

# ESIA for Project Anma

Social Impact Assessment



DATE 23 July 2025

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## **ESIA** for Project Anma

Social Impact Assessment



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### ACRONYMS AND ABBREVIATIONS

Acronym	Description
AFA	Agricultural and Forestry Area
AoI	Area of Influence
APCA	Agricultural Production Control Area
AWC	Anma Offshore Wind Energy
CIA	Cumulative Impact Assessment
EEZ	Exclusive Economic Zone
EHS	Environmental, Health, and Safety
EIA	Environmental Impact Assessment
EIAA	Environmental Impact Assessment Act
EIASS	Environmental Impact Assessment Support System
EP	Equator Principles
EP4	Equator Principles 4
EPAP	Equator Principle Action Plan
EPC	Engineering, Procurement and Construction
ER	Emergency
EPFI	Equator Principles Financing Institutions
ERC	Electricity Regulation Commission
ERM	ERM Korea Ltd.
ERP	Emergency Response Plan
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESG	Environmental, Social, Governance
ESGMF	ESG Management Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
FDI	Fishery Damage Investigation
FDIA	Fishery Damage Impact Assessment
FPIC	Free, Prior, and Informed Consent
GIIP	Good International Industry Practice
GM	Grievance Mechanism
HRIA	Human Rights Impact Assessment
IAC	Inter Array Cable
ICP	Informed Consultation and Participation

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Acronym	Description
IFC	International Finance Corporation
ILO	International Labour Organisation
IUCN	International Union for the Conservation of Nature
KEI	Korea Environment Institute
KRW	Korean Won
LRP	Livelihood Restoration Plan
MOE	Ministry of Environment
MTSA	Maritime Traffic Safety Assessment
NGOs	Non-Governmental Organizations
NTS	Non-Technical Summary
OECD	Economic Cooperation and Development
OHS	Occupational Health and Safety
OWF	Offshore Wind Farm
PAP	Project Affected People
PS	Performance Standards
RFFA	Reasonably Foreseeable Future Actions
SCMP	Supply Chain Management Plan
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
VECs	Valued Environmental and Social Components
VTS	Vessel Traffic Service
WTGs	Wind Turbine Generator

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ESIA FOR PROJECT ANMA INTRODUCTION

### 1. INTRODUCTION

**Anma Offshore Wind Energy Co., Ltd.** (AWC) is developing the offshore wind farm project located adjacent to Anma-do, Yeonggwang-gun, Jeollanam-do, Republic of Korea (Project Anma or the "Project"). The Project is managed by special purpose company AWC, which is owned by Equis Wind (Korea) Holdings Pte.

ERM Korea Ltd. (ERM) has been appointed by AWC to undertake the Social Impact Assessment (SIA) for the Project. To incorporate updates based on comments from the Lender's Environmental and Social Advisor (LESA), IA Partners Co., Ltd., a member of INOGEN Alliance (INOGEN) has been engaged to carry out the necessary revisions.

The SIA focuses on understanding the potential salient social risks and impacts associated with the planned construction, operation and decommissioning of the Project. The outcomes of the SIA will help in understanding potential social risks associated with the Project.

The SIA has been undertaken based on the Internationally Recognized Standards (Applicable Standards) that are summarised below:

- International Finance Corporation (IFC) Performance Standards (PS) 2012;
- IFC General Environmental, Health, and Safety (EHS) Guidelines (2007);
- IFC EHS Guideline for Wind Energy (2015);
- IFC EHS Guideline for Electric Power Transmission and Distribution (2007); and
- Equator Principles 4 (EP 4).

### 1.1 OBJECTIVE

The objectives of this SIA are to:

- Assess the potential adverse social risks and impacts from the proposed Project activities on the Project Affected People (PAP), local communities, and other stakeholders;
- Develop control or mitigation measures to eliminate/minimise adverse social impacts from the Project activities;
- Identify opportunities for the Project to provide positive impacts to the communities; and
- Create a framework for handling community grievances transparently and effectively throughout the project lifecycle.

### 1.2 DOCUMENT STRUCTURE

The remainder of the SIA report is structured as follows:

- **Section 2 Project Description:** outlines the Project components and workforce arrangements, along with identifying nearby operations. This detail is used to inform the baseline snapshot and the impact assessment;
- Section 3 Applicable Standards: describe the standards that have been applied during the undertaking of the SIA;
- Section 4 Approach: provides an overview of the SIA methodology/approach;
- Section 5 Scoping: summaries the outcome of the scoping process which include the AoI for the SIA (i.e. for onshore and offshore areas), and identification of potential receptors;

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Section 6: Social Baseline: identifies the receptors that may be impacted by the Project
and provides an assessment of the social impacts generated by the Project that may be
experienced by the receptors located within the Project AoI, including considering
mitigation measures;

- **Section 7 Impact Assessment and Mitigation:** identifies the PAP that may be impacted by the Project and provides an assessment of the social impacts generated by the Project that may be experienced by the receptors located within the Project's AoI, including consideration of mitigation measures; and
- Section 8 Summary of the Social Impact: provides overall summary of the SIA.

### 1.3 LIMITATIONS

This SIA has been prepared based on a combination of regulatory-driven impact assessments, secondary data sources, and primary data collected by the Project team and its consultants. While significant efforts have been undertaken to ensure comprehensiveness and accuracy, certain methodological limitations should be acknowledged.

- The Fishery Damage Investigation (FDI), which provides critical information on fisheriesrelated impacts and compensation requirements, was ongoing at the time of this
  assessment. Consequently, the fisheries-related livelihood impacts presented here reflect
  preliminary data and stakeholder input, and may require updates upon the FDI's
  completion.
- This SIA was prepared based on the best available data at the time of writing. Certain details or findings may evolve as new information or data becomes available.

To address these methodological limitations, a conservative and precautionary approach has been applied to impact identification and mitigation planning, and triangulation of multiple sources of data has been employed to enhance reliability.

ESIA FOR PROJECT ANMA PROJECT DESCRIPTION

### 2. PROJECT DESCRIPTION

The Project Description including the Project's background (location, milestones, facilities and components, summary of EPC construction activities) is provided in Appendix A.

It has been developed as a standalone document to be read in conjunction with the main ESIA report. This ensures optimal coherence of the information through the updates and revisions.

This assessment is focusing on five major Project components:

- · Wind Turbine Generators (WTGs);
- Offshore Substation;
- Offshore Export Cable: within this report, when referring to Offshore Export Cable it is included the Inter Array Cable (IAC) as the implications related to physical risks are the same;
- Access Road;
- · Onshore Substation; and
- Onshore Export Cable.

### 3. APPLICABLE STANDARDS

As stated in Section 1, the Project and the SIA adopts the following as the Applicable Standards:

- Relevant E&S Regulations/Laws of South Korea;
- International Finance Corporation (IFC) Performance Standards (PS) 2012;
- IFC General Environmental, Health, and Safety (EHS) Guidelines (2007);
- IFC EHS Guideline for Wind Energy (2015);
- IFC EHS Guideline for Electric Power Transmission and Distribution (2007); and
- Equator Principles 4 (EP 4).

This Section further elaborate on the Applicable Standards of the Project.

### 3.1 NATIONAL LEGISLATION

This section presents the key E&S related South Korean regulations and/or laws which are considered as relevant to the Project. Table 3-1 presents relevant South Korean regulations and legislation in the context of social and relevant impact management. Key gaps of South Korean regulations have been provided under Appendix B, and AWC also has established a register of all environmental and social (E&S) related permits to make sure that the Project maintains relevant permits. Refer to ESMP Appendix G E&S Permit Register for full detail.

ESIA FOR PROJECT ANMA

# TABLE 3-1 APPLICABLE NATIONAL REGULATIONS LAWS REGARDING SOCIAL ASPECT

Parameter	Relevant Aspect	Reference	Relevant Contents
Baseline environment condition	Communities right for clean environment	Framework Act on Environmental Policy	"The State shall formulate environmental standards, based on the impacts, etc. on the ecosystem or human health and ensure that such standards maintain appropriateness according to changes in environmental conditions."  Although above requirement is directed to the state, the intention of the Act is to provide baseline environmental standard/condition for citizens, and therefore, by default, AWC should comply with the baseline standard to make sure communities/stakeholders' right for clean environmental is not adversely impacted.
Environmental impact assessment	Assessment of potential social adverse impact	Environmental Impact Assessment Act Marine Environment Management Act	"The purpose of this Act is to promote environment-friendly, sustainable development and healthy and pleasant life of citizens by forecasting and assessing the environmental impacts of a plan or project and by formulating measures for environmental conservation when a plan or project that has an environmental impact is formulated and implemented."  "The purpose of this Act is to prescribe matters necessary for the prevention, improvement, response, and recovery with regard to marine pollution, by managing sources that generate pollutants, such as ships, marine facilities, and marine spaces, and regulate discharge of marine pollutants such as oil and noxious liquid substances, thereby contributing to the protection of the health and wealth of the people of the Republic of Korea."  The Environmental Impact Assessment Act and the Marine Environment Management Act provide the environmental impact assessment framework for offshore projects. Based on the findings of the environmental impact assessment, and/or stakeholders caused by the Project.
Prior right holders of the public water	Provide provisions for the protection of rights related to fisheries and other offshore entitlements.	Public Waters Management and Reclamation Act	"In granting permission to occupy or use or holding consultations or giving approval referred to in Articles 8 and 10, where a person has a right determined by Presidential Decree, which is likely to be prejudiced due to such permit, consultations, or approval, the management agency of public waters shall not grant a permit, hold consultations, or give approval: Provided, That the foregoing shall not apply to any of the following cases:  • Where the person entitled to occupancy or use of public waters gives consent to the occupancy or use of the public waters;  • Where it is necessary for the State or a local government to perform public works projects determined by Presidential Decree, such as national defence or prevention of natural disaster, etc."  Before applying for Occupy or Use Permit of Public Waters, AWC shall identify prior rights holders (i.e. fishery right holders) who are likely to be prejudiced by the permit and obtain prior consent from them.
Fisheries	Provide provisions on how to assess damage/adverse impact to the fisheries	Fisheries Act	"A person who sustains a loss caused by any of the following dispositions may claim compensation for such loss against the administrative authority that has made such disposition:  • Where restrictions, etc. are imposed on licensed, permitted, or reported fishery business under this Act on any ground falling under Article 33 (1) 1 through 6 or subparagraph 6 of Article 34  Standards and methods for paying compensation under paragraph (1) and other matters necessary for compensation shall be prescribed by Presidential Decree."  Prior rights holders whose rights may be restricted by the Project may claim compensation from AWC, with the compensation amount determined in accordance with the Fisheries Act.
Workers	Provide provisions on occupational health and safety both for construction and operation phase of the Project.	Occupational Safety and Health Act	"A business owner shall maintain and promote the safety and health of employees by implementing the following, and comply with the policies of the State for preventing industrial accidents:  • Complying with the standards for preventing industrial accidents prescribed by this Act or any order issued pursuant to this Act;  • Creating a pleasant working environment and improving working conditions so as to decrease physical fatigue, mental stress, etc. of employees;  • Providing employees with information on safety and health at the relevant place of business."

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Parameter	Relevant Aspect	Reference	Relevant Contents
			AWC shall implement measures to maintain and promote workers' safety and health, prevent industrial accidents, and adhere to industrial accident prevention standards. This includes fostering a work environment and conditions that minimise workers' physical fatigue and mental stress.
Cultural Heritage	Provide provisions on cultural heritage survey, and relevant chance find procedure to minimise social impact through impacting cultural heritage	Protection and Inspection of Buried Cultural Heritage	"A person who intends to plan and implement a development project, such as the State, local governments, etc., shall ensure no damage to buried cultural heritage.  The implementer of construction works prescribed by Presidential Decree, depending on the scale of construction work, shall conduct an inspection of the ground surface (hereinafter referred to as "ground surface inspection") in order to verify whether national heritage is buried and distributed in the construction area.
			If the implementer of a development project prescribed in paragraph (1) finds buried cultural heritage while implementing a construction work, he or she shall immediately cease the relevant construction work.  If buried cultural heritage is discovered, the discoverer or the owner, occupier or manager of the area of buried cultural heritage shall
			AWC shall conduct a cultural heritage investigation prior to undertaking any construction projects above a specified scale. If cultural heritage is discovered during construction, halt work immediately, preserve the site, and report the finding to the Cultural Heritage Administration, local government or police, as appropriate.
Vessel Safety	Provide provisions on maritime safety to minimise the impact to the community with respect to vessel traffic and safety	Framework Act on Maritime Safety	"The fundamental concepts of this Act are to clarify that the State and local governments are responsible for protecting the lives, bodies, and property of citizens from any danger and obstacles that may occur in connection with the navigation and operation of vessels at sea; and to promote the safe and sustainable use of the sea by giving prime consideration to maritime safety, when formulating policy measures on the use or conservation of the sea."  Framework Act on Maritime Safety serves as the overarching law in the field of maritime safety management, and related regulations
			follow its principles. AWC shall prioritise the protection of citizens' lives and safety in all maritime activities.
Worker's Right	Provide provisions on the worker's right	Labour Standards Act	"The purpose of this Act is to establish the standards for terms and conditions of employment in conformity with the Constitution, thereby securing and improving the fundamental living standards of employees and achieving a well-balanced development of the national economy.
			The terms and conditions of employment prescribed by this Act shall be the minimum standards for employment, and the parties to labour relations shall not lower the terms and conditions of employment under the pretext of compliance with this Act."
			AWC shall comply with the provisions stipulated in the <i>Labour Standards Act</i> as minimum requirements to ensure the rights of workers as outlined in the <i>Constitution</i> .

