating to: runoff from land clearing, topsoil and overburden removal and stockpiling, ore excavation and limestone quarrying; leachate from ore excavation and solid residue disposal; hazardous material leaks and spills; and non-process solid, aqueous and hazardous waste streams. The hydrometallurgical process uses sulfuric acid in a modern closed system. No heap leaching will occur and no potential impacts to surface water will result.

TSS laden runoff is expected from activities that contribute to soil erosion. However, all aqueous discharges will be required to meet TSS effluent limits in national law and WBG EHS Guidelines. Construction of a water management system to slow, accumulate and store runoff prior to entering receiving waters using structures such as sediment fences, sediment ponds and diversion drains will mitigate impacts, in addition to erosion control. Impacts may not be fully mitigated, as topsoil and overburden removal and stockpiling

may result in short term increases of TSS in surface waters, particularly during rainfall, as well as contributions from areas outside the mine pits and quarry boundary.

Potential impacts from leachate carrying suspended or dissolved solids are possible from solid residue disposal and a risk from ore excavation activities. Water infiltration of the RSF could lead to releases of leachate containing TSS and sulfate to surface waters, with potential effects on pH and hardness of the receiving waters. However, testing has determined that the solid residue is stable and not susceptible to leaching metals or metal related compounds. In other words, there are very low free metal concentrations. Mitigation is through a water management system and the RSF's modular design. Cells will be capped upon completion to limit infiltration, diversion channels will be constructed above and around each cell and any leaching that may occur will be collected at the hillside interface and drained to a sediment pond before monitoring and release. Mineral degradation triggered by atmospheric conditions, photochemical processes and microbiological activities can mobilize also TSS and metals into the surface water from ore excavation. While baseline water quality testing has indicated that there is no metals dissolution at the mine pit, long term monitoring will be implemented to proactively anticipate, detect, and address any possible releases.

Hazardous material leaks and spills are a potential risk from infrastructure operations. Hydrocarbon (fuel and lubricants) management and spill response plans will be developed consistent with national law, WBG EHS Guidelines, and best practice. Fuels and lubricants will be stored in secondary containment. Oil/water separators will be installed at all potential outflow locations, enabling recovery of oil from the washing of heavy vehicles.

Non-process wastes include solid (domestic, organic, consumables, packaging), aqueous (sanitary wastewater) and hazardous (batteries, lubricants, medical waste) waste streams. Risks will be mitigated through: sorting organic waste and recyclables; daily collection and landfilling of inorganic domestic waste; treating sanitary wastewater using recognized technology consistent with national law, the Performance Standards, WBG EHS Guidelines and best practice; and the collection and disposal of hazardous wastes consistent with national regulations.

*Ground water:* All four operations stage activities potentially could impact groundwater, including: reduced recharge from land clearing; leachate from solid residue disposal; changes to the flow pattern from limestone quarrying; hazardous materials leaks and spills; and contamination from non-process solid, aqueous and hazardous waste streams.

Land clearing is expected to increase surface runoff flow, decreasing the rate of ground water recharge. The water management system will slow runoff flow and partially mitigate this impact.

Leachate from the RSF could possibly mobilize and transport soluble substances into the ground water. Testing of solid residues has determined that they are stable and not susceptible to leaching metals or metal related compounds at unacceptable levels and

leachates present are in low concentrations and within acceptable levels. The RSF also features an impervious clay bottom with seepage collection and monitoring system. Ongoing studies and monitoring will investigate further whether a hydrogeological connection exists with groundwater or with the Transmigration village.

Changes to groundwater patterns as a result of limestone quarrying are expected to impact water table elevations, gradients or flow directions. Ground water recharge will eventually increase due to runoff the confinement of runoff within the quarry boundaries and as a result of infiltration being enabled by the permeable rock on the quarry floor. Further studies are being performed to confirm if there is a hydrogeological connection and its likely extent between the quarry site and the Sagea Lagoon.

*Marine water:* Impacts to the marine environment will be related to wastewater discharge from ore processing and runoff, and potential hazardous materials leaks and spills from the dedicated port and barge loader.

The ore processing plant will produce wastewater that will be treated by neutralization and clarification, resulting in an effluent that is expected to meet national effluent limits and be of similar characteristics to seawater, except for elevated temperature, magnesium, and sulfate. No significant levels of suspended sediment are projected, no cumulative effects are predicted, and only a limited area is affected by the discharge and rapid dispersion of the effluent indicates that any impacts are reversible.

