

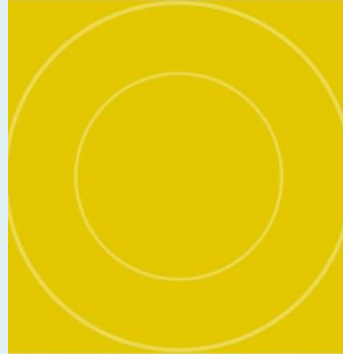
---

# Overview of Harita Nickel

---



From Obi,  
for Indonesia



# From Obi, for Indonesia



A beautiful view from the Komodo reclamation area at Site Obi

# Table of Contents

01

Key Highlights of Nickel in Indonesia



02

Overview of Harita Nickel

03

Waste Management & Environmental Protection

04

Impact on Communities







Key Highlights of  
Nickel in Indonesia

## Key Highlights of Nickel in Indonesia

Indonesia is a key player on the global stage due to its **large size, strategic location, and rich natural resource endowment.**



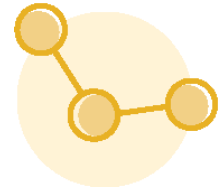
World's largest **Nickel reserves\***



World's fourth largest **population**



**17,500 islands with +108,000 km of coastline**



Strategic location for **international shipping access**

\*based on Mineral Commodities Summaries 2002 report by United States Geological Survey

# Indonesia's Journey Towards Nickel Industrialization

Nickel Ore

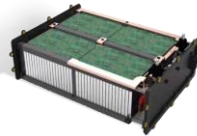
MHP, Ni, Co Sulfate

Chemical Components and  
Battery Cells

Cell, Module,  
and Battery

Electric Vehicles, Electricity Supply,  
ESS, and Infrastructure

Recycle







# Overview of Harita Nickel







Established over a century ago, **Harita Group** has more than **40,000+ employees** across various sectors.



## Agriculture

- **Palm oil plantation**  
52% in Singapore-listed Bumitama Agri, a palm oil cultivator and producer, with a market capitalisation of US\$1b.



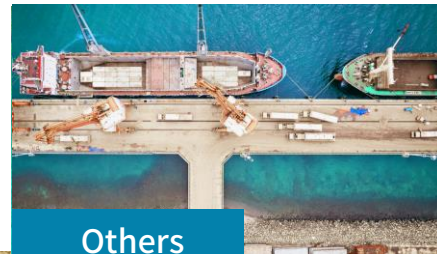
## Nickel

- **Mining**  
One of the largest nickel ore producers in Indonesia with mines located on Obi Island
- Listed on the Indonesia Stock Exchange - IDX
- **Processing**  
Two ferronickel smelters  
One HPAL Refinery  
Expansion plans on HPAL & Refinery are on going  
Total Capacity 230k tons of nickel per year by 2024  
Stainless Steel Plant in pipeline



## Bauxite

- **Bauxite Mining**  
Harita owns 61% in Indonesia listed CITA, the largest bauxite miner in Indonesia, with a market capitalisation of US\$820m
- **Alumina refinery**  
CITA owns 30% in WHW, a Smelter Grade Alumina refinery with capacity of 2 million tons per annum
- Glencore owns 32% of CITA



## Others

- **Shipping**  
140 vessels including tugs, barges, floating cranes, tankers, ferries
- **Mining support**  
Operational and logistical support to the mining operations of related companies
- **Real Estate**  
Partnered with Perennial Real Estate to develop a property project in Sentul City
- **Plywood and Timber**  
78% in Tirta Mahakam Resources, a manufacturer of plywood and related products
- **Securities**

# From Obi, for Indonesia



Located in the eastern part of Indonesia  
Kawasi Village, Obi District,  
Halmahera Selatan, North Maluku