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### 3.2 INTERNATIONAL STANDARDS

The SIA has been undertaken considering the international standards described in Section.

The Principle 3: Applicable Environmental and Social Standards of the EP4 defines the applicable standards for Designated Countries¹ as "relevant host country laws, regulations and permits that pertain to environmental and social issues". However, the Principle 3 also states "...for Projects located in Designated Countries, the EPFI will evaluate the specific risks of the Project to determine whether one or more of the IFC Performance Standards could be used as guidance to address those risks, in addition to host country laws. The EPFI may, at its sole discretion, undertake additional due diligence against additional standards relevant to specific risks of the Project and apply additional requirements".

Therefore, while EP4 is the primary standard being adopted in terms of the international E&S standard, IFC PS and its EHS Guidelines are also referred.

Section 3.2.1 to Section 3.2.3 provide further details on the EP4 and IFC PS.

### 3.2.1 INTERNATIONAL FINANCE CORPORATION PERFORMANCE STANDARDS

The IFC, a member of the World Bank Group (WBG), published a set of Performance Standards based upon the original World Bank Group Safeguard Policies in 2006, in recognition of the specific issues that are associated with private sector projects.

The IFC PS have been broadened to include issues such as greenhouse gases, human rights, community health, and safety and security. A revised set of Performance Standards came into force on January 1, 2012. The complete list of PS is provided in Figure 3-1.



FIGURE 3-1 EIGHT PERFORMANCE STANDARDS OF THE IFC

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<sup>&</sup>lt;sup>1</sup> Designated Countries are those countries deemed to have robust environmental and social governance, legislation systems and institutional capacity designed to protect their people and the natural environment. The Equator Principles Association makes no independent assessment of each country's performance in these areas. As a proxy for such an assessment, the Equator Principles Association requires that a country must be both a member of the OECD and appear on the World Bank High Income Country list to qualify as a Designated Country. These data sets are reviewed quarterly by the Equator Principles Secretariat to ensure that any change in status is reflected in the Designated Countries list. The list of Designated Countries can be found on the Equator Principles Association website (The Equator Principles - Equator Principles (equator-principles.com)).

The IFC Performance Standards are international guidelines for identifying and managing E&S risks and impacts and has been adopted by several organizations as a key component of their E&S risk management and/or framework.

# Performance Standard 1 – Assessment and Management of Environmental and Social Risks and Impacts

- To identify and evaluate E&S risks and impacts of the project;
- To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and where residual impacts remain, compensate or offset for risks and impacts to workers, Affected Communities, and the environment;
- To promote improved E&S performance through the effective use of management systems;
- To ensure that grievances from Affected Communities and external communications from other stakeholders are responded to and managed appropriately; and
- To promote and provide a means of adequate engagement with Affected Communities
  throughout the project lifecycle on issues that could potentially affect them and to ensure
  that the relevant E&S information is disclosed and communicated.

### Performance Standard 2 - Labour and Working Conditions

- To promote the fair treatment, non-discrimination, and equal opportunity of workers;
- To establish, maintain, and improve the worker-management relationship;
- To promote compliance with national employment and labour laws;
- To protect workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third-parties, and workers in the supply chain;
- To promote safe and healthy working conditions, and the health of workers; and
- To avoid the use of forced labour.

### Performance Standard 3 - Resource Efficiency and Pollution Prevention

- To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities;
- To promote more sustainable use of resources, including energy and water; and
- To reduce project-related greenhouse gas emissions.

### Performance Standard 4 - Community Health, Safety and Security

- To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project lifecycle from both routine and non-routine circumstances; and
- To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities.

### Performance Standard 5 - Land Acquisition and Involuntary Resettlement

- To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs;
- To avoid forced eviction;

To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by providing compensation for loss of assets at replacement cost, or ensure that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;

- To improve, or restore, the livelihood and standards of living of displaced persons; and
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

### Performance Standard 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

- To protect and conserve biodiversity;
- To maintain the benefits from ecosystem services; and
- To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.

### Performance Standard 7 – Indigenous Peoples

- To ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of Indigenous Peoples;
- To anticipate and avoid adverse impacts of projects on communities of Indigenous Peoples, or when avoidance is not possible, to minimize and/or compensate for such impacts;
- To promote sustainable development benefits and opportunities for Indigenous Peoples in a culturally appropriate manner;
- To establish and maintain an ongoing relationship based on Informed Consultation and Participation (ICP) with the Indigenous Peoples affected by a project throughout the project's life-cycle;
- To ensure the Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples when the circumstances described in this Performance Standard are present; and
- To respect and preserve the culture, knowledge, and practices of Indigenous Peoples.

### Performance Standard 8 - Cultural Heritage

- To protect cultural heritage from the adverse impacts of project activities and support its preservation; and
- To promote the equitable sharing of benefits from the use of cultural heritage.

### 3.2.2 WORLD BANK GROUP ENVIRONMENTAL HEALTH AND SAFETY GUIDELINES

The WBG EHS Guidelines apply their own set of standards for specific effluents, emissions and discharges. Application of the IFC PS requires that when host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are required to achieve whichever is the more stringent standard.

If less stringent levels or measures than those provided in the EHS Guidelines are appropriate in view of specific project circumstances, a full and detailed justification must be provided for any proposed alternatives through the environmental and social risks and impacts

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identification and assessment process. This justification must demonstrate that the choice for any alternate performance levels is consistent with the objectives of IFC PS 3.

The EHS Guidelines contain performance levels and guidance measures that are generally considered to be achievable by new facilities using existing technology at a reasonable cost.

The following WBG EHS Guidelines are applicable to the Project:

- General EHS Guidelines, 2007 (IFC, 2007); and
- General EHS Guidelines: Construction and Decommissioning, 2007 (IFC, 2007).

These Guidelines contain standards relating to<sup>2</sup>:

- Environment: air, energy, water conservation, solid waste management, wastewater discharges, hazardous materials management, noise and vibration, and contaminated land;
- Ambient Air Quality;
- · Occupational Health & Safety; and
- Community Health & Safety.

The General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines that provide guidance to users on EHS issues in specific industry sectors. Considering the nature of Project Anma, the following Industry Sector EHS Guidelines will be adapted by the Project:

- EHS Guidelines for Wind Energy (2015); and
- EHS Guidelines for Electric Power Transmission and Distribution (2007).

### 3.2.3 EQUATOR PRINCIPLES

The Equator Principles (EP) is an E&S risk management framework adopted by multiple global financial institutions for determining, assessing and managing E&S risk in projects; primarily to provide a minimum standard for due diligence to support responsible risk decision-making. These financial institutions are collectively referred to as Equator Principles Financing Institutions (EPFIs).

The EPs were developed by private-sector banks and launched in June 2003. They were first revised in July 2006 and the new revisions, known as EP4, took effect on the 1 October 2020, and is applied to all new project financings with project total capital costs of USD \$10 million or more and across all industry sectors and geographies.

The EPs are comprised of the following principles:

- Principle 1: Review and Categorisation. Categorise the project based on the magnitude
  of potential environmental and social risks and impacts with Category A resulting in
  potentially significant impacts, Category B limited impacts that can be mitigated and
  Category C minimal/no impacts;
- Principle 2: Environmental and Social Assessment. An Environmental and Social
  Assessment is required for all Category A and B projects, and include assessment of
  potential adverse Human Rights impacts and climate change risks as part of the
  Environmental and Social Assessment;

 $<sup>^{2}</sup>$  It is noted that a number of the World Bank Group EHS Guidelines have been revised and are currently undergoing review. For this Report, ERM adopts those that are enforce at the time of preparation of this report.

Principle 3: Applicable Environmental and Social Standards. The assessment process
to address compliance with relevant host country laws, regulations and permits that
pertain to environmental and social issues;

- Principle 4: Environmental and Social Management System and Equator Principles
  Action Plan. The plans will be prepared by the client to address issues raised in the
  Assessment process and incorporate actions required to comply with the applicable
  standards;
- Principle 5: Stakeholder Engagement. In order to conduct effective and meaningful consultation the SEP outlines consultation to be undertaken during the Environmental and Social Assessment process and beyond;
- Principle 6: Grievance Mechanism. The grievance mechanism is required to be developed and implemented to receive and facilitate resolution of stakeholders' concerns and grievances about the Project's environmental and social performance;
- Principle 7: Independent Review. A review of the assessment process is typically undertaken by a consultant acting on behalf of the lenders to assess the conformance against adopted international standards;
- Principle 8: Covenants. Developers should incorporate the covenants linked to environmental and social compliance. Covenants and provisions are included in the loan documentation related to environmental and social compliance;
- Principle 9: Independent Monitoring and Reporting. This process should be undertaken
  by an Independent Environmental and Social Consultant for those projects categorized as
  Category A and B; and
- Principle 10: Reporting and Transparency. The developer is required to disclose E&S
  impacts of the project and associated activities and to make accessible, at a minimum, a
  summary of the Environmental and Social Assessment documents.

Under the Principle 1, the Project is categorised to ensure that the required level of E&S assessment is commensurate with the nature, scale and stage of the project, and with the level of E&S risks and impacts.

### The categories are:

- **Category A**: Projects with potentially significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented;
- Category B: Projects with potentially limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and
- Category C: Projects with minimal or no adverse environmental and social risks and/or impacts.

It should be noted that the final project categorisation will be determined by the lenders upon the completion of their Environmental and Social Due Diligence (ESDD) as per the Principle 7 of EP4.

Under the Principle 2, all Category A, and as appropriate, Category B Projects, are required to conduct an assessment process to address the relevant E&S risks and impacts of the proposed Project. The applicable E&S standards of such assessment are defined under the Principle 3.

For Designated County, the applicable E&S standards are "relevant host country laws, regulations and permits that pertain to E&S issues". However, although South Korea is defined

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as Designated County, the Applicable Standards must be also considered as the Principle 3 states "The EPFI may, at its sole discretion, undertake additional due diligence against additional standards relevant to specific risks of the Project and apply additional requirements".

Principles 4 through Principles 10 apply to all Category A and, as appropriate, Category B Projects.

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### 4. APPROACH

This section provides the methodology/approach applied for the purposes of this SIA, and assessment criteria applied. To identify the salient social impacts issues, a four-step process has been employed, which are further detailed below.

### 4.1 STEP 1: SCOPING PROCESS

The scoping involves review of the Project documents, and information readily available in the public domain as well as the regulatory impact assessment studies mentioned in Section 1.3. Also, the Area of Influence (AoI) for SIA has been established based on gathered information and reviewed documents, and review of the social baseline. Refer to Section 5.1 for full details on the AoI.

Subsequently, all potential social impacts that may be caused by the Project has been identified, and for those impacts which may not be relevant to the Project has been scoped out during the scoping process, with rational for scoping out (refer to Section 5.3).

The scoping process allowed to under the preliminary assessment of potential social impacts, and to identify the potential PAP/communities within the AoI who may be adversely impacted by the Project activities.

### 4.2 STEP 2: SOCIAL BASELINE

This step involved information gathering with respect to social baseline/context at or around the Project site, and surroundings.

A range of information sources were used to develop the social baseline section, which included the relevant information from the public domain (e.g. statistical year book for city, district, township level and news articles etc.), Project information provided by AWC, and the regulatory impact assessments on social aspects (e.g. Regulatory EIA, Maritime Traffic Safety Assessment, Cultural Heritage Survey, Fishery Damage Impact Assessment (FDIA), and Radio Impact Assessment etc.) with focus on the respective baseline section (refer to Section 1.3).

A social baseline also seeks to capture information pertaining to community values and how people and how much the Project may have impact on what these people values. This includes consideration of:

- The key features of the Project AoI/or the broader landscape the people value;
- How these features influence people's way of life, health or well-being;
- How the Project might affect these features;
- How the Project could be modified to enhance these features and how they affect people's well-being; and
- How the Project might be designed to avoid and minimize any adverse impacts.

### 4.3 STEP 3: IDENTIFICATION OF THE POTENTIAL RECEPTORS

The IFC Stakeholder Engagement Handbook defines stakeholders as: "... persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively."