The wastewater will contain no slurry and/or solid residues and no slurry and/or solid residues will be discharged to any water body. The AMDAL concludes that the drystacking of solid residues is the best option environmentally, and fully in compliance with environmental standards. Solid residues will be separated during the hydrometallurgical process, then subsequently dewatered and transported to the RSF for disposal.

Runoff at the dedicated port and barge loader site will drain to a sediment pond that overflows to the sea. No soluble salts are likely to be present. Hydrocarbon management and spill response plans will be developed during detailed design. Oil/water separators will be installed. Spills into the sea of limestone at the barge unloading facility and sulfur at the main bulk solids terminal would deposit on nearby sea floor.

Air quality: Dust, sulfur dioxide, hydrogen sulfide, nitrogen oxides and carbon dioxide emissions are expected to impact air quality from operations stage activities. Adverse impacts to air quality are primarily related to emissions of dust, sulfur dioxide and hydrogen sulfide.

Dust will be generated by overburden removal and stockpiling, and ore excavation and transport; limestone quarrying and processing; and at the dedicated port and barge loader. Dust from ore mining is produced from operation of heavy equipment, wind erosion, ore transportation and re-suspension of dust from haulage and access roads. Dust from limestone quarrying and processing is expected to be within national air quality limits at the nearby village of Gemaf. Port and barge loader operations can generate dust from the

loading and unloading of limestone. Dust suppression will be implemented along haul roads and at selected point sources.

The sulfuric acid plant and the ore processing plant are the main sources of sulfur dioxide and hydrogen sulfide emissions. The acid plant will use a state of the art double catalysis system corresponding to best available technology to ensure that emission levels for inorganic products are far within national air quality limits, within WBG EHS Guidelines and do not affect a wide area. The ore processing plant will generate gaseous emissions that will be vented through scrubbers and predicted to be within national air quality and odor limits.

Sulfur dioxide and nitrous oxides are expected to be limited from the power plant (small capacity) and lime production plant. Power plant emissions are addressed in the total emissions from the plant site area. The power plant is energy efficient, with the turbines mostly driven by steam from the sulfuric acid plant, however the design provides for a separate back up oil-fired small boiler. Lime production will use diesel fuel and pass all emissions through bag-house filters. Emissions will be continuous, but are predicted to be within national air quality limits and in line with WBG EHS Guidelines.

*Noise and vibration:* Limestone quarrying and processing activities will generate punctuated noise and vibration, with additional noise expected from infrastructure operations.

Infrequent (twice per week) blasting is the only noise source from limestone quarrying and processing that might be audible at the nearest village of Gemaf (about 2.5 km from quarry), where it will resemble a distant thunder sound. All other noises from limestone activities will be within national limits at nearby villages. Blasting, crushing and grinding will create ground vibration, however it is not expected to reach nearby villages. Blasting will produce an 'air wave' that may rattle windows in Gemaf under certain conditions. Nearby villages will be informed in advance about blasting and noise and these activities will be confined between 7am and 7pm. Community consultations and grievance mechanisms will address concerns and additional mitigation measures will be applied if necessary.

Continuous noise generated by the power plant turbines and transient noise from port operations are expected to be within national limits at nearby villages. Noise attenuation at the power plant will mitigate impacts and ship whistles at the port will produce an intense, but short sound. The airstrip will generate high levels of noise exceeding the national standard at nearby villages, however the noise will only be for short duration and will not occur at night.

#### PS4: Community Health, Safety and Security

The potential project impacts on community health, safety and security are associated with the project infrastructure, equipment, hazardous materials safety, use of security personnel, influx of workers which would lead to increased exposure to diseases (e.g. HIV), community unrest, increased crime, and other health issues due to increased

population pressure on scarce physical infrastructure and health services. Most of these issues would only arise with the construction and operation phases of the project. In anticipation of these issues, the Local Development Support program was started in 2008 to implement actions to support people, health, education and infrastructure in the local villages; including financing permanent doctors and nurses in the two villages of Halteng and Haltim, and launching programs for dispensary renovation and clean water.

During the exploration and feasibility period, aviation accidents can be considered as a potential risk to community health and safety. However, the area's extremely low population density reduces the probability of community casualties to a very low level. The dedicated airport is fenced and closed to community access. No industrial facilities are planned to be constructed adjacent to villages. However, local residents have been clearing and planting land on and near future project sites that have been identified for them by the geotechnical drilling program. This phenomenon is expected to continue through the remaining period prior to construction. WBN plans to work closely with the local government and communities in establishing and enforcing cut-off dates (which will be disclosed) and a detailed land use plan for the entire site permit area. If carried out properly, this will forestall the types of uncontrolled and incompatible developments that could increase the community's health, safety, and security risks.