National Strategic Project

National Vital Object

**>20,000**  
Employees



**>85%**  
Indonesians

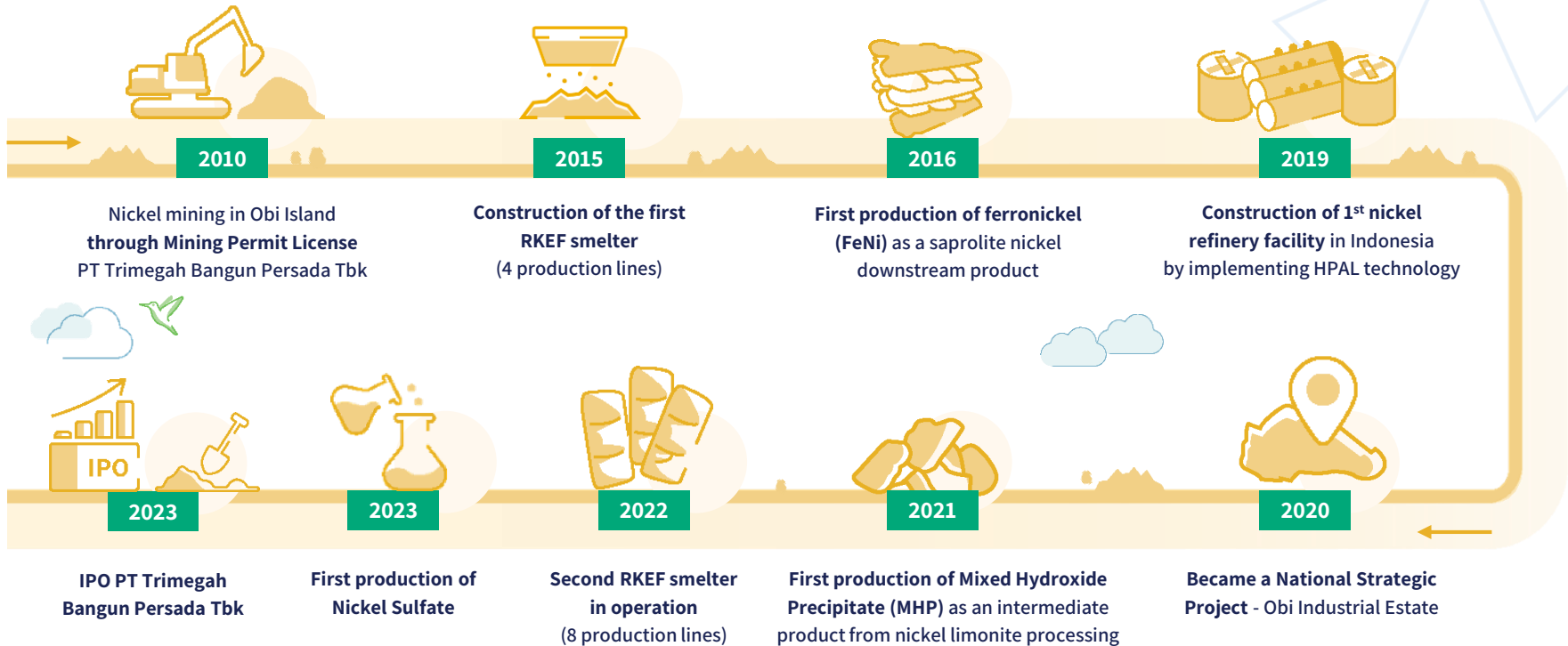


**>50%**

Employees from North Maluku



# Key Milestones







# Integrated Nickel Mining and Processing on Obi Island

## Subsidiary

- A  PT MSP (FeNi) Plants
- B  PT HJF (FeNi) Plants
- C  PT OST Power Plant

## Association

- D  PT ONC (MHP) Sulfate Plants
- E  PT HPL (MHP) Sulfate Plants
- F  PT OSS (SS) Plants
- G  PT KPS (FeNi) Plants



