

## **PROJECT DESCRIPTION FOR SCOPING (PDS)**

### **I. Need for the Project, Its Goals, and Objectives**

The PANHUA Integrated Steel Company, Inc is an international company duly recognized by the Philippine government as one of its potential investors. The said company is a part of the PANHUA Group Co., Ltd that manufactures steel products.

At present there is an observed continuous increase in the demand for steel in the Philippines that is estimated to be at an average annual rate of 5.5 percent and expected to exceed 20 million tons by 2030. It is said that the proportion of steel demand for construction in the downstream steel industry is also expected to increase from 81 to 84 percent.

As mentioned above, there is a great potential for this industry in the local market since, the 30 percent of the steel products that can be produced by the project will meet the country's apparent consumption making it basically self-sufficient in steel requirements.

The 3 MTPA Steel Mill Project being proposed in Brgy Kamanga, Maasim, Sarangani Province is said to be the first steel melting company in Mindanao. The location of the said project is within the Kamanga Agro-Industrial Economic Zone to cover 47.4 hectares. This project will directly benefit the community through the jobs it can create apart from its larger impact in the community in economic perspective. In addition, the province can as well elevate eth value of its limestone since it will be the major source of limestone as a component in making steel products.

#### **Goal:**

To be the primary supplier of quality and affordable steel products in Mindanao and in ASEAN Region.

#### **Objectives:**

1. To meet the demand of steel products in the country by producing 3 million metric tons per annum of quality and affordable steel billets;
2. To increase government revenue collection through taxes, permits, and other statutory requirements;
3. To improve local economy through provision of social development programs for the directly and indirectly affected people; and

4. To safeguard the natural environment by implementing environmental protection, rehabilitation, and management programs.