Stakeholders may include locally affected communities or individuals and their formal and informal representatives, national or local government authorities, politicians or other leaders,

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civil society organizations and groups with special interests, or other businesses. Not all stakeholders will experience potential social impacts from a project; those who are affected are referred to as receptors.

Some receptors may also be categorised as being part of a vulnerable group. The IFC PS defines vulnerability as follows, "The vulnerable status may stem from an individual's or group's race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. The client should also consider factors such as gender, age, ethnicity, culture, literacy, sickness, physical or mental disability, poverty or economic disadvantage, and dependence on unique natural resources."

The identification of the social receptors involved review of multiple sources of information including research from the public domain, and by referring to the receptors identified during the regulatory impact assessments (e.g. Regulatory EIA, Maritime Traffic Safety Assessment, Underwater Cultural Heritage Survey, and Radio Impact Assessment etc.), and the voluntary impact assessment which is the Fishery Damage Impact Assessment (FDIA).

Refer to Section 5.2 of this SIA for further details on potential receptors who have been considered during Step 3. Also, refer to the Project specific SEP for full details on the stakeholder identified by the Project.

### 4.4 STEP 4: IMPACT ASSESSMENT

The initial task in this step is to "refresh" the identification of potential interactions between the Project and the identified social receptors. Prediction of impacts is essentially an objective exercise to determine what could potentially happen as a result of the Project's interaction and its associated activities with the social receptors.

Once the prediction of potential impacts is complete, each potential impact is described in terms of its various relevant characteristics (e.g., type, scale, duration, frequency, extent). The purposes of the assessment are:

- To identify and evaluate the characteristics, magnitude and significance of potential impacts on identified social receptors and resources;
- To develop and describe mitigation measures to be taken in minimizing any potential adverse effects and enhance potential benefits; and
- To report the significance of the residual impacts that remain following mitigation.

The impact characteristic terminology to be used and summarized as follow.

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TABLE 4-1 DEFINITION OF MAGNITUDE

Magnitude	Extent	Duration	Scale	Frequency
level	The geographic 'reach' of the impact	The timeframe over which the impact will be experienced	The degree of change experienced as a result of the impact	The constancy or periodicity of the impact
Negligible	Household	Temporary	Negligible Change	Rare
Minor	Myeon level	Short-term	Perceptible Change	Occasional
Moderate	County level	Long-term	Clearly evident change	Often
Major	South Korea	Permanent	Large or Stepwise change	Constant

Once impact characteristics are defined, the next step in the social impact assessment phase is to assign each potential impact a "magnitude." Magnitude essentially describes the intensity of the change that is predicted to occur in the resource/receptor as a result of the potential impact.

The designations of magnitude are presented under the Table 4-2.

TABLE 4-2 MAGNITUDE LEVELS

Magnitude Level	Meaning
Negligible	The adverse change that occurs remain within the range commonly experienced by receptors.
Minor	There is a perceptible difference or adverse change from the baseline conditions. The impact is local- i.e. affects local communities and local businesses. It occurs over a short period of time, and it is rare.
Moderate	The difference or adverse change from the baseline conditions is clearly evident. The impact is experienced by the receptors in the Project AoI over a long period of time.
Major	There is a large adverse change from the baseline conditions. The impact is experienced through the Project AoI and it is also persistent.
Positive	There is a positive change from the baseline condition.

Once the impact magnitude has been determined, the likelihood of the impact or the event from occurring is being evaluated. Research in public domain, industrial good practice materials/information, and Project management's experience as well as E&S Advisers' experiences in the similar nature/scale of offshore wind farm development has been used at this stage. The definition of the likelihood has been defined under Table 4-3.

TABLE 4-3 DEFINITION OF LIKELIHOOD

Likelihood Level	Meaning	
Low	The event is unlikely but may occur at some time during normal operating conditions.	
Medium The event is likely to occur at some time during normal operating conditions.		

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Likelihood Level	Meaning	
High The event will occur during normal operating conditions (i.e., in essentially inevitable).		

Lastly, the magnitude and likelihood of the impact are looked at in combination to evaluate whether an impact is, or is not, significant and if so its degree of significance (defined in terms of Positive, Negligible, Low, Medium or High). Refer to Table 4-4 for the definition.

TABLE 4-4 SOCIAL IMPACT SIGNIFICANCE MATRIX

		Likelihood		
		Low	Medium	High
	Negligible	Negligible	Negligible	Minor
Magnitude	Minor	Negligible	Minor	Moderate
	Moderate	Minor	Moderate	Major
	Major	Moderate	Major	Major
	Positive			

### 4.5 FIELD-BASED SOCIAL BASELINE DATA COLLECTION

To complement literature-based assessments and regulatory impact studies, IA Partners, a member of the INOGEN Alliance, undertook extensive primary data collection in May and June 2025. This fieldwork was conducted in response to comments from the Lender's Environmental and Social Advisor (LESA), which emphasized the need for more robust, representative, and inclusive baseline data—particularly in relation to vulnerable groups and directly affected communities.

The objective was to strengthen the reliability of the Social Impact Assessment (SIA) by incorporating both qualitative and quantitative insights, consistent with the requirements of IFC Performance Standard 1 and the Equator Principles 4 (EP4). The field activities consisted of two complementary components.

### 4.5.1 QUALITATIVE SOCIAL BASELINE SURVEY

A series of in-depth Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) were conducted across defined Areas of Influence (AoI), including Anma-do, Songi-do, Nakwol-do (Offshore AoI), and Songam-ri (Onshore AoI). Broader areas within Yeonggwang-gun were also covered to capture secondary socioeconomic effects.

The purpose of this activity was to ensure that the baseline dataset adequately captures diverse stakeholder perspectives, with particular attention to the inclusion of elderly individuals, women, low-income households, and foreign migrant labours.

A total of 34 interviews were conducted, comprising 21 Focus Group Discussions (FGDs) and 13 Key Informant Interviews (KIIs). Semi-structured questionnaires were developed and tailored to the specific characteristics of each stakeholder group. The interviews covered a

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range of topics including livelihood structures, awareness of the project, perceived risks and concerns, expectations regarding compensation, accessibility of grievance mechanisms, and factors related to social vulnerability.

A wide range of stakeholder groups were engaged during the Social Baseline Survey to ensure inclusive representation and capture diverse community perspectives. These included:

- Fisheries Associations (e.g., Anma-do, Duuri, Changwoo, Nakwol);
- Village Committees and Local Residents;
- Women's Associations and Senior Citizen Centres;
- Foreign Migrant Workers (Indonesia, Vietnam);
- · Landowners and Contract Farmers;
- Foreign migrant workers;
- Social Organizations (e.g., Saemaeul Association, Multicultural Family Centre); and
- Local Government, Health Centres, and Fisheries Cooperatives

### 4.5.2 STRUCTURED HOUSEHOLD SURVEY

To complement the qualitative insights and strengthen the statistical representativeness of the social baseline, a Structured Household Survey was conducted in the two directly affected communities: Anma-do (offshore WTG area) and Songam-ri (onshore transmission and substation area).

The purpose of this activity was to quantify socioeconomic indicators and validate the qualitative findings with statistical robustness. Sampling method was a stratified random sampling of total households. Sample size is as below:

- Anma-do: 18 out of 90 households surveyed (20%); and
- Songam-ri: 8 out of 37 households surveyed (21.6%)

Key survey contents are

- · Household demographics and composition;
- Primary income sources and livelihood activities (fishing, farming, pensions, etc.);
- Vulnerability identification (elderly-only households, female heads of households, foreign workers);
- Awareness and perceptions of the offshore wind project; and
- Anticipated impacts and benefit-sharing expectations

### 4.5.3 INTEGRATION WITH SIA AND OTHER PLANNING DOCUMENTS

Findings from both components directly informed the updated social baseline (Chapter 6) and social impact assessment (Chapter 7). They also supported the refinement of the Stakeholder Engagement Plan (SEP) and Livelihood Restoration Plan (LRP), ensuring that project planning is grounded in representative, participatory, and inclusive data.

Survey instruments and interview guides used for these activities are provided in the annexes of the Social Baseline Survey and Structured Household Survey reports.

### 5. SCOPING

This Section summaries the outcome of the scoping process. The scoping process included the establishment of AoI for the SIA and identification of potential receptors followed by selection of scoped out aspects.

### 5.1 AREA OF INFLUENCE

The social AoI is the area where the potential adverse impacts are likely to occur. The AoI of the Project has been established considering the nature and scale of the proposed business activities during the construction and operation phase of the Project, and the following aspects were considered:

- Scale and nature of potential social and community health impacts;
- Stakeholders and communities who may be impacted by the potential social aspects;
- Relevant social, cultural, demographic trends and/or other change processes; and
- History of the Project, including stakeholder insights gathered through a review of historical Project information.

The respective social AoI has been provided to offshore area, and onshore area. Onshore area has been further divided into direct onshore AoI (representing the areas that are expected to be directly affected by the Project activities), and indirect onshore AoI (representing the areas that may not be directly affected by the Project activities, however, expected to be indirectly affected by the Project).

Table 5-1 outlines the potential impacts of the Project considered during the establishment of the AoI. The table provides rationale for Onshore Direct AoI, Onshore Indirect AoI, and Offshore AoI, respectively.

TABLE 5-1 RATIONALE FOR ESTABLISHMENT OF THE AOI

Assessed Aspects	Source of Impacts	Note		
Onshore Direct AoI				
Community	Onshore Traffic	The impact to the communities from the construction of the Project onshore components will be limited to the approximate distance of 1.5 km long onshore export cable, which falls within Songam-ri (i.e. the Onshore Direct AoI, refer to Figure 5-2). Therefore, impact on communities from the onshore traffic has been defined as the Directly Onshore Impact, and Songam-ri has been defined as the Onshore Direct AoI.		
	Onshore Noise	The Regulatory EIA has defined the AoI for noise as 500m along the onshore export cable, which mostly falls within Songam-ri (i.e. the Onshore Direct AoI, refer to Figure 5-2). Therefore, impact on communities from the onshore noise has been defined as the Directly Onshore Impact, and Songam-ri has been defined as the Onshore Direct AoI.		

Assessed Aspects	Source of Impacts	Note
	Onshore Air Quality	The Regulatory EIA has defined the AoI for onshore air emission as 500m along the onshore export cable, which mostly falls within Songam-ri (i.e. the Onshore Direct AoI, refer to Figure 5-2). Therefore, impact on communities from the onshore air emission has been defined as the Directly Onshore Impact, and Songam-ri has been defined as the Onshore Direct AoI.
	Community Health	The Project construction activities that may potentially impact the health and safety of the Project will occur along the approximate distance of 1.5 km long onshore export cable, which falls within Songam-ri (i.e. the Onshore Direct AoI, refer to Figure 5-2). Therefore, impact on the community's health from the Project activities has been defined as the Directly Onshore Impact, and, Songam-ri has been defined as the Onshore Direct AoI.
	Security	All Project components where security activities will occur are situated within Songam-ri (i.e. the Onshore Direct AoI, refer to Figure 5-2). Therefore, impact on communities from the security activities of the Project has been defined as the Directly Onshore Impact, and Songam-ri has been defined as the Onshore Direct AoI.
Vulnerable Community	Elderly	The impacts from the Project activities (i.e. onshore traffic, noise and/or air emission etc.) to the vulnerable communities are expected to be similar to the impact to
	Women  Physically Challenged Individuals	communities, and are expected to be experienced are the areas 500m from the onshore components of the project, which mostly falls within Songam-ri. Therefore, impact to the vulnerable communities from the Project activities has been defined as the Directly Onshore Impact, and
		Songam-ri has been defined as the Onshore Direct AoI.
Onshore Indirect A Workers	Accommodation	It is currently planned that the workers will use lodging facilities within Yeonggwang-gun for accommodation. Therefore, impact to the workers by the accommodations has been defined as the Indirect Onshore Impact, and Yeonggwang-gun has been defined as the Onshore Indirect AoI (refer to Figure 5-3).
Community	Accommodation	It is currently planned that the workers will use lodging facilities within Yeonggwang-gun for accommodation. Therefore, potential impacts arising from the location and operation of these accommodations have been defined as Indirect Onshore Impacts not only to the workers but also to the surrounding communities, in line with IFC Performance Standard 4. These may include increased pressure on local infrastructure and services, social tension from labor influx, and risks of community-level safety issues if worker welfare conditions are not adequately managed. Accordingly, Yeonggwang-gun has been defined as the Onshore Indirect AoI to capture both

Note

Impacts	Note
	worker and community-related indirect impacts (refer to Figure 5-3).
Socio-economic Impacts	It is currently planned that the Project will hire local resident (i.e. residents of Yeonggwang-gun), where possible (refer to Table 7-18). Therefore, Yeonggwang-gun has been defined as the Onshore Indirect AoI (refer to Figure 5-3).
Offshore Traffic	The Maritime Traffic Safety Assessment (MTSA) required the Project to distance the WTG areas at least 2.4 km from the vessel route. However, the SIA defined the AoI used under the Regulatory EIA as a conservative manner (i.e. 4km from the boundary of the WTG Area, and 500m along the offshore export cable). The Offshore AoI for marine traffic by the Project is therefore, 4km from the boundary of the WTG Area, and 500m along the offshore export cable.
Fisheries	While exact AoI by the Project will ultimately be confirmed through the ongoing Fisheries Damage Investigation (FDI), the current Offshore AoI has been defined in a conservative manner based on the boundaries used in the Regulatory EIA. Specifically, the AoI encompasses a 4 km buffer from the boundary of the WTG Area and a 500 m corridor along the offshore export cable (refer to Figure 5-1).
	Although the actual areas of fishery access restriction may be smaller than this EIA-defined zone, this broader AoI has been maintained to ensure that all potentially affected environmental and socio-economic receptors are appropriately captured at this stage.
	Should the FDI results justify revision of the AoI, either in spatial extent or distribution, the Project will revisit the associated impact assessments and mitigation measures accordingly.
	Socio-economic Impacts  Offshore Traffic

### 5.1.1 OFFSHORE AREA

Assessed Aspects Source of

Project components such as WTG, offshore substation, and offshore export cable route, and the associated assessed aspects have been considered during the AoI establishment for offshore area. As mentioned in Table 5-1, the Social AoI for the Offshore Area has been conservatively defined as extending 4 km from the WTG Area boundary (including the offshore substation) and 500 m along the offshore export cable (refer to Figure 5-1), based on the Regulatory EIA. While the exact areas of access restriction for fisheries are likely to be smaller and will be determined through the Fishery Damage Investigation (FDI), this broader AoI was used for the purpose of the Social Impact Assessment to capture all potentially affected communities and minimize underestimation of social risk.