**Strong Exposure to Battery Materials**



**Unique Geographical Advantage with Low Operating Cost**



**Vertically Integrated Nickel Operations**





# Nickel Processing Facilities on Obi Island



Smelter RKEF

2016



Smelter HPAL

2021



Smelter RKEF

2022



Smelter HPAL

2024



Smelter RKEF

2025

**3 smelters** are on operational  
**2 smelters** are in the construction process



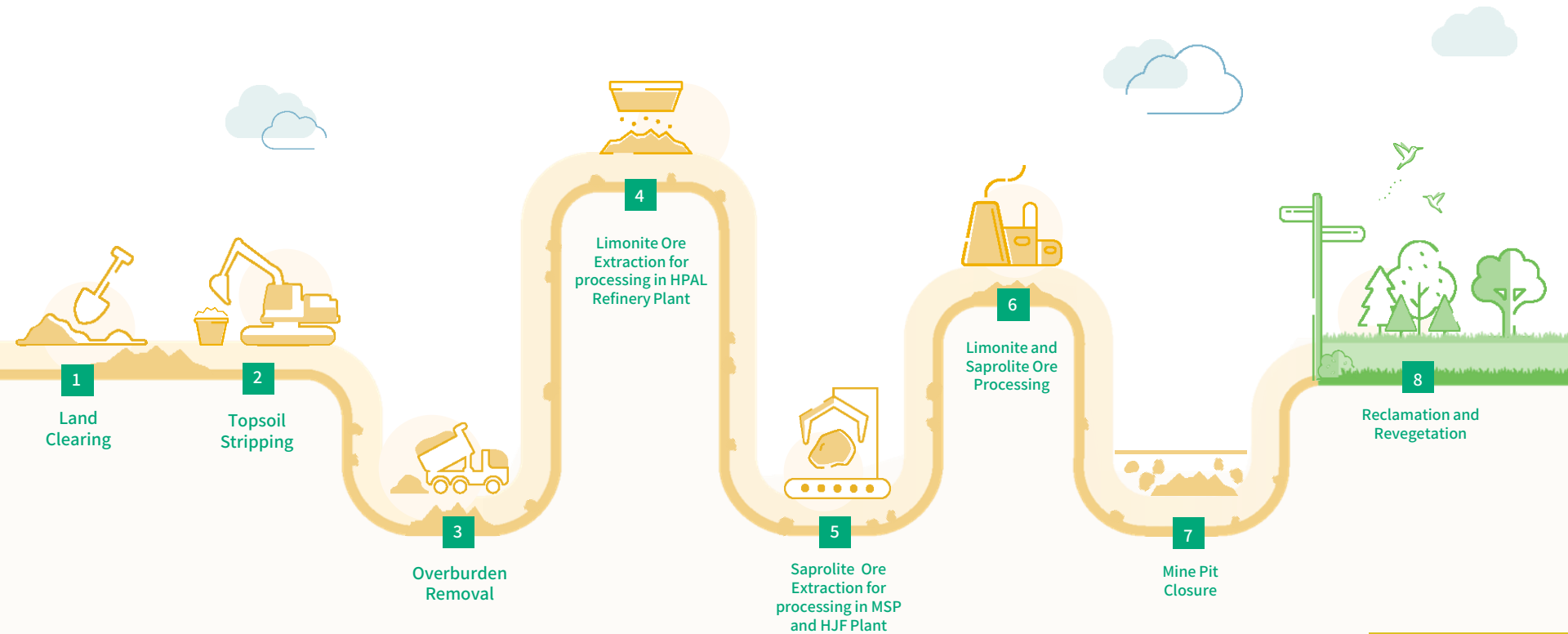
**Total investment**

**> Rp50 billion**

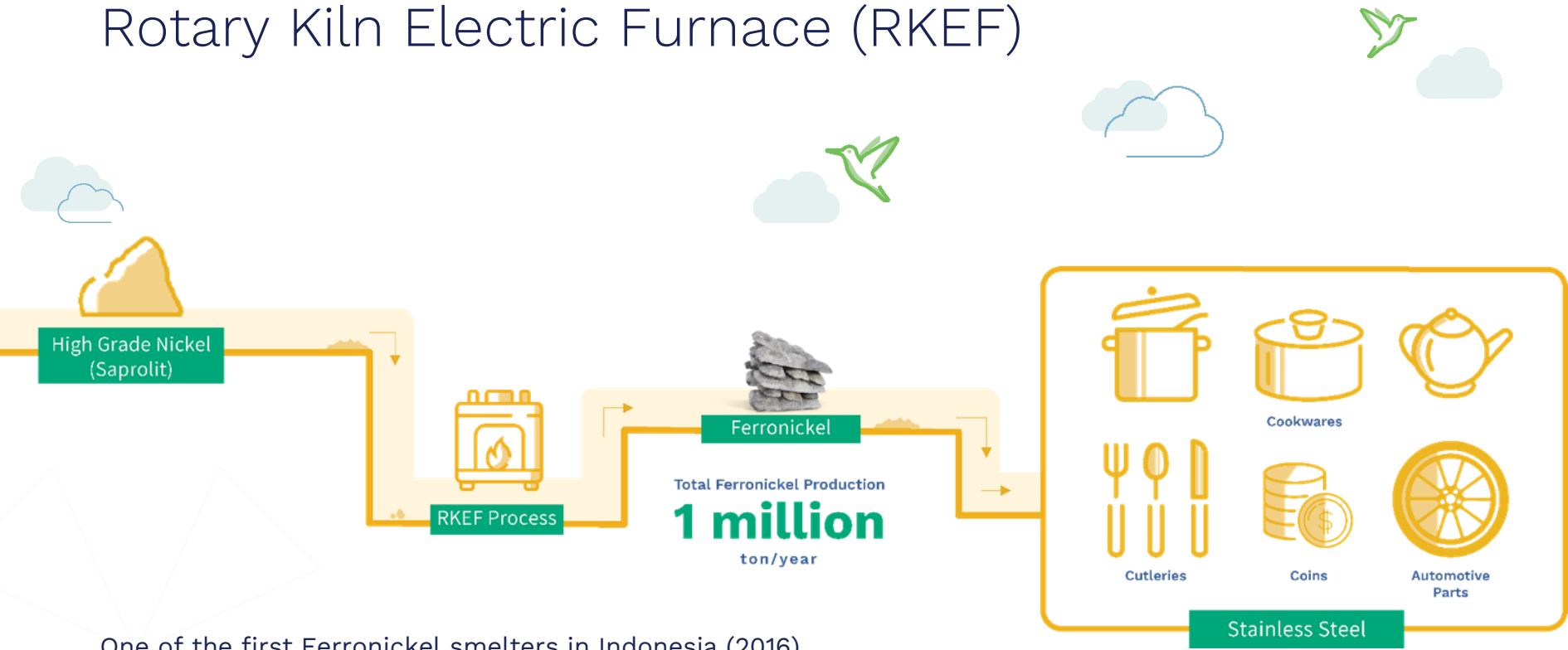
\*until mid-2023



# Nickel Mining Processing

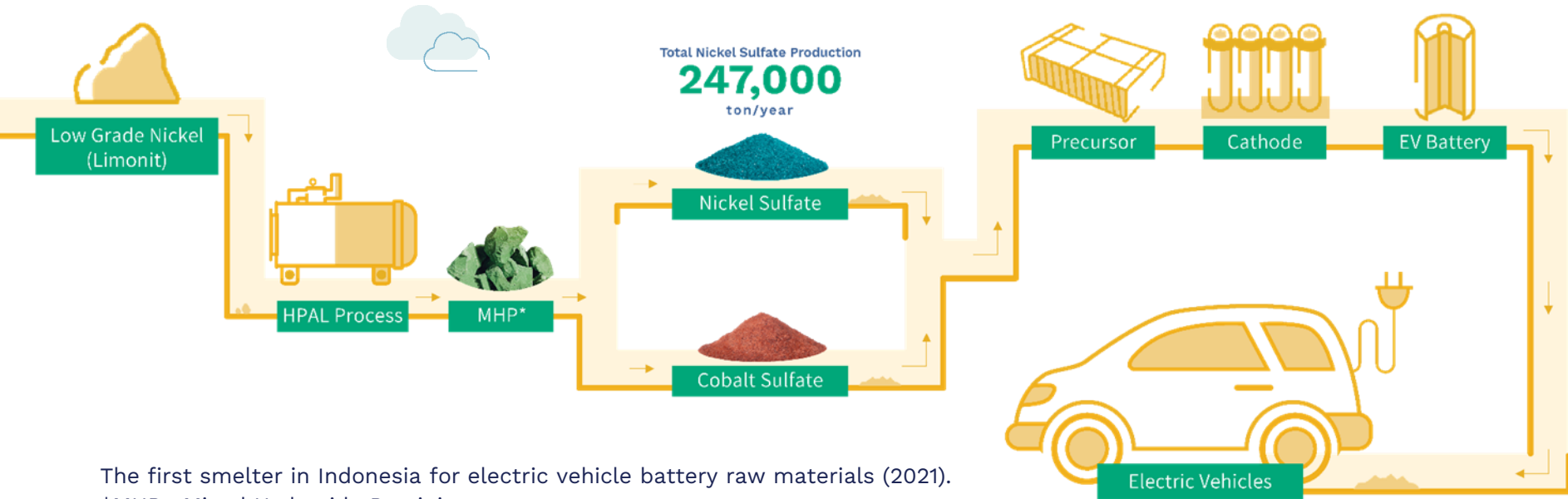


# Rotary Kiln Electric Furnace (RKEF)



One of the first Ferronickel smelters in Indonesia (2016).