## II. Alternatives

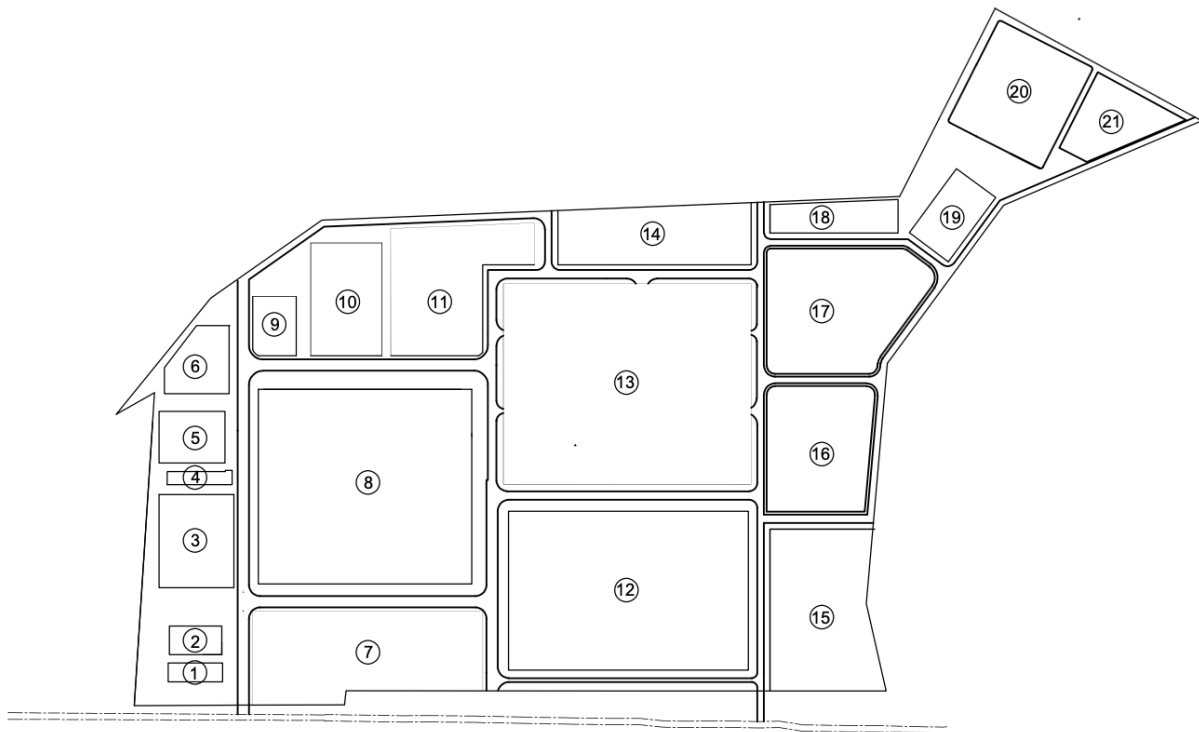
### A. Project Type, Component and Size

This steel mill project is classified as Non-Environmentally Critical Project in Environmentally Critical Area (ECA) under Presidential Proclamation No. 2146 (Group II). Per proposed annual production (3 million Metric Tons per Annum), the proponent is required to submit and EIA report as requirement by EMB in the process and issuance of ECC for this project.

Below are the components of the project:

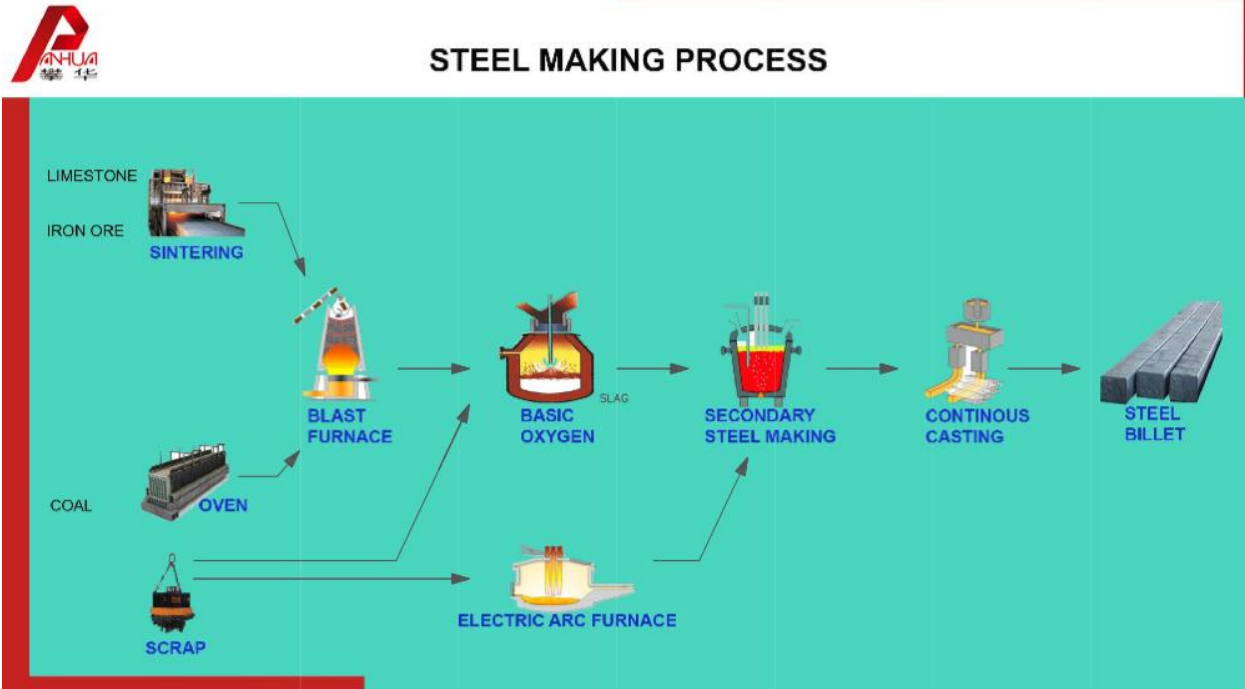
Project Components		
Manufacturing Process	<ul style="list-style-type: none"> <li>• Raw Material Preparation</li> <li>• Sintering</li> <li>• Iron Making</li> </ul>	<ul style="list-style-type: none"> <li>• Steel Making</li> <li>• Continuous Casting</li> <li>• Steel Rolling</li> </ul>
Process Systems	<ul style="list-style-type: none"> <li>• Raw water supply and treatment system</li> <li>• Process make-up water treatment system</li> <li>• Chemical dosing system</li> </ul>	<ul style="list-style-type: none"> <li>• Compressed air system</li> <li>• Chemical cleaning and blowing</li> <li>• Fuel unloading and storage system</li> </ul>
Pollution Control System	<ul style="list-style-type: none"> <li>• Sewage system</li> <li>• Oil-water separator (OWS)</li> <li>• Cooling water</li> <li>• Particulate control</li> </ul>	<ul style="list-style-type: none"> <li>• Process wastewater treatment</li> <li>• Hazardous wastes management</li> <li>• Municipal solid wastes management</li> </ul>
Support Facilities	<ul style="list-style-type: none"> <li>• Civil structures</li> <li>• Gas and Power</li> <li>• Storm water and sewage management</li> </ul>	<ul style="list-style-type: none"> <li>• Telecommunications</li> <li>• Accommodations</li> </ul>
Safety and protection systems	<ul style="list-style-type: none"> <li>• HVAC and Fire Protection</li> <li>• Anti-gas</li> <li>• Explosion measures</li> <li>• Preventive measures for equipment accidents &amp; mechanical injuries</li> </ul>	<ul style="list-style-type: none"> <li>• Lightning protection measures</li> <li>• Electricity safety measures</li> <li>• Heat radiation measures</li> <li>• Noise attenuation</li> <li>• Measures for falling from heights</li> </ul>