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SCOPING ESIA FOR PROJECT ANMA

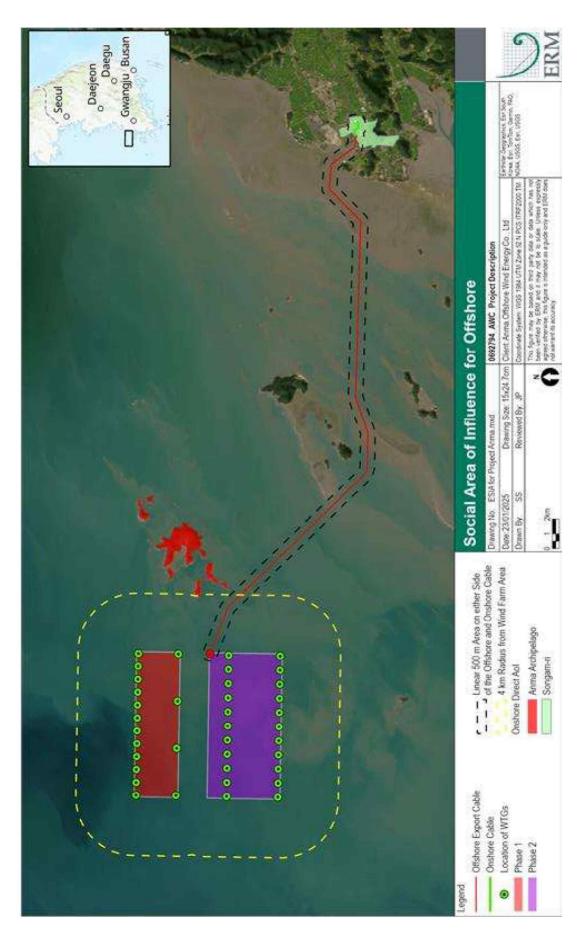


FIGURE 5-1 SOCIAL AOI FOR OFFSHORE AREA

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### 5.1.2 ONSHORE AREA

The Project components such as onshore export cable and onshore substation, and the associated assessed aspects have been considered in defining the AoI for onshore area.

The onshore AoI has been further divided into direct onshore AoI and indirect onshore AoI. The direct onshore AoI is representing the areas that are expected to be directly affected by the Project activities, i.e. Direct Onshore AoI, and the Indirect Onshore AoI is representing the areas that may not be directly affected by the Project activities, however, expected to be indirectly affected by the Project.

### 5.1.2.1 ONSHORE DIRECT AREA OF INFLUENCE

The Onshore Direct Area AoI has been established considering the associated impacts expected from the onshore components of the Project (refer to Table 5-1), which are expected to be limited to Songam-ri.

An existing road in Songam-ri (parcel 313-1) will be widened to a 6-meter width and extended to a total length of 476 meters to provide access to the onshore substation site. The road improvement will partially utilize national public land (3,679.8 m²) and is expected to generate localized and temporary impacts during the construction phase. As it builds upon an existing route, the scale of impact is expected to be limited. Nevertheless, the alignment of the road and surrounding affected area shall be included within the Onshore Direct AoI.

Additionally, although none of the islands (except for Hoeng-do) falls within the 4km of area of impact defined under the Regulatory EIA, AWC, as a good industrial practice, decided to include the five islands close to the WTG Area as component of the direct onshore AoI. The five islands include Anma-do, Juk-do, Seokman-do, Hoeng-do, and O-do (hereinafter refer to as the "Anma Archipelago"). The communities at Anma Archipelago may be directly impacted by the WTG Area (e.g. by noise or vessel traffic - commute to/from the land etc.), and therefore, have been included as part of the Direct Onshore AoI as a good industrial practice and in compliance with the IFC Guidelines.

### 5.1.2.2 ONSHORE INDIRECT AREA OF INFLUENCE

The Project is expected to some indirect impacts such as create jobs or draw human resources within the regions around the Project. Entire Yeonggwang-gun (refer to Figure 5-3) has been defined as the Onshore Indirect AoI, considering the scale and nature of the Project.

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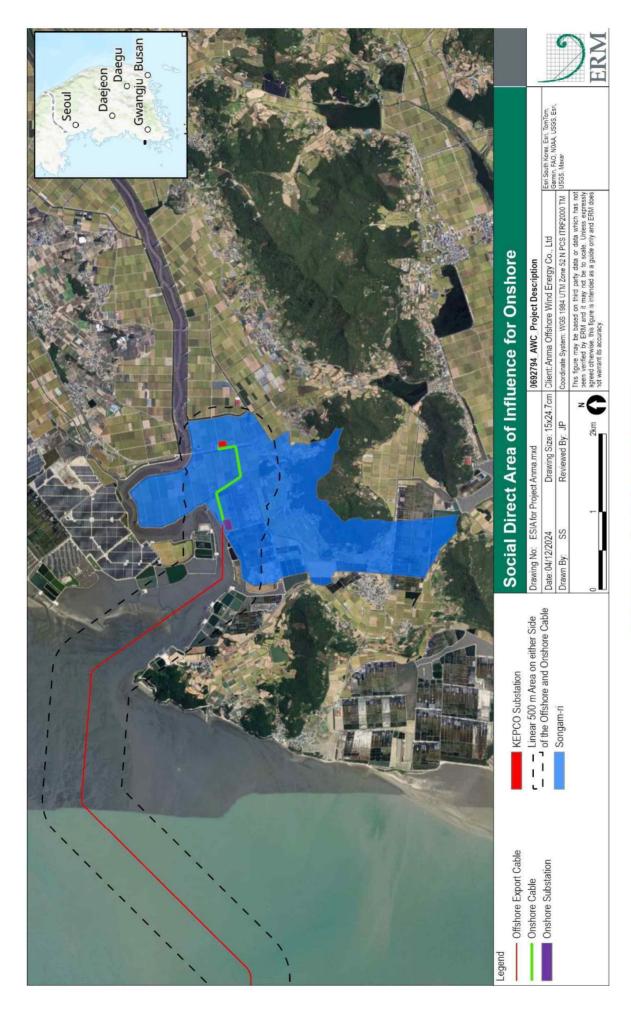
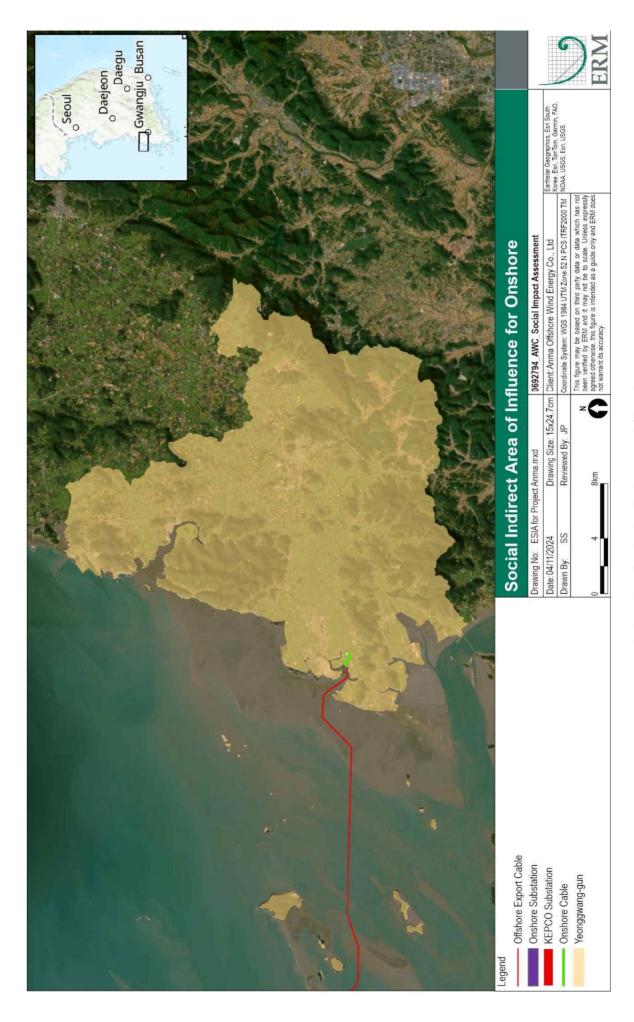


FIGURE 5-2 ONSHORE DIRECT AOI

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ONSHORE INDIRECT AOI FIGURE 5-3

### 5.2 POTENTIAL RECEPTORS

It was noted during the review of the social baseline of the surrounding areas of the Project (refer to Section 6) that the following social receptors within the AoI may be potentially be adversely impacted by the Project activities:

- Fisheries;
- · Construction Workers;
- Communities at/around the Project onshore components; and
- Vulnerable Groups.

Impacts on above listed social receptors are assessed in section 7.

# 5.3 SCOPE OF SOCIAL IMPACT ASSESSMENT: JUSTIFICATION FOR INCLUSION AND EXCLUSION

The Project has assessed the relevance of various social receptors. The following sections summarize those considered to have no expected impacts (scoped out), and those retained for further monitoring (scoped in):

- Impacts to the indigenous people: It is generally regarded that in South Korea, there are no officially recognised indigenous peoples or populations, and is considered ethnically homogeneous with the majority of its population identifying as Korean. The legal and social frameworks in South Korea also do not formally recognize any indigenous groups, as well as the international organisations as well (e.g. Minority Rights Group³). Therefore, the SIA will scope out the impact assessment on indigenous people. It was confirmed during the phone interview with the Officer in charge of the Yearbook of the General Affairs Division of Yeonggwang-gun Office that there is no indigenous population living in onshore AoI who would meet the description of the IFC PS7.
- Impacts on cultural heritage values: The initial and 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Amendment of the Cultural Heritage Survey for the Project all concluded that no cultural heritage was found within the Project site or surroundings during any of the surveys. All survey reports conclude that the construction/operation activities of the Project will not result in adverse impacts to cultural heritage values. Additionally, from the registered National Intangible Cultural Heritage<sup>4</sup>, no heritages were found that are relevant to Project sites. Therefore, the SIA will scope out.
- Impact on the landowners: The Project has secured all the parcels that are required for the onshore components of the Project. AWC reports that all land transactions were conducted on a willing buyer-willing seller basis. Although the prevailing market value was used as a reference point, actual compensation amounts were significantly higher in practice. These amounts reflected international standards, taking into account economic displacement, potential inconvenience, and the specific requests of landowners. Due to confidentiality considerations, detailed compensation figures are not disclosed in this document, but AWC confirms that the same process and principles will be applied in the event of any future land purchases. In South Korea, power generation projects generally fall into two regulatory frameworks: those led by the private sector under the Electric

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<sup>&</sup>lt;sup>3</sup> https://minorityrights.org/country/south-korea

<sup>4</sup> https://www.heritage.go.kr/main/?v=1731632885411

Utility Act, and state-led developments under the Electric Power Source Development Promotion Act. The latter may permit physical displacement under specific conditions. However, AWC's development is based on the Electric Utility Act, which does not provide the legal basis for expropriation or involuntary resettlement. Therefore, all land transactions were voluntary in nature. Although the land acquisition process has been completed and no additional land-related impacts are anticipated, the landowners are still considered an affected group under IFC Performance Standard 5 due to the economic displacement that has occurred. As such, they are included in the scope of this SIA. The magnitude of impact is considered limited, given the use of negotiated settlements and absence of formal grievances. As a precautionary measure, the grievance mechanism remains available for landowners to raise any concerns or inquiries related to the acquisition process.