In all phases of the project, industrial activities (including the residue storage facility) will be separated from communities and access will not be allowed. A traffic management plan will be developed and implemented by WBN and all contractors will be required to comply with the plan to mitigate traffic accident risks during the construction and operation phases.

Health: The social-public health baseline studies, developed in depth in 2007 and 2008 and currently under completion, indicate that the residents of villages in the Project region suffer from the diseases and medical conditions commonplace in rural areas of Southeast Asia and the Southwest Pacific. Sanitation is fairly primitive and medical infrastructure is limited. Since 2008 WBN has been implementing local health programs as part of its Local Development Support program. These include providing financial support for physicians, paramedics, and midwives to move on scheduled circuits among the villages and supplement the limited public health facilities. Information (including interviews with doctors) indicates this program is making a difference in health conditions in the project region. In 2009, as part of the Local Development Support program, WBN signed agreements with the Health Agencies of Central and East Halmahera Regencies to station doctors in selected villages in both regencies to improve access to professional medical services for residents in surrounding villages and to provide general community health support. WBN also conducts campaigns on Health Education such as Influenza H1N1 and coordinates with Local Government Health Offices in 15 villages in the two regencies. It is planned to further develop health programs and facilities in close cooperation with provincial and national authorities before the construction phase commences.

Influx: During construction and operation phases increased health and security risks will inevitably result from large-scale in-migration of laborers and formal and informal

service providers to a sparsely populated area of (currently on the order of 5,000 total in local villages). Such an influx of population will create a significant risk to community health and safety due to increased risk of communicable diseases, increased pressure on already scarce physical infrastructure and health facilities, and increased risk of crime if a comprehensive influx management plan (including health and security components) is not implemented in close collaboration with local and national authorities before the construction phase starts. WBN's plans for controlling the impacts of this in-migration, to a remote area with traditional community structures and previously little population pressure on the environment have not yet been developed. However, work is underway on this, and WBN is committed to develop an appropriate strategy and a comprehensive plan to manage this impact. In order to manage the in-migration adequately, the project enterprise will need the close collaboration of national, provincial and local governments.

WBN has developed Corporate Evacuation Guidelines and Emergency Evacuation Plans and provides practical training at the project site. At present, coordination of emergency planning with the local villages has not progressed to a detailed level. A single exercise has been performed. A detailed emergency evacuation plan, including coordination with communities and settlements will be developed for construction and operation phases. These plans will be discussed with communities.

Security: Given the historical context and local conflicts experienced between 1999 and 2002 in Maluku and North Maluku provinces, there is a risk of conflict breaking out again. WBN acknowledges the need for a careful and comprehensive security policy. WBN's security services provider is PT. Secom Indrapratama (part of the Japanese firm Secom, who also provide security services to other mining companies in Indonesia).

During the current phase, Secom provides 26 security staff at Tanjung Ulie base camp including 23 local staff who provide guard manning services. WBN also engages the services of a Site Risk Manager on secondment from Control Risks, an international business risk and security consultancy. A number of guards are posted at the smaller camps which support field programs and are remote from residential settlements. The key due diligence in hiring security personnel is a police record check that is initially performed on all security staff applicants. A security grievance mechanism is being developed.

Local communities, have on a few occasions, expressed their concerns and needs through demonstrations, and all demonstrations thus far have been peaceful. A risk assessor from Control Risk spends one week every month on site to assess security and updates the security plan with the Site Risk Manager as warranted. WBN security also works together with the local Police at Weda (POLRES) in accordance with a Memorandum of Understanding between WBN and the Provincial Police Command (POLDA) in Ternate. A small number of Police personnel are stationed at Tanjung Ulie, the Ake Jira Camp, and also at various field camps, paid by the Company. WBN prohibits firearms within the Camp and the police cooperate with this. The Police and HANSIP (unarmed civil security personnel) are onsite during community demonstrations and strikes. Police have not been actively involved in these situations, but have simply maintaining watch while the contract security handles the situation.

Since the current security measures were instituted in October 2008, there is said to have been no complaints or tensions from the community or employees from any of the measures. WBN conducted a Strategic Risk Study to address security issues in each stage of development and is developing further programs for construction and operating phases. As the project progresses and more security measures are put in place, the local community is being informed and a grievance mechanism consistent with PS4 is being implemented. The influx management plan will also include a security management component to be developed and implemented in close collaboration with local authorities.