The overall layout of Steel Plant. 1 -Sewage treatment plant , 2-Laboratory Center, 3- Continuous Casting Water Treatment, 4-Converter Water Treatment, 5-Dust Collector, 6-Scarp Yard, 7-Raw Materials Yard (Coke & Iron Ore), 8-Converter and Continuous Casting Workshop, 9-Converter Gas Dust Removal, 10-Converter Gas Tank, 11-Raw Material Yard for Limestone and Lime Kiln, 12-Sintering Workshop, 13-Blast Furnace Workshop, 14-Coal Pulverizing System, 15-Warehouse, 16-Cast Iron Locomotive Room, 17- Pulverize Coal and Gas to Generate Electricity, 18-Used Gas Farm, 19-Substation, 20-Oxygen Making Plant, 21-Raw Water Treatment.



**Figure 1: Steel Mill Plant Layout**

## B. Process Technology



## C. Resource Utilization

### Source of Power Supply

To ensure high reliability of power supply during the operation, adequate redundancies in the transmission and distribution will be incorporated in the detailed design stage. Electricity may be supplied by the local distribution utility.

### Water Supply and Demand

Water recycling will be practiced using new technology of steel processing adopted from China. Water supply during operational phase will be sourced from the local distribution utility within the barangay or from the neighboring barangays like Tinoto. Water harvesting will be resorted and reuse of treated wastewater for mill plant use is envisioned.

### III. PROPOSED LOCATION OF THE PROJECT

#### A. Location

The project will be situated within the Kamanga Agro-Industrial Economic Zone with coordinates of 5<sup>0</sup>51'53.284" N; 125<sup>0</sup>4'42.5316" E covering 47.4 hectares on the coast of Barangay Kamanga, Sarangani Province, Mindanao, Philippines. The project area is 47.5 Km from General Santos City or 1 hour and 8 minutes ride via South Cotabato – Sarangani road.