- Involuntary resettlement: The Project has not involved any physical displacement or involuntary resettlement in connection with the construction of the onshore export cable between the AWC Onshore Substation (ONS) and the Seoyeonggwang/West Yeonggwang KEPCO Substation. AWC has secured all required land parcels for the onshore components through voluntary transactions. However, in line with IFC Performance Standard 5, potential risks of involuntary resettlement—including economic displacement and unanticipated grievances—have been acknowledged and considered within the scope of this SIA. Therefore, this SIA includes involuntary resettlement within its scope to ensure appropriate consideration of any related impacts, even in the absence of physical relocation.
- Impacts on offshore area passenger/cruise ship: Maritime Traffic Safety Assessment dated August 2023 prepared by Mokpo National Maritime University has undertaken baseline survey on wider Mokpo region and identified a total of 25 sea routes used by passenger ships/cruise ships that are used by a total of 19 companies. Of the 25 sea routes, the relevant route to the Project is the 63km "Gyema Anma" Route operated by a passenger ship called Sumsarang 16<sup>5</sup> that is owned by Haekwang Transport. The ship can carry maximum of 120 people and is a 187 G/T, traveling 63km that uses Gyema Port as the home port and called on Hwangdo, Daesukman-do and Songi-do. To investigate the maritime traffic flow in the target area, 38 days of data were analysed, including GICOMS data for seven consecutive days in June, October and December 2018, and 2019 of March with 2022 January as well as three days of on-sit surveys. The analysis categorized vessels navigating the waters near the target area by date, time, type, tonnage and speed with the results are summarized in Figure 5-4. The assessment reports concluded that the Project will not result in significant impact on any of the passenger/cruise ship operation, and therefore, impacts to passenger/cruise ship have been scoped out from the SIA.
- Impacts on illegal/informal settlers/occupier of the land: While South Korea maintains a robust land tenure system and strict enforcement of land use regulations under laws such as the Real Estate Registration Act, the National Land Planning and Utilisation Act, and the Farmland Act, IFC Performance Standard 1 requires that all persons potentially affected by the Project—regardless of their legal status—be identified and considered. During the preparation of this SIA, phone interviews with local government officials (Yeonggwang-gun General Affairs Division) and consultations with the Songam-ri

<sup>5</sup> 섬사랑 **16** 호운항관리규정.pdf

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community representative did not reveal the presence of any informal or illegal settlers within the Onshore Area of Influence (AoI). However, it is recognized that such groups may prefer not to disclose their presence due to legal sensitivities, and anecdotal or third-party reports were not available to independently confirm their absence. In line with IFC guidance, and acknowledging the difficulty of confirming the non-existence of informal groups, the Project has taken a precautionary approach and included informal/illegal settlers as a potential group within the SIA. Based on current findings, impacts on such groups—if present—are expected to be limited to none, due to the absence of physical displacement, the voluntary nature of land acquisition, and the established regulatory framework. Nevertheless, the Project has committed to maintaining an accessible, multichannel grievance mechanism for all members of the public, including informal or potentially marginalized groups. If any such persons believe they are adversely affected by the Project, they have the right to raise grievances and seek redress. The location of the Project Office and dissemination of grievance channels have been designed to ensure inclusivity and confidentiality.

- Impacts on illegal fishers within the WTG Area: South Korea has strict regulations on fishing activities. The Fisheries Act regulates fishing operations within public water, stipulating that all commercial fishers to obtain licenses, and it also sets quotas, seasons, and fishing zones to prevent overfishing and illegal activities. Furthermore, Fishing Vessel Act enforces strict vessel registration and monitoring to ensure compliance with legal fishing activities, making it difficult for illegal fishing vessels to operate unnoticed. Illegal fishing activities by Chinese vessels known to occur at some part of the West Sea6, however, these events occur at the boarder of the Exclusive Economic Zone. Considering that the WTG Area of the Project is approximately 185km east from the nearest EEZ boarder, it is highly unlikely that illegal Chinese fishing vessels be encountered within the WTG Area. It is extremely difficult to operate illegal fishing boats/vessels as the local fishing ports are managed by the local authority, and all the users of such fishing ports are members of National Federation of Fisheries Cooperatives, and even if one managed to operate illegal fishing boat, one will struggle to sell the illegally caught fishes as the market or the distribution network is also strongly controlled/managed by the National Federation of Fisheries Cooperatives. Additionally, the licenses and permits are monitored and regulated by port authorities and the coastal guard. As illegal fishing in South Korea is highly unlikely to occur, consideration of adverse impact to livelihood of illegal fishers has been scoped out from the SIA.
- Impacts on the fishing boat crews: Fishing boat crews working under Permitted Fisheries may be indirectly affected by the Project. While the regulatory Fishery Damage Investigation (FDI) provides compensation only to permit holders, IFC Performance Standard 5 recommends that all individuals whose livelihoods may be impacted—regardless of employment status or legal standing—be given appropriate consideration. In the Project context, fishing crews are commonly composed of family members or foreign migrant workers who are assigned through registered labor agencies. If access to the Wind Turbine Generator (WTG) Area becomes restricted during construction and operation, some crews may need to adjust fishing routes or operate in less favorable zones. This could result in increased travel time or operational costs, indirectly affecting crew incomes.

<sup>6</sup> Yoon orders firm response to illegal fishing by Chinese vessels | Yonhap News Agency

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Although these crew members who are formally employed under recognized labor contracts, including foreign nationals, are protected under the Seafarers Act, which provides safeguards such as employment contracts and compensation for termination due to unavoidable causes, the Project recognizes that such legal provisions may not fully address all forms of economic disruption. Therefore, fishing boat crews have been scoped into this SIA as a group potentially experiencing indirect livelihood impacts. AWC will explore livelihood restoration support, such as employment referral, vocational services, or other appropriate assistance, as part of the LRP in line with IFC Performance Standard 5.

- Impacts on the business owners: It should be noted that all the areas around the landfall, and the onshore component of the Project are defined either as the Agricultural Production Control Area (APCA) or the Agricultural and Forestry Area (AFA) stipulated under the National Land Planning and Utilisation Act. The Annex 19 of the act defines buildings allowed to be constructed in the APCA, and such buildings/structures do not include any commercial structures (i.e. no business owners or stores/shops etc.). These areas can only be used for agricultural purposes (i.e. no business owners or stores/shops etc.) Appendix C provides image captured along the onshore export cable route, and it should be noted that, no commercial buildings or operations were observed in the area regardless of legal status, and only observed structures were warehouses for farmland. The land parcels for the onshore substation, access road, and onshore export cable route were unoccupied, and according to Section 5.1 of the LRP report, these parcels have already been acquired or leased for the Project. Additionally, there are a few small-scale solar farms near the area, but these solar panels operate autonomously, and their cable lines do not intersect with the Project's components, resulting no adverse impact from the Project activities. Given that no commercial buildings or operations exist within the APCA and AFA, and no impacts are anticipated to the small-scale solar farms, and the Project is not expected to affect any business owners as none were identified. Therefore, the livelihood impacts on business owners will be scoped out from the SIA.
- Economically Vulnerable Individuals: According to an interview with the Nakwol Youth Association and the Anma Youth Association (Refer to 6.5.4), it was reported that many basic livelihood security recipients in Yeomsan-myeon and Nakwol-myeon are currently unemployed and actively seeking work. While the Project is not anticipated to create direct negative impacts on this group, and may in fact provide employment and regional development benefits, these communities are located within the Project's AoI. In accordance with IFC Performance Standard 1, all affected groups, regardless of whether impacts are anticipated to be positive or negative, must be included in the scope of the SIA. As such, economically vulnerable individuals have been scoped into this assessment. Their exposure to risks or opportunities resulting from the Project will be further evaluated, and appropriate measures will be considered to ensure that potential benefits are accessible to them, while avoiding exclusion or unintended harm.
- Foreign Labour within the Direct AoI: As noted in Section 6.3.2, 16 foreigners reside in Nakwol-myeon and 30 in Yeomsan-myeon within the Direct AoI. Foreign workers in South Korea often enter with an E-9 visa, which is a non-professional employment permit issued for sectors such as fishery, manufacturing, construction, and agriculture. Holders of this visa are permitted to engage in basic economic activities but are not allowed to bring family members. While the Project is not expected to impact farmland, it is recognized that the construction phase may involve foreign contract workers, whose labor conditions are

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addressed separately in the SCMP. Although their presence may be temporary, such workers may be subject to unique vulnerabilities, including limited access to services, language barriers, and social isolation. Accordingly, foreign labor has been included within the scope of this SIA. Based on the information available to date, no disproportionate impacts are expected. While no disproportionate impacts are currently anticipated, the Project acknowledges that foreign workers may be present during construction through subcontractors. In line with IFC Performance Standards 2 and 4, the Project will ensure that EPC contractors are responsible for managing foreign labours in accordance with applicable labor laws and safety standards. If any issues arise regarding working conditions, community interaction, or vulnerability, the Project remains open to coordinating with contractors and relevant authorities to address them as appropriate. No direct livelihood restoration measures are currently planned in the LRP, but this group is scoped into the SIA to ensure visibility and inclusiveness should additional needs be identified in the future. Additionally, previous and ongoing engagement efforts with government agencies and other stakeholders (refer to Section 1.3) will be leveraged to ensure that any concerns regarding foreign labor, including working conditions and community interactions, are appropriately addressed.

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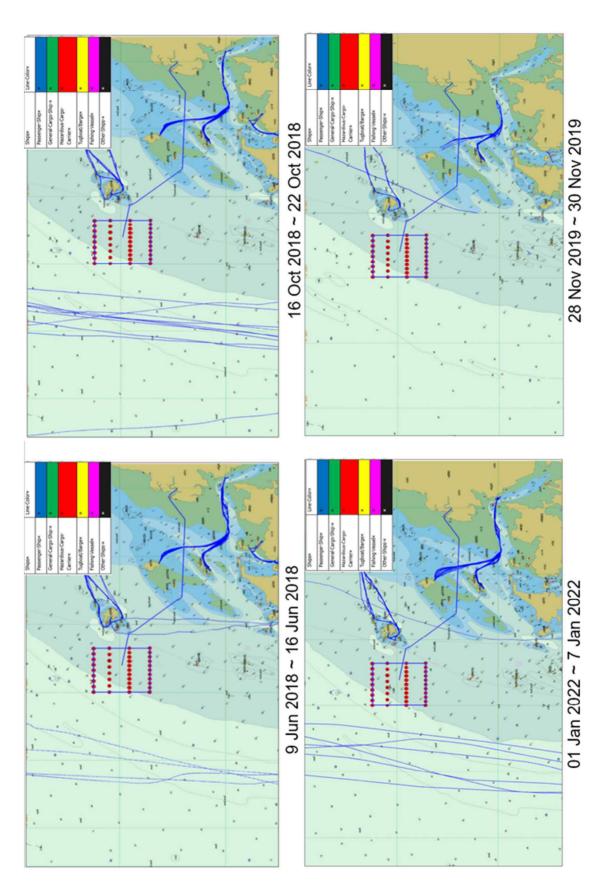


FIGURE 5-4 IDENTIFIED PASSENGER SHIPS DURING THE MARITIME TRAFFIC SAFETY ASSESSMENT

# 6. SOCIAL BASELINE

This section provides the snapshot of the social context of the surrounding areas of the Project, with focus on the offshore AoI, onshore direct AoI, and onshore indirect AoI. The topics covered under this social baseline section includes:

- Demography;
- · Fisheries;
- Labour Status;
- · Infrastructure; and
- Vulnerable Groups.

The below Table 6-1 indicates the source used in the social baseline and the data reflected up to date.