# High Pressure Acid Leach (HPAL)



The first smelter in Indonesia for electric vehicle battery raw materials (2021).

\*MHP: Mixed Hydroxide Precipitate.



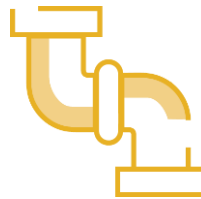


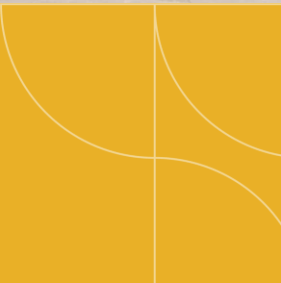
Waste Management

# Types of the Nickel Byproducts

- **Nickel slag:** a byproduct of RKEF process technology, a granulated slag formed by natural cooling or water quenching of a melt formed during the smelting process of nickel metal
- **Tailing slurry:** a byproduct of HPAL technology, composed of a low percent of solids and relatively high water content.

Both types of byproducts are considered as non-hazardous and non-toxic.





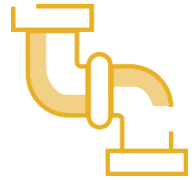
## The Use of Nickel Slag

- **Repurposing slag nickel**, a ferronickel smelting byproduct, for building materials like bricks and concrete mix.
- **Nickel slag concrete applied in factory road, construction, and industrial zone drainage.**
- Utilized a total of **409,715 m<sup>2</sup>** of nickel slag concrete.

# Tailing Neutralization Process

We utilize **Dry Stack System** with the procedure as follow.

- **Wet tailings are neutralized** in the tank to adjust pH.
- Our Environmental team and 3rd party' study shows that dried tailings are classified as **non-toxic, non-reactive, non-flammable, non-explosive, and non-corrosive**.
- Filter-pressing follows for the tailings, directing them to the **Liquid Wastewater Treatment Plant (WWTP)**.