There is a screening process, including a test, in the hiring process for security guards. Secom also conducts yearly training programs; security staff will have basic training and additional specific security training at the Secom training centre in Bogor run by Yayasan Bhayangkara (Indonesian Police Foundation). As of February 2010, security staff had only been provided with basic training (three times a year and a monthly refresher class). WBN conducted a Strategic Risk Study to address security issues in each stage of development and is developing further programs for the construction and operation phases.

### PS5: Land Acquisition and Involuntary Resettlement

The project's land acquisition requires no physical displacement of families, but in some cases land acquisition will cause economic displacement. The land in the project area is classified as State land. Land ownership/use by individuals in the area falls into two broad categories: (i) traditionally owned, which is based on traditional claims, and (ii) land acquired through legal purchase, which requires a certification process sanctioned by the National Land Board (BPN). In the project area however, the vast majority of land use is the former type, with very few users holding formal land title certificates issued by BPN.

The acquisition process is transparent, will follow both national laws and PS5, and involves consultation with villagers. WBN, in conjunction with the local authorities, will strive to acquire the land at a fair price, with minimal impact on the value of other nearby land.

WBN has already acquired approximately 7 ha land for the current camp which has been certified by BPN. An additional 43 Ha has also been acquired for the airstrip with the certification currently in process. Land measurement and inventory for the main industrial complex (plant, port and support infrastructure), requiring 215 ha of land, was were completed in 2009. Additional land for the construction camp, permanent accommodation facilities and camp utilities will require an additional 210 Ha and land measurement and inventory in these areas is yet to be completed.

An independent land market price survey and land value appraisal was completed in January 2010, and negotiations for land compensation have started. The villages of Lelilef Sawai, Lelilef Woebulen and Gemaf are the villages primarily affected by the project's planned land takings.

WBN has taken a negotiated settlement approach to this process, only acquiring land where it is unavoidable, as per PS5. Persons who are without legally recognizable claims to land for lost assets (such as crops, irrigation infrastructure and other improvements made to the land) other than land, will be compensated at full replacement cost. In cases where project-related land acquisition results in loss of livelihoods or income of those without any legal title or legally recognized or recognizable claim to land, they are entitled to a range of assistance, including compensation for lost assets and any structures on land as well as targeted assistance and transitional support and to enable them to establish sustainable livelihood resources. This is consistent with PS5. Land and crop values and appraisal methods have been discussed at public meetings, and negotiations were started in January 2010. A grievance mechanism will be established by WBN for land acquisition and compensation. An update of their plans for announcement of a "cutoff date" for land claims was not available. For the second area of 210 hectares, a cut-off date will be set the week before the survey begins. Finally, a precise understanding of the customary land claims of the most relevant villages in the land acquisitions process is necessary.

The following documents are under preparation by WBN:

- *The Census Report* will include a survey of all 425 hectares of assets and land claims. This Census Report will be separate and more detailed than the inventories already carried out or planned (referred to above).
- The Land Acquisition and Compensation Plan will be an Action Plan that will detail compensation entitlements (consistent with PS5) and include any necessary income restitution actions, including in response to data on non-land-acquisition economic displacement effects from the Community Social Assessment Report.
- The Resettlement Framework will focus on the requirements of Indonesian laws/regulations as well as PS5 requirements for involuntary resettlement including those specifying the process to be undertaken when new land acquisition activities take place in the future.

Apart from the land to be acquired for the construction of permanent facilities, additional areas to be utilized for the proposed mine and associated facilities are expected to amount to about 2, 650ha in total for the 30 year concession period. Continuation of mining activities (and associated haulage and access roads) beyond 30 years may require additional areas to be acquired, although the permanent facilities will not need to be extended. In general, the mining areas throughout the project operations will be Forest land obtained through the "borrow-and-use" mechanism (see Section PS6).

## PS6: Biodiversity Conservation and Sustainable Natural Resource Management

The WBN Contract of Work (COW) is 54,874 ha and contains mangrove and fresh water swamp forest, various lowland forest habitat types, and lower montane forest. Less than half of the total area is designated Protected Forest by the Ministry of Forestry, and no part of the COW is within national parks, specifically the Lalobata and Aketajawe National Park (See Table 1).