TABLE 6-1 REFLECTION OF THE DATA BY YEAR FROM THE SOURCE

Source	Data Reflection	Title of the Tables	
Source: Yeonggwang-gun Statistical Yearbook, 2023	2022	<ul> <li>Table 6-2: Demographic information of Yeonggwang-gun in 2023</li> <li>Table 6-3: Demographic information of Nakwol, Yeomsan-myeon by gender in 2023</li> <li>Table 6-4: Demographic information of Yeonggwang-gun (including Nakwol-myeon and Yeomsan-myeon), 2023</li> <li>Table 6-5: Age distribution of Yeonggwang-gun population in 2023</li> <li>Table 6-6: Age distribution of Nakwol/Yeomsan-myeon, 2023</li> <li>Table 6-7: Persons in education in Yeonggwang-gun 2023</li> <li>Table 6-12: Number of establishment workers by industry in Yeomsan-myeon, 2023</li> <li>Table 6-13: Number of establishment workers by industry, in Nakwol-myeon 2023</li> <li>Table 6-13: Number of establishment workers by industry, in Nakwol-myeon 2023</li> <li>Table 6-20: Public health centers within onshore AoI</li> <li>Table 6-21: Total catches in Yeonggwang-gun, 2023</li> <li>Table 6-24: Fishing vessels in Yeonggwang-gun 2023</li> <li>Table 6-24: Fishing vessels in Yeonggwang-gun 2023</li> <li>Table 6-26: Workers by employment type in Yeonggwang-gun in 2023</li> <li>Table 6-28: Economically inactive population in Yeonggwang-gun in 2023</li> <li>Table 6-29: Foreign population in Yeomsan-myeon and Nakwol-myeon in 2023</li> <li>Table 6-31: Registered disabled persons in Yeonggwang-gun in 2022</li> <li>Table 6-33: Welfare facility for elderly in Yeonggwang-gun in 2023</li> <li>Table 6-34: Female population in Yeonggwang-gun in 2023</li> </ul>	

Source	Data Reflection	Title of the Tables
Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023	-	Table 6-8: Annual average household size in Yeonggwang-gun, 2024
Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023	-	Table 6-9: Annual average household size in Nakwol-myeon and Yeomsan-myeon
Source: Jeollanam-do Registration Statistics, 2023	2022	Table 6-10: Employment in Jeollanam-do by industry in 2022
Source: Korea Statistical Information Service, 2024	2024	Table 6-11: Employment in Yeonggwang-gun by industry, 2024
Source: Jeollanam-do Social Statistical Survey, 2023	2022	Table 6-14: Employment in Jeollanam-do according to educational attainment, 2022
Source: Korean Statistical Information Service 2022	2022	Table 6-15: Average household monthly income in Yeonggwang-gun 2022
Source: Jeollanam-do Registration Statistics, 2023	2023	Table 6-16: Yearly household expenditure
Source: Korean Statistical Information Service	2023	Table 6-17: Savings and debts for Jeollanam-do
Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023	-	Table 6-18: Annual average household size in Yeonggwang-gun
Source: Yeonggwang-gun Statistical Year Book, 2022; Yeonggwang-gun Social Statistical Survey, 2022, and Korean Statistical Information Service; National Statistical Survey 2022.		Table 6-19: Summary of socio-economic characteristics

Source	Data Reflection	Title of the Tables
Source: Suhyup Report on Fishing Village Societies Survey 2023	2022	Table 6-22: Fishers association in 2023
Source: Yeonggwang-gun Statistical Yearbook 2022	2021	Table 6-25: Summary of fisheries data
Source: Foreign population (resident registered) from Jeollanam-do government statistic website (dated June, 2024) and the Economically Active population sourced from KOSIS)	-	Table 6-30: Economically active foreign population in Jeollanam-do, in 2023
Source: Yeonggwang- gun_Registration Status of Persons with Disabilities 2018 <sup>7</sup>	2018	Table 6-31: Registered disabled persons in Nakwol/Yeomsan-myeon
Source: Yeonggwang-gun Government, 2024	2022	Table 6-35: Number of violence against women counselling requested in Yeonggwang-gun, 2022

### 6.1 DEMOGRAPHIC

## 6.1.1 POPULATION

According to the Yeonggwang-gun Statistical Yearbook 2023, there are 27,549 households in Yeonggwang-gun (i.e. the populations within the onshore indirect AoI) and a total number of 53,182 inhabitants, of which 50.22% are male and 49.78% are female. Demographic information in Table 6-2 also included the foreign population. The demographic information of Yeomsan-myeon and Nakwol-myeon is indicated in the Table 6-3.

Among the total population of Nakwol-myeon and Yeomsan-myeon each with 614 and 3,885 inhabitants both areas had the highest number of populations in age 65 or above which is over 48%. This was same in Yeonggwang-gun, where the gun also had the highest number of elderly populations who are aged 65 or above.

TABLE 6-2 DEMOGRAPHIC INFORMATION OF YEONGGWANG-GUN IN 2023

Total number of people Male		Female		
	No.	Percent	No.	Percent
53,182	26,709	50.22%	26,473	49.78%

Source: Yeonggwang-gun Statistical Yearbook, 2023

<sup>&</sup>lt;sup>7</sup> https://www.data.go.kr/data/15025251/fileData.do

TABLE 6-3 DEMOGRAPHIC INFORMATION OF NAKWOL, YEOMSAN-MYEON BY GENDER IN 2023

Region	Total population	Female	Male
	No.	No.	No.
Yeonggwang-gun	53,182	26,473	26,709
Nakwol-myeon	614	232	382
Yeomsan-myeon	3,885	1,967	1,918

Source: Yeonggwang-gun Statistical Yearbook 2023

TABLE 6-4 DEMOGRAPHIC INFORMATION OF YEONGGWANG-GUN (INCLUDING NAKWOL-MYEON AND YEOMSAN-MYEON), 2023

Yeonggwang-	gun	Nakwol-myeon		Yeomsan-myeon	
Inhabitant	Household	Inhabitant	Household	Inhabitant	Household
53,182	27,549	614	418	3,885	2,383

Source: Yeonggwang-gun Statistical Yearbook 2023

### 6.1.2 AGE DISTRIBUTION

In 2023, around 30.65% of population were identified to be 65 years and above, which is the highest among other age groups. Table 6-5 presents further details on the age distribution of Yeonggwang-gun's population as of 2023.8

TABLE 6-5 AGE DISTRIBUTION OF YEONGGWANG-GUN POPULATION IN 2023

Age group	Population	Percent
0 to 4 years	1,971	3.78%
5 to 14 years	3,508	6.72%
15 to 24 years	4,350	8.33%
25~34 years	4,503	8.63%
35 to 44 years	5,224	10.01%
45 to 54 years	7,372	14.12%
55years to 64 years	9,270	17.76%
65 years and above	15,999	30.65%
Total	52,197	100%

Source: Yeonggwang-gun Statistical Yearbook 2023

<sup>&</sup>lt;sup>8</sup> Yeonggwang-gun Government. Retrieved from: 인구현황>영광소개>영광소개>영광군청 (yeonggwang.go.kr) [Accessed July 2023]

In Nakwol-myeon and Yeomsan-myeon, population aged between 65 years and above accounted for 38.34% and 48.10% respectively in 2023.

TABLE 6-6 AGE DISTRIBUTION OF NAKWOL/YEOMSAN-MYEON, 2023

Age group	Nakwol-myeon		Yeomsan-myeon	
	Population	(%)	Population	(%)
0 to 4 years	11	1.79%	78	2.05%
5 to 14 years	23	3.75%	105	2.75%
15 to 39 years	70	11.42%	457	11.98%
40 to 59 years	206	33.61%	879	23.04%
60 to 64 years	68	11.09%	461	12.08%
65 years and above	235	38.34%	1,835	48.10%
Total	613	100%	3,815	100%

Source: Yeonggwang-gun Statistical Yearbook 2023

# 6.1.3 EDUCATION ATTAINMENT

According to the Yeonggwang-gun Statistical Yearbook 2023, most of the students were in elementary school with 1,989 elementary students accounting for 42.5% of the student population. The next largest group of students were in middle school, with 1,160 students; and accounted for 24.8% of the student population in Yeonggwang-gun.<sup>9</sup>

The data reflecting the makeup of the student population is represented in Table 6-7.

TABLE 6-7 PERSONS IN EDUCATION IN YEONGGWANG-GUN 2023

Education Level	Population (Students)	Percent
Kindergarten	289	6.2%
Elementary School	1,989	42.5%
Middle School	1,160	24.8%
High School	763	16.3%
Special Purpose High School	428	9.1%
University	51	1.1%
Total	4,680	100%

Source: Yeonggwang Statistical Yearbook, 2023

<sup>&</sup>lt;sup>9</sup> Yeonggwang-gun Government Retrieved from : 통계연보>일반행정>열린군정>영광군청 (yeonggwang.go.kr) [Accessed July 2023]

### 6.1.4 HOUSEHOLD SIZE

The average household size in Yeonggwang-gun from 2020 to 2023 ranged from 1.87 to 1.96 (refer to Table 6-8 and Table 6-9) $^{10}$ .

TABLE 6-8 ANNUAL AVERAGE HOUSEHOLD SIZE IN YEONGGWANG-GUN, 2024

Year	Households	Average Household Size
2020	27,138	1.96
2021	27,112	1.91
2022	27,549	1.89
2023	27,602	1.87

Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023

TABLE 6-9 ANNUAL AVERAGE HOUSEHOLD SIZE IN NAKWOL-MYEON AND YEOMSAN-MYEON

Year	Nakwol-myeon		Yeomsan-myeon	
	Households	Average Household Size	Households	Average Household Size
2020	411	1.44	2,385	1.69
2021	400	1.43	2,389	1.65
2022	418	1.43	2,383	1.62
2023	421	1.44	2,396	1.80

Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023

# 6.1.5 LIVELIHOODS, INCOME AND EXPENDITURES

# 6.1.5.1 EMPLOYMENT PATTERNS

Based on the statistics compiled for Jeollanam-do in 2021, the total population aged 15 or above was 1,524,000. Out of this, 984,500 individuals were employed, accounting for 64.6% of the population. The number of unemployed individuals stood at 24,000, making up 1.6% of the population, while 516,000 people (33.8%) were classified as not economically active<sup>11</sup>. Of the 984,500 employed, 221,250 (22.5%) individuals were reported to work in the agriculture, forestry and fishing industries, and of those workers, 10,200 (4.6%) were skilled workers. <sup>12</sup> In

 $<sup>^{10}</sup>$  Yeonggwang-gun Government. Retrieved from: 인구현황>영광소개>영광소개>영광군청 (yeonggwang.go.kr) [Accessed September 2024]

<sup>&</sup>lt;sup>11</sup> The economically active population is defined by KOSTAT as the combination of the employed who work and received an actual income, and the unemployed who are not working but are actively seeking work. The population who are not economically active may then be the population above 15 who are not employed and not seeking employment.

<sup>&</sup>lt;sup>12</sup> Yeonggwang-gun Government Retrieved from : 통계연보>일반행정>열린군정>영광군청 (yeonggwang.go.kr) [Accessed July 2023]

comparison to Jeollanam-do's unemployment rate of 2.4%, the national unemployment rate for 2021 was 3.7%, which decreased to 2.7% by May 2023.13

Of the 516,000 not economically active individuals, 200,000 (38.8%) were engaged with housekeeping and childcare and 108,000 (20.9%) were attending school.

On a national level in 2022, of the population aged 15 and above, 28,922,000 individuals were economically active, and 28,089,000 were employed. Individuals not economically active numbered 16,339,000 and 833,000 persons were unemployed. The national employment rate in 2022 was 62.1% while the unemployment rate was 2.9%.<sup>14</sup>

Figure 6-1 presents the status of employment of Jeollanam-do's population in further detail.

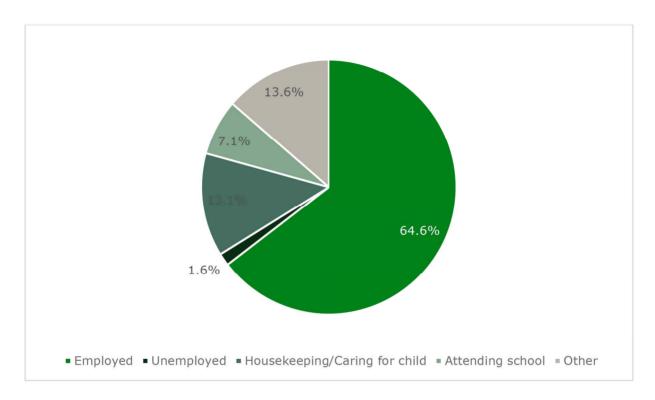


FIGURE 6-1 STATUS OF EMPLOYMENT OF JEOLLANAM-DO'S POPUALTION

Source: Jeollanam-do Registration Statistics, 2023

Table 6-10 presents employment statistics for Jeollanam-do by industry<sup>15</sup>. It can be noted that the predominant industries are Agriculture, Forestry and Fishery, and Business, Self-employed, Public Service & Others.