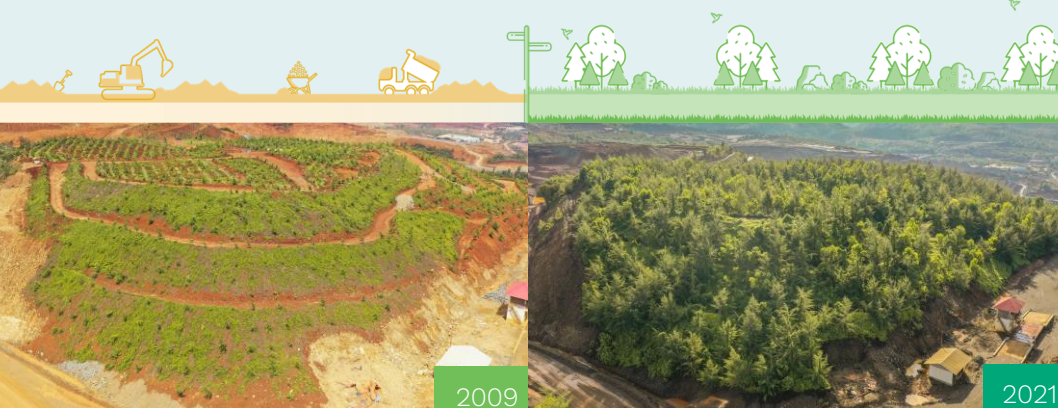


Environmental Protection  
& Management



# From Mines to Meadows

- Total area of mine pit as on 2022: **262.4 ha**
- Plant type: local plant and fast growing
- Monitored regularly by **independent 3rd party**





# Water and Sea Monitoring

- To ensure we remain compliant with government regulations, water quality is monitored regularly by independent, registered third party assessors and by the Harita team.
- Testing is carried out within the operation and at marine discharge points to ensure the organic chemicals, pH levels, temperature, salinity and total suspended solid measurements are within range.
- We use the **Environmental Protection and Management** law and the **Wastewater Standards for Nickel Mining** law as quality benchmarks.



# Environmental Conservation Programs

## Artificial Reefs

- **Management of Water Quality & Water Pollution Control** (Government Regulation No. 82 Year 2001)
- **Waste Water Quality Standard** (Baku Mutu Air Limbah) for Nickel Mining Activities (Minister of Environmental & Forestry's Regulation No. 9 Year 2006)

## Mangrove

- Up to Mar. 2023, total mangrove seeds planted are **47,000 seeds**. Total area planted: **22,49 hectares**
- **Location:** Soligi, Awango, Belang-Belang, and Guriaping Kayoa

## Biodiversity

- The **commitment** for biodiversity include the net terrestrial conservation gain within 20 years by conducting rehabilitation to maintain green space
- Our commitment to achieve net conservation include marine program such as **preservation and restoration** of mangrove areas and watershed