Project Location	Barangay	Municipality	Province	Region
	Kamanga	Maasim	Sarangani	Region XII
Project Area	TOTAL AREA: 47.4 hectares			

The factors considered for the project siting are as follows:

- availability of lot property;
- the property is covered under PEZA;
- compatibility with the existing land use (I2 classification) as well as the support of the Local Government Unit (LGU) in favor of the project; and
- basic services are available.

While alternative locations were considered, none met the above-mentioned requirements as well as the proposed area.

#### B. Severity of Impacts

The severity of impacts in terms in project siting alternatives is minimized due to the following:

- no communities will be displaced as the project site is an industrial area and privately-owned; and
- no indigenous groups are present in the area.

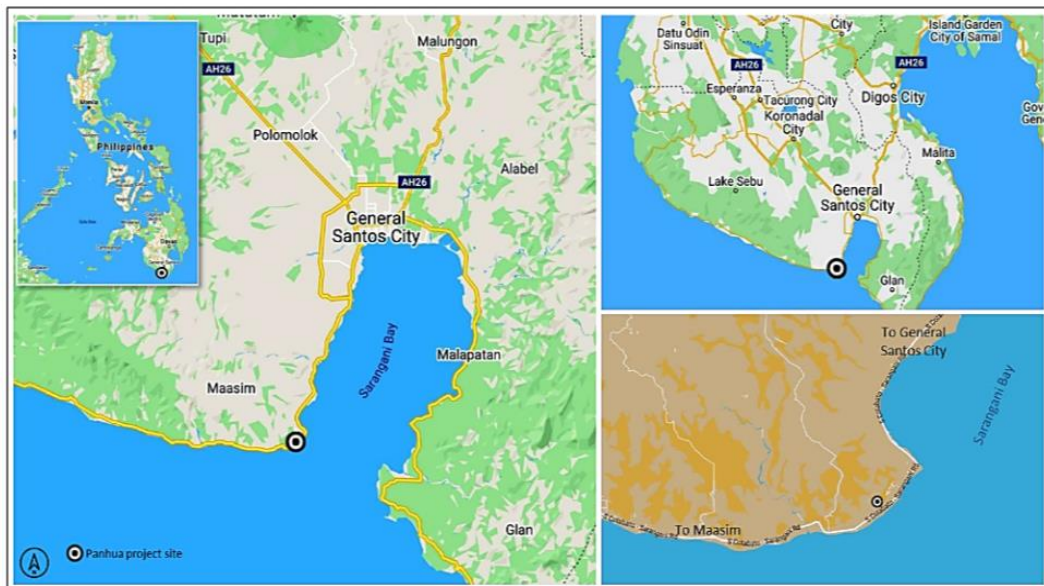
#### C. Project Alternative

The 'no-go' alternative is the option of not proceeding with the proposed project. This alternative will result in the continuation of the project site's current state which is devoid of any development. Since the site is

underutilized, no yield is expected which would mean no profit and no additional income for the local government.

The proposed project will offer substantive socio-economic benefits not only for the host local government of Maasim but also to the regional and national levels as well. Without the project, the economic benefits such as employment, livelihood opportunities, social development programs, and revenues for the local government as funds for projects will not be pursued.

#### IV. MAP (Google Earth Photos)



The proposed steel plant will be located in Kamanga Agro-Industrial Ecozone, Barangay Kamanga, Municipality of Maasim, Province of Sarangani, Region XII (SOCCSKSARGEN).