<sup>13</sup> Statistics Korea Retrieved from: 지표서비스 | e-나라지표 (index.go.kr) [Accessed July 2023]

<sup>14</sup> Korean Statistical Information Service. Retrieved from: 연령별 경제활동인구 총괄 (kosis.kr) [Accessed July 20231

<sup>15</sup> Jeollanam-do Government Statistics:

https://www.jeonnam.go.kr/M4687/boardView.do?seq=1890198&infoReturn=&menuId=jeonnam050809 0000&displayHeader=&searchType=&searchText=&pageIndex=1&boardId=M4687&displayHeader=

TABLE 6-10 EMPLOYMENT IN JEOLLANAM-DO BY INDUSTRY IN 2022

Employment	Persons
Agriculture, Forestry and Fishery	234,000
Mining and Manufacturing	99,000
Construction	69,000
Wholesale & Retail Trade, Restaurants and Hotels	178,000
Electricity, Transport, Communications, and Finance	354,000
Business, Self-employed, Public Service & Others	77,000
Total Working People	1,010,000

Source: Jeollanam-do Registration Statistics, 2023

On the Yeonggwang-gun level, based on the statistics provided by the Korea Statistical Information Service Statistical Database<sup>16</sup> as of first half of 2024, similarity distribution of industry employment was noted, in which the predominant industries are Agriculture, Forestry and Fishery, and Business, Self-employed, Public Service & Others (refer to Table 6-11).

TABLE 6-11 EMPLOYMENT IN YEONGGWANG-GUN BY INDUSTRY, 2024

Employment	Persons	Percent
Agriculture, Forestry and Fishery	10,000	34.48%
Mining and Manufacturing	2,000	6.90%
Construction	2,000	6.90%
Wholesale & Retail Trade, Restaurants and Hotels	4,000	13.79%
Electricity, Transport, Communications, and Finance	1,000	3.45%
Business, Self-employed, Public Service & Others	10,000	34.48%
Total Working People	29,000	100%

Source: Korea Statistical Information Service, 2024

TABLE 6-12 NUMBER OF ESTABLISHMENT WORKERS BY INDUSTRY IN YEOMSAN-MYEON, 2023

Employment	No. of Workers
Agriculture, Forestry and Fishery	26
Mining and Manufacturing	117
Construction	16
Wholesale & Retail Trade, Restaurants and Hotels	190
Electricity, Transport, Communications, and Finance	40
Business, Self-employed, Public Service & Others	40
Accommodation and Food service Industry	85

<sup>16</sup> KOSIS 국가통계포털

Employment	No. of Workers
Total Working People	514

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-13 NUMBER OF ESTABLISHMENT WORKERS BY INDUSTRY, IN NAKWOL-MYEON 2023

Employment	Workers
Agriculture, Forestry and Fishery	-
Mining and Manufacturing	-
Construction	-
Wholesale & Retail Trade, Restaurants and Hotels	9
Electricity, Transport, Communications, and Finance	22
Business, Self-employed, Public Service & Others	17
Accommodation and Food service Industry	19
Total Working People	67

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-14 EMPLOYMENT IN JELLONAM-DO ACCORDING TO EDUCATIONAL ATTAINMENT, 2022

Category	Total	Middle School Graduates and under	High School Graduates	College/ University and Above
Number of Individuals	1,010,000	269,000	375,000	367,000

Source: Jeollanam-do Social Statistical Survey, 2023<sup>17</sup>

# 6.1.5.2 HOUSEHOLD MONTHLY INCOME

The household monthly income in Yeonggwang-gun is presented in Table 6-15. Of the average monthly income of Yeonggwang-gun, 50.7% were more than 2 million KRW and 49.3% were less than 2 million KRW<sup>18</sup>.

The relative poverty rate is defined as the percentage of the population that falls below 50% of the median income of the total population. Relative poverty refers to a state in which most members of society would not enjoy their living standards, and it differs in comparison to the minimum standard of living income, which defines absolute poverty. South Korea's relative poverty rate is at 15.1% meaning that one in six Koreans are living at less than 50% of the median income. As of 2022, 50% of the median income was KRW 914,000 per household.<sup>19</sup>

<sup>17</sup> 전라남도청 | 분야별 정보 | 통계정보 | 전남 통계연보

<sup>&</sup>lt;sup>18</sup> Korean Statistical Information Service. Retrieved from: 월평균 가구소득 (kosis.kr) [Accessed July 2023]

<sup>19</sup> Statistics Korea Retrieved From:국가지표체계 (index.go.kr) [Accessed July 2023]

TABLE 6-15 AVERAGE HOUSEHOLD MONTHLY INCOME IN YEONGGWANG-GUN 2022

Income (KRW)	Percent
Below 500,000	14.8%
Between 500,000 - 1 million	19.5%
Between 1 - 2 million	16.4%
Between 2 - 3 million	17.8%
Between 3 – 4 million	13.1%
Between 4 - 5 million	6.3%
Between 5 - 6 million	3.9%
Between 6 – 7 million	3.1%
Between 7 – 8 million	1.2%
Above 8 million	3.8%

Source: Korean Statistical Information Service 2023

Note: total is 99.9% also in source, presumably due to a rounding issue that cannot be verified nor corrected.

#### 6.1.5.3 HOUSEHOLD MONETARY EXPENDITURE

Residents of Jeollanam-do spend less on average on groceries than those of Yeonggwang-gun, which represents 34.5% of the total monthly household expenditure. The second largest source of expenditure is also health care, representing 15.0% of the total monthly expenditure, which is also less than Yeonggwang-gun. The third largest source of expenditure is spent on housing such as paying rent, which represents 13.3% of the monthly household expenditure in Jeollanam-do.<sup>20</sup>

From the Yeonggwang-gun level,<sup>21</sup> the below Table 6-16 indicates the yearly household expenditure.

TABLE 6-16 YEARLY HOUSEHOLD EXPENDITURE, 2022

Yearly Household Expenditure	Percentage
Below 50,000 KRW	19.7
Between 500,000 - 1 million	27.6
Between 1 - 2 million	22.2
Between 2 - 3 million	15.7
Between 3 – 4 million	6.7
Between 4 – 5 million	4.0
Between 5 – 6 million	2.0
Between 6 – 7 million	1.3

<sup>&</sup>lt;sup>20</sup> Korean Statistical Information Service. Retrieved from: <u>1. 월평균 가구 소비 (kosis.kr)</u> [Accessed July 2023]

CLIENT: Anma Offshore Wind Energy Co., Ltd.

<sup>&</sup>lt;sup>21</sup> Statistics Korea Report on Results of Household Trends (2021)

Yearly Household Expenditure	Percentage
Between 7 - 8 million	0.0
Above 8 million	0.8

Source: KOSIS, 2023<sup>22</sup>

### 6.1.5.4 HOUSEHOLD SAVING AND DEBT IN 2023

The average annual household savings and debts for Jeollanam-do in 2023 are detailed in Table 6-17.

TABLE 6-17 SAVINGS AND DEBT IN JEOLLANAM-DO

Category	Data
Average Age of Head of Household	60 years
Savings as of 2023	KRW 338,910,000
Debt as of 2023	KRW 51,460,000
Average Annual Household Income of 2023	KRW 60,930,000
Agricultural Household Debt as of 2023	KRW 33,124,000

Source: Korean Statistical Information Service, 2023<sup>23</sup>

#### 6.1.6 SOCIO ECONOMICS

The main indicators of the socio-economic data are summarized in Table 6-19. The average household size in Yeonggwang-gun in 2023 was 1.87 and the annual recorded number of households has been in gradual decrease since 2020.

TABLE 6-18 ANNUAL AVERAGE HOUSEHOLD SIZE IN YEONGGWANG-GUN

Year	Households	Average Household Size
2020	27,138	1.96
2021	27,112	1.91
2022	27,549	1.89
2023	27,602	1.87

Source: Yeonggwang-gun Statistical Yearbook 2023 for data for 2020 to 2022, and Standard Resident Registration Population and Household Status for data for 2023

As below Table 6-19 indicates, there are more women than men in Yeonggwang-gun, with a population made up of ratio of 49.99% male and 50.01% female. In comparison, the national level has a similar equal distribution, with a 49.8% male population and 50.2% female population.

CLIENT: Anma Offshore Wind Energy Co., Ltd.

<sup>&</sup>lt;sup>22</sup> KOSIS Data: Yearly Household Expenditure: Yeonggwang-gun

<sup>&</sup>lt;sup>23</sup> KOSIS: Jeon-nam: 지역별보기 | e-지방지표

The aging index<sup>24</sup> of Yeonggwang-gun of 297 is significantly higher than national level which has an aging index of 165, which indicates that Yeonggwang-gun is likely to have a greater demand for health and social care.

The levels of educational attainment achieved in Yeonggwang-gun were lower than the national level, however the differences were marginal.

TABLE 6-19 SUMMARY OF SOCIO-ECONOMIC CHARACTERISTICS

Item		Average Level in Yeonggwang-gun	Average Level of Nationally
Gender ratio	Male	49.99%	49.8%
	Female	50.01%	50.2%
Age	0-14 years old	10.4%	11.2% <sup>25</sup>
distribution	15-64 years old	58.7%	70.3%
	65 years old and above	30.9%	18.5%
Aging Index <sup>26</sup>		297.1	165.2
Key Sectors of	Agriculture, Forestry and Fishing	22.5%	5.8% <sup>27</sup>
Employment in Yeonggwang-	Mining and Manufacturing	9.8%	15.6%
gun	Social and Capital Services	67.7%	78.6%
Education of the Employed	Middle School Graduates and Below	26.9%	21.6% <sup>28</sup>
Population	High School Graduates	37.0%	36.9%
	College / University and above	36.1%	41.5%
Employment rate	9	69.3%	62.1%
Unemployment r	ate	0.9%	2.9%

Source: Yeonggwang Statistical Year Book, 2022; Yeonggwang-gun Social Statistical Survey, 2022, and Korean Statistical Information Service; National Statistical Survey 2022.

#### 6.1.7 HEALTH

The statistics of the Korea Disease Control and Prevention Agency identifies the communicable diseases that occurred between the January, 2024 to January, 2025. The below Table 6-20, indicates the number of communicable diseases that occurred in Yeonggwang-gun.

<sup>&</sup>lt;sup>24</sup> Aging Index = (population who are 65 years old and above/population who are 0-14 years old)\*100

<sup>&</sup>lt;sup>25</sup> Ministry of the Interior and Safety Citizen Registration Population Statistics Retrieved from:연령별 인구현황 (mois.qo.kr) [Accessed July 2023]

<sup>&</sup>lt;sup>26</sup> Aging Index = (population who are 65 years old and above/population who are 0-14 years old)\*100

<sup>&</sup>lt;sup>27</sup> Korean Statistical Information Service. Retrieved from: 산업별 취업자 (kosis.kr) [Accessed July 2023]

<sup>&</sup>lt;sup>28</sup> Korean Statistical Information Service. Retrieved from:교육정도별 경제활동인구 (kosis.kr) [Accessed July 2023]

TABLE 6-20 COMMUNICABLE DISEASES OF YEONGGWANG-GUN

Classification	Diseases	No. of Cases in Yeonggwang-gun
1 <sup>st</sup> Grade		
	Ebloa Virus	0
	Marburg Virus	0
	Lassa Fever	0
	Crimean-Congo Hemorrhagic Fever	0
	South American Hemorrhagic Fever	0
	Rift Valley Fever	0
	Smallpox	0
	Plague	0
	Anthrax	0
	Botulism	0
	Brucellosis	0
	SARS	0
	MERS	0
	Zoonotic Influenza Infection	0
	New Influenza Infection	0
	Dipitheria	0
2 <sup>nd</sup> Grade		'
	Chickenpox	49
	Measles	0
	Cholera	0
	Typhoid Fever	0
	Bacillary dysentery	0
	Enterohemorrhagic Escherichia coli infection	1
	Hepatitis A	3
	Pertussis	27
	Mumps	7
	Congenital rubella syndrome (CRS)	0
	Rubella (Acquired)	0
	Poliomyelitis (Polio)	0

Classification	Diseases	No. of Cases in Yeonggwang-gun
	Meningococcal infection	0
	Haemophilus influenzae type b (Hib) infection	0
	Pneumococcal infection	0
	Hansen's disease (Leprosy)	0
	Scarlet fever	6
	Vancomycin-resistant Staphylococcus aureus (VRSA) infection	0
	Carbapenem-resistant Enterobacteriaceae (CRE) infection	33
	Hepatitis E	2

Source: Statistics of Korean Disease Portal<sup>29</sup>

Nakwol-myeon has three public health centers in Sangnakwol-do, Songi-do, and Anma-do. Health centers operate 9:00 to 18:00 on weekdays<sup>30</sup>, and the nearest general hospital with ER that operates 24 hours is located in Yeonggwang-gun. Nakwol-myeon has two doctors, one dentist, one Korean medicine doctor and one registered nurse working in the public health centers<sup>31</sup>.