Table 1. Forest Area Classification in the Contract of Work (COW)

Forest Classification	Area (Hectares)	Percentage (%)
Conservation Forest	0	0
Protected Forest (HL)	25,118	45.8
Limited Production Forest (HPT)	13,026	23.7
Production Forest (HP)	6,807	12.4
Conversion Production Forest (HPK)	8,650	15.8
Other Use (APL)	1,273	2.3
Total	54,874	100.0

The total area to be used for mining and processing for the first 30 years will be approximately 2,650 ha (less than 5% of the COW) which includes mining areas (1,800 ha), residue storage (400 ha), limestone quarry (100 ha), and mining and access roads (80 ha). However, the impact of the project is likely to extend beyond these areas due to the secondary impacts of population pressures associated with in-migration. Settlement and agricultural activity is prevalent along the coast but decreases rapidly toward the hilly and less accessible interior, which has been relatively untouched by human activity apart from selective logging.

**Exploration and Feasibility Phase**. Impacts on habitats and species biodiversity are likely to be small during the exploration and feasibility phase, although further construction of roads and drill sites will require some forest clearing. Information provided by the company and its consultants indicates that test-drilling sites are small in size and require the removal of at most several individual trees. Past test sites are reportedly showing rapid re-establishment of ground cover due to edge effects. Further road construction will result in some opening of access to forest areas as well as limited forest clearing. However, without a significant increase in human presence during the exploration and feasibility phase, increased access is unlikely to lead to increased encroachment.

Soil erosion from the test pit and access road may impact surface water through increasing TSS in the Sake River, the Bukit Limber stream and the Santa Monica stream, leading to negative impacts on aquatic organisms. This potential negative impact on water quality is likely to be short in duration and reversible, with impacts mitigated by construction of a water management system. Drainage work has been completed and is operational. Surface water quality and aquatic biota abundance has been and will continue to be monitored throughout the life of the project. Habitat reduction as a result of land clearing for the test pit and access road is expected, however, the area involved is small in relation to the unaffected areas of similar habitat, and the impact is deemed to be reversible through rehabilitation. Construction and operation of the test pit has enabled WBN to evaluate mining methods and mitigation measures to reduce potential impacts.

Land acquisition during the exploration and feasibility phase may result in limited encroachment into forested areas due to the displacement of agricultural activities. The company plans to acquire 425 ha of land from local farmers and other sources for the

construction of the factory and supporting facilities. Taking this land out of agricultural production may lead to the opening up of some new forest areas, and it will be important to ensure that impacts on habitat are minimized.

Construction Phase. Significant negative impacts on biodiversity are likely to result from the uncontrolled in-migration of laborers and service providers. WBN believes it will be possible to minimize the environmental impacts of the influx of "official" workers (i.e. those engaged by construction sub-contractors under formal employment agreements prior to their arrival at the site) by housing them in a self-contained temporary construction camp and by using a 'fly-in-fly-out' approach where these workers are accommodated on a "single" basis (i.e. no families). This approach is expected to limit the population impacts, but it will be much more difficult to prevent spontaneous and uncontrolled in-migration of other job-seekers from occurring. The company is currently developing terms of reference to study this issue and to develop an appropriate influx management plan to be part of the project management plan.

Port construction will have a negative but localized impact on marine organisms. Construction of the bulk terminal will bury a 300 m length of the fringing coral reef and piling for the liquid bulk terminal will disturb another small section of reef, 500 m to the northeast. However, according to the ANDAL, the area of reef damage is small (less than 1%) in relation to the total areas occupied by reefs in the project area. Also, in the area nearest the port, coral life forms are reportedly already significantly damaged prior to WBN activities. Port construction should also increase levels of total suspended solids (TSS) and oil and grease, which may have some localized effects on marine organisms. Two relatively small areas are involved; however, currents may carry suspended solids beyond these areas.

Increased erosion from land clearing and construction will deliver additional suspended sediment into surface waters, which could negatively impact aquatic flora and fauna. Land clearing during construction will affect several watersheds including those of the Kobe, Wosea, Sake, Tjetju, and Gemaf Rivers. Settling ponds, filtering dams and other erosion control strategies will be used to mitigate this impact. However, there will be very limited stages during construction where the settling ponds will have not yet been established and, in fact, construction of these settling ponds themselves may lead to erosion. Rivers still containing naturally high concentration of TSS will contain additional quantities as a result of land clearing activities. A possible impact of increased TSS in surface waters is to reef–forming organisms as a result of discharges into Weda Bay where sediment deposition on coral reefs would be potentially detrimental. This is being further assessed during the detailed studies. Incidences of high suspended sediment levels will be short, enabling some recovery of marine ecosystems between events. The ANDAL deems the effects of erosion on aquatic life as largely reversible as controls become established.