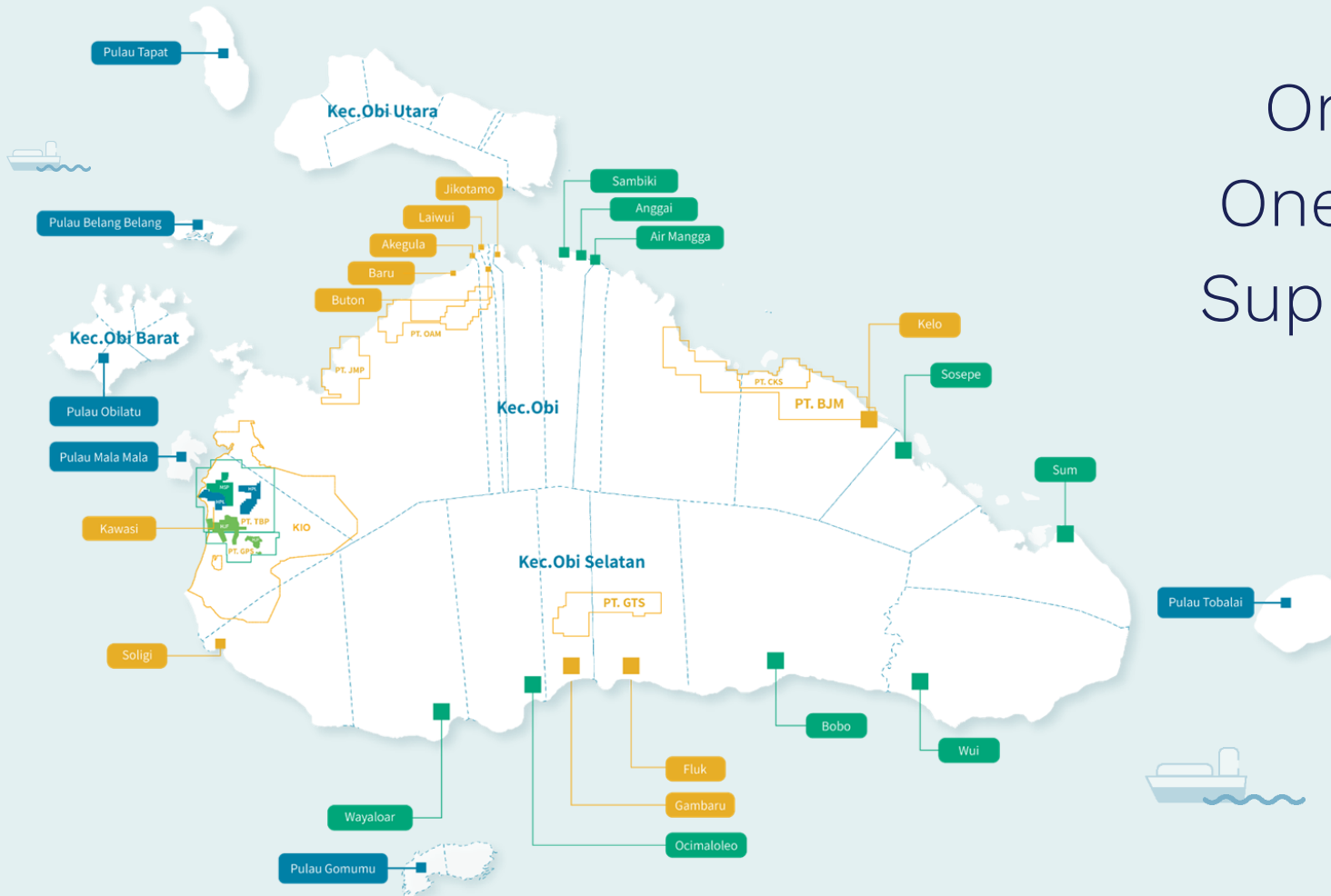
Impact on Communities

# Empowering Communities

Harita Nickel demonstrates its commitment to society well-being on Obi Island, not only through environmental concerns but also through active engagement with the local community.



# One Village One Product Supply Chain







# Infrastructures Improvement

PIJAR OBI, provision of basic electricity infrastructure to the residents of Kawasi Village, Tabuji Hamlet, and Baru Village.

# Infrastructures Improvement



**Electricity supply for 250 families at Kawasi Villages and 36 Families at Tabuji Villages**



**Obi Regency Building;  
Total building area 543 m2**



**Maintenance & Refurbish piping equipment, spring water facilities**



**Provision of churches and mosques in 4 Villages**



**Donations of Fire Trucks and Garbage Trucks**



**Drainage Construction at Kawasi Village**



**Normalization of Soligi River**





# Health Service Initiatives

Posyandu Assistance, Harita Nickel supports efforts to improve the quality of maternal and child health in the villages of Kawasi and Soligi.

# Health Service Initiatives



**1.359 Patients at  
Polindes Kawasi**



**251 Patients at  
Polindes Soligi**



**568 babies & mothers  
treated at POSYANDU  
Soligi**



**Free Medical  
Services; 4 MDs  
and 14 paramedics**



**399 babies & mothers  
treated at POSYANDU  
Kawasi**



**Providing 1 MD at  
Polindes Kawasi**



**Company's Clinic to  
serve Public  
Emergency Case**



**PHBS Trainings by  
Puskesmas Laiwui**



**Regular Medicine  
Donations for Polindes  
Kawasi**





# Economic Empowerment – Development

**OBI SEHATI**, Cultivation of Watermelon and Melon to boost the local economy in the mining's surrounding communities.

# Economic Empowerment – Development

## Agribusiness

### Providing Assistance



18 Farmer Groups;  
involving 388 Farmers

### RUTE



Rumah Usaha Tangguh Ekonomi  
Program: **Cultivating and production of tempeh & tofu**