1-Kilometer Impact Areas of the Proposed Project



Adjacent Energy Plant of the Proposed Project



Coastal Communities near the Project Site



Land Use in the Upper Portion of the Proposed Project Site



## V. PROJECT PROPONENT

The PANHUA Integrated Steel Inc, is a duly registered Ecozone Export Enterprise at the Kamanga Agro-Industrial Economic Zone with PEZA Certificate of Registration No. 20-118 issued on December 22, 2020 at Pasay City, Philippines. It is an authorized business entity under the Foreign Investment Act of 1991 with SEC Registration No. CS20200000083 issued by Securities and Exchange Commission on 10<sup>th</sup> of January 2020. The corporation is registered to engage in the business of manufacturing, production, sub-contracting, export, import, purchase, sale, and distribution or iron and steel, non-ferrous materials, metallic minerals, non-metallic minerals, and related products thereof and of any of form or goods or merchandise which may be the object of commerce such as but not limited to machinery and equipment for construction in commercial basis. The principal office of the corporation is in Kamanga Agro Industrial Ecozone, Maasim, Sarangani Province, Mindanao, Philippines.

Name of Project	PANHUA INTEGRATED STEEL, INC. – 3 MTPA STEEL MILL PROJECT	
Type of Project	Steel Manufacturing Plant	
Design Capacity	3 million tons per annum (MTPA) for PHASE 1	
Project Cost	USD 174M	
Construction Period	(1) One year	
Operation	Annual Cycle	Economic Lifespan
	8,400 hours (24h a day, 350 days a year)	30 years
Manpower	Construction	Operation
	1500	500

## VI. PROJECT TIMEFRAME

YEAR	Activities
2021	Pre-Implementation Phase
2022-2023	Construction Phase
2024	Operation Phase

The estimated cost for Phase I of this project is 174 million US dollar. The operation will start upon the issuance of ECC and other permits.

## VII. PRELIMINARY IDENTIFIED ENVIRONMENTAL ASPECT FOR EACH ALTERNATIVE

Major Activities Description / Details Key Environmental Aspects or Activities	Potential Impact, Nature and Estimates of Major Emissions	Impact Mitigation, Built-in Management Measures and Facilities Planned
<b><i>Pre-Construction Phase</i></b>		
Land	Compatibility of land use	Secure land use certificate and PAMB permits simultaneous with ECC application.
<b><i>Construction Phase</i></b>		
Construction of steel mill complex / plant and other components (ex. Waste water treatment facility)	Air emission and noise pollution from equipment and vehicles	<ul style="list-style-type: none"> <li>• Regular water sprays/ sprinkling in construction site</li> <li>• Use of PPE among workers</li> <li>• Construction operation during day time</li> <li>• Install traffic signs/signages and hiring of spotters</li> <li>• Regular maintenance of equipment and vehicles</li> </ul>

	Health and safety hazards	<ul style="list-style-type: none"> <li>• Creation and strict implementation of 5S and health and safety protocols</li> <li>• Regular safety inspection, meetings, and re-orientations</li> <li>• Provision of first aid kits in strategic locations</li> </ul>
<b>Operation Phase</b>		
Steel Mill Operation (Phase 1)	Water pollution and other hazardous wastes (used oil, busted bulbs, contaminated rags and gloves, etc)	<ul style="list-style-type: none"> <li>• Recycling of water and zero discharge</li> <li>• Proper collection, transport and treatment of hazardous wastes through accredited TSD facility</li> </ul>
	Air and noise pollution	<ul style="list-style-type: none"> <li>• Training on proper use of equipment</li> <li>• Use of water sprays, enclosures, barriers, and buffer zones</li> <li>• Regular ambient air and noise monitoring</li> </ul>
	Generation of steel mill scales	<ul style="list-style-type: none"> <li>• Recycling of steel mill scales by smelting process</li> </ul>
	Employment generation	<ul style="list-style-type: none"> <li>• Priority hiring of qualified local workforce based on skills and needs</li> </ul>
	Increase economic opportunities	<ul style="list-style-type: none"> <li>• Timely payment of tax obligations</li> <li>• Provision of social development programs</li> </ul>
<b>Abandonment Phase</b>		

Removal of wastes	Change in land use	<ul style="list-style-type: none"><li>• Grading and stabilization works</li><li>• Tree planting</li><li>• Marine biodiversity rehabilitation</li></ul>
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