While WBN has shown considerable dedication to achieving environmental objectives, the company will rely largely on contractors and subcontractors for road building, construction, and land clearing activities. The company needs to ensure that the initial

damage to forests is minimized (i.e. leave as many trees standing as possible), as this will reduce erosion and facilitate future recovery. WBN is committed to allocating a sufficient budget and monitoring efforts for environmental activities and to ensure that contractors follow strict environmental guidelines as the project proceeds.

Operations Phase. Forest clearing for stockpiling of topsoil, overburden, and ore mining operations will lead to increased erosion, which could negatively impact water quality and the abundance of freshwater plankton and benthos in case of failure of erosion mitigations measures. The company plans to put into place numerous erosion control measures with demonstrated efficacy in Eramet's (WBN's majority shareholder) other projects, such as diversion of surface water flow away from cleared areas, mulching, silt fencing and construction of appropriate drainage in and around stockpiles to mitigate these impacts. Nonetheless, intense, localized and short-term increases in TSS are possible. If this occurs, such an increase could negatively impact the abundance of plankton and benthos in local streams, which are susceptible to change in their physical environment. According to the ANDAL, these effects are largely reversible in the long-term and will cease when mining operations are over and when rehabilitation is established within specific catchments.

Changes in seawater quality due to port activities and disposal of liquid effluent will result in impacts to the abundance of plankton, benthos and coral life forms in the vicinity of the port and close to the outfall. Port activities may lead to increases in TSS, hydrocarbons and oil and grease in seawater, all of which have the capacity to interfere with the life cycle of lower life forms if present in sufficient quantities. Effluent concentrations of Mg and SO<sub>4</sub> and the temperature of the effluent are projected to be higher than in seawater and, accordingly, there may be some negative effects on marine organisms close to the outfall. Impacts are being closely assessed and some of the potential localized effects on coral fish will be clearly characterized. Nothing irreversible has been identified to date.

The project will lead to the clearing of intact rain forest areas of up to 500 ha each (but mostly far smaller) for mining operations. Nine ore bodies will be exploited during the first 30 years of operations, some of which are located on ridge tops pits. In the more elevated locations, these ridge tops are within a Protected Forest area and are likely to be in pristine condition. Land clearing leads to habitat destruction and fragmentation, but the ANDAL notes that the habitats involved are all widespread in the region. Overall, one would expect an intense local impact, but not a significant direct impact in terms of regional losses of flora and fauna. However, further analysis will be carried out, once pit locations are finalized.

Operations within the Protected Forest are conducted under a 'Borrow/Use' agreement with the Ministry of Forestry. The 'Borrow/Use' agreement requires WBN to pay for the use of the land during the clearing process and then rehabilitate the location(s) to an established standard (as set by the Ministry of Forestry).

WBN will undertake significant forest rehabilitation activities to be in compliance with the national law (including the borrow/use agreement) as well as PS6 requirements. In

2007, WBN created an 11 Ha test area, which is allowing trials of rehabilitation and reforestation methods to be undertaken. A tree nursery was started concurrently with the test pit and includes a variety of local cover crop and tree species. A second nursery is located at lower altitude. Trials with cover crops, hydro-seeding, and various local tree species are ongoing. The results of these trials will be used to develop the most effective methods to rehabilitate and reforest mining areas during full-scale operations. Eramet has had a successful experience in rehabilitating and reforesting mining areas in its New Caledonia mining project. However, the complete restoration of rainforest ecosystems is known to be difficult, if not impossible. Especially in the larger pits, reforestation will be challenging as the portion of pit that is forest edge decreases.

It should be noted that the WBN project is likely to negatively impact a forest area larger than that directly affected by mining. As was discussed under PS4, in addition to the project workers, the project will attract job seekers and service providers to a remote area with previously little population pressure on the environment. In-migrants will require land for settlement and cultivation, and this would lead to clearing of forest. However, any such impact would be in areas designated as Conversion Production Forest, near the coast, or possibly Production Forest. More widespread forest degradation could result from increased small scale logging activities, from fires associated with land clearing, and from illegal hunting. The mining roads will allow access to previously inaccessible forest areas and this would exacerbate these indirect impacts.