### SENTANI



Sentra Ketahanan Pangan Obi  
Program - **Rice field: 40 hectares;**  
with production output 5,3 ton/ha

### Salam Kawasi



Integrated and Central  
Farming Area

### Horticulture Farming



Akelamo Jaya Group: **Cultivating long-beans, chili, and tomatoes**

### KABAR MAPAN



Cultivating **horticulture products**

### OBI SEHATI



Sentra Holtikultura & Agribisnis  
Tanggap Iklim Program:  
**Cultivating watermelon & melon**

### Super Hortima



Cultivating **horticulture products & Fresh Water Mina**

### IMPRESIF



Inisiasi Model Peternakan Progresif  
Program: **Farming & cultivating ducks, tomatoes and chili**

### Local Supplier



**Local Supplier;** 63, Total  
Transaction; 9 Miliar/month,  
**Local Job Creation 691**

## Fisheries

### SUTAN



**Fisherman Farming Business Center** and MINA KITA (Media for Initiation & Activation of Fresh Fish Entrepreneurship).

### Fisheries development and processing



**Fishermen group empowerment program** with various support such as building facilities, power generator units, boats and engines, and storage facilities.

## Women SME Business

### HOP Mart & Nyala Cafe



31 members

### Obi Snack Group



15 members







## Education Service Initiatives

**Educational Facilities and Infrastructure**, Harita Nickel promotes teaching and learning by supplying new furniture to all schools in the new Kawasi location.





**Provision** of incentive monthly assistance for 62 honorary teachers



**Teaching** supports at Kawasi & Soligi villages



**School Renovations;** incl. school equipment & facilities



**Sharing** by internal employee in "Harita Mengajar" Program



**Scholarships** for students



**Reading materials**  
Distribution of comic "Dari Obi untuk Indonesia" for 4 schools



**Apprenticeships** at UNKHAIR - Ternate, and 3 apprenticeships at UPN Veteran Yogyakarta



**Students** received immunization for Measles & Rubella

# Education Service Initiatives





**PAGELARA**  
Kesenian Ngibi  
Lomba Tari Cungka & S  
Program Pengembangan & Pemberdayaan Masyarakat  
Desa Soligi, Obi, Juni 2023

# Socio-Cultural Improvement

Ngibi Traditional Dance Festival, Harita Nickel hosted a dance art festival to preserved traditional Butonese dances in Soligi Village, Obi Island.

# Socio-Cultural Improvement



Art Festivals –  
Supporting Ngibi  
& Cakalele dance festivals



Sport Activities –  
Supporting local  
sport tournaments



Youth & Religious Activities  
- Supporting Religious  
Youth Programs



Disaster victims, providing food  
packages for 904 poor people,  
providing kerosene for 384 families  
at Kawasi Village



Social Donations -  
Supporting 502 orphans





New Kawasi Village





# New Kawasi Village



**259 unit with 4 types** of houses building



**24 hours** electricity  
access & clean water



**Sport** facilities for students & community



**Public Services** Facilities:  
Village Office & BUMDES  
Sub-district Health Center  
Hitualamo (Hall), Children's  
Playground Area



**School** Facilities  
Early childhood education,  
Islamic school, Elementary school,  
Junior High School, High School



**Integrate Farming Area**  
Development & Training in  
High-Value Agricultural Commodities



**Central Economic** Services:  
Mini Market, Market Stalls, Food  
Court, Laundry, Bank.



**Religious** Facilities:  
Mosque, Prayer Room,  
and Church



- Public use 1,5 Ha
- Public Port
- 7-meter and 5-meter **Concrete Roads**
- **Integrated Waste Management**





Syukur Dofu Dofu