WBN plans to develop a strategy for reducing the attractiveness of in-migration, and for managing the impacts of the in-migration that would still occur. Strong government commitment for appropriate spatial planning and law enforcement will be necessary. The main challenges will be to develop and enforce conducive spatial plans and to ensure compliance with existing laws (including COW permit and forestry laws). It should be noted that local government capacity concerning such issues should be strengthened also, to complement what WBN can do. One of the critical mitigation measures is proper oversight by government agencies together with WBN.

#### PS7: Indigenous Peoples

Indonesia is one of the most ethnically and culturally diverse countries in the world. There is no definitive list and identified number of ethnic groups or languages spoken and no agreement on the use of the term "Indigenous Peoples". Conservative estimates list about 500 ethnic groups speaking as many languages, while other sources estimate up to 2,000 ethnic groups. Traditionally the term associated with Indigenous Peoples in Indonesia is Terpencil (isolated community), which refers to remote and vulnerable communities.

Forest Tobelo (Tugutil) people are known to inhabit the inland forests of Halmahera, and could potentially be affected by the project activities. Forest Tobelo people are nomadic, depending on hunting and gathering for subsistence, and occasionally visiting lower elevations to harvest sago. Members of the groups generally avoid contact with other inhabitants of Halmahera, but sometimes interact to exchange goods for tobacco, salt, and

rice. WBN social and environment staff have had brief contacts with them during exploration and feasibility activities, but it can be expected that they will largely avoid contact with project operations. Preliminary anthropological studies along with site experience, suggest that the Forest Tobelo are currently present in the Jira River valley (proposed location of the RSF) and in the northern parts of the COW in East Halmahera regency, close to the Tofu Bleuwen deposit. Reference studies have also indicated that they are also known to range widely throughout other parts of the island. The extent to which the Forest Tobelo depends on resources within or close to areas to be mined is not known. It is possible that Project activities may hamper their movements and cause changes to livelihood patterns and distress. WBN consultants have conducted studies of the Forest Tobelo.. A report on Forest Tobelo People, discussing potential impacts of the project and mitigation measures will be submitted to MIGA and disclosed by WBN in due time.

Other groups in the project area that the ANDAL refers to are the Sawai people and the Village Tobelo (who live in the village of South Wasile), a different group from the Forest Tobelo. Information indicates that the Sawai people in the Halmahera social context do not display vulnerability as they are fully integrated in mainstream social and economic systems. Furthermore, in the Indonesian context, the Sawai are not in the remote or isolated status of the Forest Tobelo and are full participants in the regional mainstream. However, individuals claim adat (communal) rights. There are well-founded fears that by bringing more 'outsiders' into the area, the Project might contribute to the erosion of customary beliefs and practices. Mechanisms to help preserve and promote local intangible cultural heritage is an area where the Project might be able to establish itself as an international "good practice" example. WBN is committed to preparing and implementing community development plans (covering all project affected communities) consistent with PS7 principles and requirements with a separate chapter for Forest Tobelo as a vulnerable group.

## PS8: Cultural Heritage

The vicinity of the project area was home to the two early Muslim kingdoms of Ternate and Tidore. Therefore undisclosed sites from the two kingdoms may exist in the Contract of Work area. It may also be possible to discover heritage sites belonging to the local indigenous groups. The Community Social Assessment (CSA) undertaken in November-December 2009 within the framework of the ongoing Bankable Feasibility ESHIA study included interviews with locals whose knowledge indicates the presence of sacred sites within the project impact area. In order to prevent disturbance of such sites, the project will develop mechanisms for identification of areas of potentially significant cultural heritage. Such mechanisms would likely be organized into two categories: those investigating and mapping oral accounts of sacred sites (a process to be conducted and completed before operations) and those designed to test and "clear" mining and construction sites prior to disturbing the land (an ongoing process).

PS8 also covers intangible cultural heritage in the event the project proposes to exploit that heritage commercially. WBN ensures that its operations will not adversely affect such aspects of customary community practices, representations, knowledge, and skills.

The CSA gathered information on local heritage customs as part of a cultural baseline for the Project. Discussions were also held with local adat leaders to learn about efforts to promote and preserve local culture.

No Cultural Heritage finds were reported during construction of the project airport, the base camp, the mining test pit, or any other facilities. But the full project area has not yet been subjected to detailed scoping and appraisal for tangible cultural heritage, although initial cultural heritage survey questions were part of the Community Social Assessments in November-December 2009. During the Community Social Assessment, attention was brought to one such potential site of archaeological significance not far from Tanjung Ulie base camp: a purported depository of human remains from a 17th century period of tribal warfare under the Ternate sultanate. Sacred sites have been claimed by several project-affected villages, and more may be claimed by the nomadic group living in the interior, the Forest Tobelo.

Within the framework of the BFS ESHIA study, activities are under way to screen for the likelihood of cultural heritage sites or artefacts in different locations in the project area, to complement existing baseline studies. This process will begin in May 2010 with an analysis of topographic data to identify natural features around which past settlements are likely to have formed. This will supplement a desk study of archaeological and archival information that will be undertaken during May and June 2010 that might indicate the presence of potential archaeological sites (based on findings in nearby areas, where a high density of artefacts have been unearthed by previous studies, or anecdotal evidence from nearby residents of the presence of a past settlement). The study also will include a review of national and international laws, regulations and policies to ensure that all cultural resource management laws are acknowledged, and will include consultation with government, academic, and civil society experts for "good practice" recommendations. Local experts from the area, including a noted anthropologist from Khairun University in Ternate, will be carrying out the desk studies. Their work will be peer reviewed by an international expert on cultural heritage preservation and indigenous cultural resource management. If the screening determines that more analysis is needed, then a Cultural Heritage Assessment (CHA) should be carried out in close collaboration with, and securing the permission of, local authorities. A CHA would involve a more rigorous appraisal of the potential heritage sites, such as shovel testing, either at random or in a grid pattern, to try to find evidence of artefact rich areas. WBN will develop a Cultural Heritage Preservation Plan before the construction phase starts, which will include a Chance Finds Protocol.

### F. Environmental Permitting Process and Community Engagement

Indonesian environmental regulation clearly defines the approval process of AMDAL and related information disclosure and public consultation requirements. As was explained in section E of this ESRS, the sponsors are asked to develop an AMDAL consisting of four documents: (i) Terms of Reference for environmental and social analyses (TOR); (ii) ANDAL (Environmental Impact Assessment, including baseline studies); (iii) Environmental Management Plan (RKL); (iv) Environmental Monitoring Plan (RPL).

The steps of AMDAL development and public consultations are summarized as follows:

- 1. Baseline studies gathering data
- 2. Public consultation and scoping analysis
- 3. Terms of References
- 4. Fieldwork
- 5. ANDAL, including RKL and RPL

AMDAL of this project was approved by the Environmental Protection Agency of North Maluku Province in June 2009 after being disclosed at the provincial level, through public technical committee and evaluation committee meetings at the national level and reviewed by an AMDAL commission consisting of civil society organizations and government representatives. For this project, the AMDAL commission consisted of 75 representatives from public agencies and NGOs. The AMDAL commission also assessed and approved the TOR of the project at the beginning of the process. A public announcement for public consultations was made in early December 2007 in national and local newspapers with the consultations being held later the same month at the project site in Halmahera and the provincial capital of Ternate. AMDAL meetings were held on April 24, 2009; April 25, 2009; April 28, 2009; May 2, 2009 and May 5, 2009. As a result of discussions, revisions were made in the AMDAL and sent for approval in June 2009. In addition to meetings in Jakarta and Ternate, WBN undertook community consultations in 2009. A project Information Center was opened in December 2009 at WBN's base camp in Tanjung Ulie, and weekly visits by community groups are now routinely organized by the company. In 2010 WBN also started quarterly general public information meetings and weekly community newsletters. A Public Consultation and Disclosure plan and a formal grievance mechanism are under preparation. Each village has a company liaison officer, who is being trained by WBN.

Communities have expressed demands through peaceful demonstrations on several occasions. A formal grievance mechanism and better functioning liaison officers will help WBN to understand community concerns and priorities in further detail and to respond in a timely manner. Information indicates that communities support the project in anticipation of income earning opportunities. They are primarily interested in selling agricultural products to the mine and being employed. MIGA's visit to three villages and meetings with communities confirm this finding.

## G. Availability of Documentation

AMDAL (February 2009) and Exploration and Development ESIA (February 2010) is available electronically as PDF attachments to this ESRS at <a href="https://www.MIGA.org">www.MIGA.org</a>.

Weda Bay ESIA (ANDAL).pdf
Weda Bay Exploration and Development ESIA.pdf
Weda Bay Environmental Management Plan.pdf
Weda Bay Environmental Monitoring Plan.pdf

By Indonesian law, the AMDAL document is public. It may be obtained in Ministry of Environment, Environmental Department of North Maluku province and in the Ministry of Energy and Mineral Resources (Department of Mine). Documents have been widely disclosed and copied during AMDAL public meetings with associated stakeholders and NGOs.