TABLE 6-21 PUBLIC HEALTH CENTERS WITHIN ONSHORE AOI

Medical Facility	Location	Hours
Nakwol public sub- health center	Sangnakwol-do (1-11, Nakwol-gil, Nakwol-myeon, Yeonggwang-gun, Jeollanam-do)	Mon ~ Fri, 09:00 ~ 18:00
Songi public health care post	Songi-do (43, Songi-gil, Nakwol-myeon, Yeonggwang-gun, Jeollanam-do)	Mon ~ Fri, 09:00 ~ 20:00
Anma public health care post	Anma-do (22, Anma-gil 1-gil, Nakwol-myeon, Yeonggwang-gun, Jeollanam-do)	Mon ~ Fri, 09:00 ~ 18:00
Yeonggwang-gun medical center	3, Waryong-ro, Yeonggwang-eup, Yeonggwang-gun, Jeollanam-do	Mon ~ Fri, 09:00 ~ 17:00 Sat, 09:00 ~ 13:00 Emergency (ER) operates 24hours

#### 6.1.8 STAKEHOLDER INTERVIEW INSIGHT

In addition to statistical data, qualitative insights were obtained through focus group discussions (FGDs) and key informant interviews (KIIs) with local residents, village leaders, women's associations, elderly groups, and foreign workers. These engagements provided a

<sup>&</sup>lt;sup>29</sup> https://dportal.kdca.go.kr/pot/is/rginEDW.do

<sup>30</sup> Yeonggwang-gun Government. Retrieved from: 읍면소개>영광소개>영광소개>영광군청

<sup>(</sup>yeonggwang.go.kr) [Accessed September 2024]

<sup>&</sup>lt;sup>31</sup> Yeonggwang-gun Statistical Year Book, 2023

nuanced understanding of demographic trends and community dynamics beyond what was captured in census or survey data.

In Anma-do, many interviewees described a declining youth population, with most younger residents having relocated to urban areas for education or employment. The community is predominantly composed of elderly households and returnee retirees, with strong informal social support networks through local associations.

In Songam-ri, community identity is closely tied to long-standing family farms and salt production. While aging is also evident, there is a higher prevalence of multigenerational households. Interviewees noted the importance of maintaining access to communal resources such as water channels, irrigation roads, and shared storage areas.

### 6.2 FISHERS IN YEONGGWANG-GUN

All fishing boats have licenses and licenses are monitored and regulated by the port authorities and coastal guard who keep records of all licenses. It is extremely difficult to operate illegal fishing boats/vessels as the local fishing ports are managed by the local authority, and all the users of such fishing ports are members of National Federation of Fisheries Cooperatives.

Boats must report to the coastal guard every time they go out to sea, and as such, any unreported/illegal fishing is expected to be detected, by or reported to, the coastal guard (refer to Section 5.3).

According to the Yeonggwang-gun statistical yearbook 2023, the products cultivated and caught in Yeonggwang-gun include: fish, crustaceans, seaweeds, molluscs and shellfish.

TABLE 6-22 TOTAL CATCHES IN YEONGGWANG-GUN, 2023

Species	Amount (M/T)	Prices (KRW)
Fish	12,057	206,757,500,000
Crustaceans	505	8,660,000,000
Molluscs	11	216,500,000
Shellfish	51	866,000,000
Seaweed	-	-
Total	12,623	216,500,000,000

Source: Yeonggwang-gun Statistical Yearbook, 2023

The national average income of fisheries across South Korea including income from sources unrelated to fishing totalled an average of KRW 52,911,000 in 2022. Fishery related annual income totalled an average of KRW 20,722,000 representing a fishing dependence of 39.2%.<sup>32</sup>

# 6.2.1 FISHING POPULATION IN YEONGGWANG-GUN

Fisheries in the Project area is typically categorized as offshore fisheries and inland water fisheries, respectively.

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 ${\tt CLIENT: Anma\ Offshore\ Wind\ Energy\ Co.,\ Ltd.}$ 

<sup>32</sup> Statistics Korea Retrieved from: <u>어가 소득현황 : 지표상세화면 50 (index.go.kr)</u> [Accessed July 2023]

#### 6.2.1.1 OFFSHORE FISHERIES

In 2023 the population in Yeonggwang-gun that engaged in marine fishing household population is a total of 8,188 individuals and 3,372 fishery households. Of the fishing household population, 48.46% were male and 51.54% were female <sup>33</sup>. Of the 3,372 households, 878 (26.0%) households are engaged in saltwater fishing as a full-time job, and 2,494 households (74.0%) are engaged in fishery as a side job. As of 2022, there were a total of 8,188 fishery workers, with an average of 2.1 fishery workers per household.

Meanwhile, the fishing household population is a family member, relative, or other cohabitant who currently lives with the fishery business owner, who has lived for more than one month or who will continue to live together in the future. On the other hand, a fishery worker is a person who is engaged in capturing, gathering, or breeding aquatic animals and plants for fishers (those who manage fisheries).

In Nakwol-myeon, there are four registered fishing village societies, in Sangnakwol-ri, Hanakwol-ri, Songi-ri, and Wolchon-ri. The total number of fishers registered in Nakwol-myeon is 164 persons. Sangnakwol-ri, Hanakwol-ri and Songi-ri have and exercise communal fishing right each for 270 ha, 44.5 ha and 500 ha. Wolchon-ri has in total 13 abalone farms in operation, covering 100 ha area. Table 6-23 indicates the 2023 statistics of the Fishing Village Societies statistics.

TABLE 6-23 FISHERS ASSOCIATION IN 2023

Association Name	Address	No of registered member	Communal Fishing Right (Unit: ha)	Major produce
Sangnakwol	Sangnakwol-ri, Nakwol-myeon, Yeonggwang-gun	51	270	Clam, Razor clam
Hanakwol	Hanakwol-ri, Nakwol- myeon, Yeonggwang- gun	33	500	Razor clam
Song-gak	Songi-ri, Nakwol- myeon, Yeonggwang- gun	30	44.5	Clam
Anma	Wolchon-ri, Nakwol- myeon, Yeonggwang- gun	50	100	Abalone

Source: Suhyup Report on Fishing Village Societies Survey 2023

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### 6.2.1.2 INLAND WATERS FISHERIES

Table 6-24 details the fishery population in Yeonggwang-gun as of 2023 by type of fishery activity according to the Yeonggwang-gun Statistical Yearbook, 2023. The number of fishery household for offshore fishery is 7,090 and the inland water fishery is 215. The number of fishery worker population was higher than inland water fishery workers.

<sup>33</sup> Yeonggwang-gun Statistical Yearbook (2023).

TABLE 6-24 FISHERY POPULATION IN YEONGGWANG-GUN, 2023

	Fishery Household	Fishery Worker Population
Offshore Fishery	7,090	8,188
Inland Water Fishery	215	288

Source: Yeonggwang-gun Statistical Yearbook, 2023

# 6.2.2 SUMMARY OF POTENTIALLY AFFECTED FISHERS (PRELIMINARY ESTIMATE)

The Project has identified three main categories who may be affected by the Project activities. These include permitted fisheries operating under formal licenses, licensed village or aquaculture fisheries with communal rights, and reported fisheries registered in the County and managed by each Fishing Village. While the final numbers and entitlements will be confirmed following the completion of the Fishery Damage Investigation (FDI), Table 6-25 provides a provisional summary to ensure early consideration in the assessment and planning processes.

TABLE 6-25 SUMMARY OF FISHERS POTENTIALLY AFFECTED BY THE PROJECT (PRELIMINARY ESTIMATE)

Fishery Category	Tentative Recipients	Affected Area
Permitted Fisheries	575 Licenses Coastal fishing : 544 Offshore fishing : 31	Operating in Yeonggwang County Windfarm Area (approx. 3.9 km buffer)
Licensed Fisheries	6 Fisheries 4 village fisheries 2 shellfish aquaculture	Located within 500 m of the offshore cable route
Reported Fisheries	About 1500 Fishers Song-am Village Hasa Village Dowoo Village Yawol Village	Near the onshore landfall area

This provisional breakdown enables the Project to consider differential risks and potential impacts on each group based on their legal status, location, and level of dependence on marine access within the Project's Area of Influence. These categories will be further validated during the FDI process, and final compensation eligibility and mitigation measures will be incorporated into the Livelihood Restoration Plan (LRP).

# 6.2.3 FISHING ACTIVITIES IN YEONGGWANG-GUN

As of 2022, there were a total of six fishing ports in Yeonggwang-gun. Three were nationally designated fishing ports, two were regionally designated fishing ports and one was a small-scale fishing port.

Fishing activities in Yeonggwang-gun are primarily carried out via fishing vessels. Coastal fishing involves the use of small fishing boats to catch fish, while offshore fishing employs larger vessels, reaching areas typically located at a day's round trip distance from the fishing port. Inland water fishery, on the other hand, entails fishing activities conducted in freshwater

or brackish water bodies, such as rivers and lakes, and is further categorized into river fishery and lake fishery.

In South Korea, all coastal and offshore fishing vessels are legally required to be equipped with V-PASS (Vessel Position Reporting System), a government-mandated tracking system that transmits real-time vessel location data to the national monitoring platform administered by the Ministry of Oceans and Fisheries. Vessel departure is subject to electronic clearance, and unauthorized or unregistered boats are not permitted to operate.

This system ensures centralized monitoring and enforcement of fishing regulations nationwide, making informal or unlicensed fishing activity highly unlikely. During the field visits to fishing ports in Yeonggwang-gun, and through interviews with vessel operators, local fishery cooperatives, and port staff, it was confirmed that all fishing vessels in the area are registered and equipped with V-PASS. No informal or unlicensed boats were reported or observed, and stakeholders emphasized that it would not be possible to fish without registration due to the enforcement of departure clearance procedures.

Therefore, while IFC Performance Standards require the inclusion of all potentially affected fishers regardless of legal status, this SIA has not identified the presence of informal or unlicensed fishing vessels within the Area of Influence. However, in accordance with the precautionary principle, all small-scale and artisanal fishers—regardless of income level, vessel size, or type of operation—are scoped into the assessment and will be considered in the Livelihood Restoration Plan (LRP) as appropriate.

According to the Korea Statistical Information Service, there were a total of 49 offshore fishery licenses issued in Yeonggwang-gun in 2019. Out of these licenses, seven permits (14.3%) were for inshore jigging fishing, 34 permits (69.4%) were for inshore gillnet fishing, one permit (2.0%) was for inshore Korean Stick-held Dip Net Fishery, and the remaining seven permits (14.3%) were for inshore longline fishing<sup>34</sup>.

As of 2022, there are 71 (3,474 ha) fishing licenses in Yeonggwang-gun, 137 (414.5 ha) cases of aquaculture, and 783 (Inshore: 37, Coastal: 746) cases of fishing by vessels.

TABLE 6-26 PERMITTED FISHERY TYPE

Category			Definition
Tanana Maria	Coastal Fishery Business	Coastal fishery business refers to fishing activities conducted using non-motorized fishing vessels or power-driven fishing vessels with a gross tonnage of less than 10 tons, excluding inshore fisheries and the fishery business within a demarcated zone of waters.	
		Inshore Fishery Business	Inshore fishery business refers to fishing activities carried out using a power-driven fishing vessel with a gross tonnage of at least 10 tons or a power-driven fishing vessel with a gross tonnage of less than 10 tons, as deemed particularly necessary to protect fishery resources and coordinate fisheries, as prescribed by Presidential Decree.

<sup>&</sup>lt;sup>34</sup> Korean Statistical Information Service Retrieved from: <u>5. 근해어업 허가현황 (kosis.kr)</u> [Accessed July 2023]

Category		Definition	
	Fishery Business within a Demarcated Zone of Waters	Fishery business within a demarcated zone of waters refers to fishing activities conducted by installing fishing gear or by using a non-power-driven fishing vessel or a power-driven fishing vessel with a gross tonnage of less than five tons within a demarcated zone of waters.	

Source: Article 40 of the Fisheries Act

TABLE 6-27 DEFINITION OF INSHORE FISHERY BUSINESS TYPE

Category		Definition	
Inshore Fishery Business	Inshore Jigging Fishing	This type of fishing involves the use of fishing gear with one or more hooks attached to a single line. It employs a fishing rod, an automatic catching machine, or a manual catching machine to catch aquatic animals, typically using a single fishing boat that operates under a valid fishing license.	
	Inshore Gillnet Fishing	This type of fishing uses a motorized vessel (10-90 tons) with drift or stationary gill nets to catch species like small yellow croaker, squid, and shrimp. Drift nets follow the current, while stationary nets are fixed. Fishing periods vary by species, and a crew of 7-8 members operate the vessel.	
	Inshore Korean Stick- held Dip Net Fishery	This type of fishing involves a motorized vessel (10-90 tons) using various nets, excluding Bongsumang (a type of lift net), Chomang (seine net), and Deulmang (set net), to catch fish by lifting them from the water. These nets are primarily used to target species like Pacific saury, particularly between August and December in the waters of Jeollanam-do. The vessel typically operates with a crew of 30-35 members.	
	Inshore Longline Fishing	Fishing that catches aquatic animals using longlines (fishing gear with multiple fishing lines attached to a single main line) on power-driven fishing vessels weighing 8 tons or more offshore.	

# 6.2.4 FISHING VESSEL AND TONNAGE

Korean Statistical Information Service (KOSIS) shows that in 2021, there were a total of 764 powered fishing vessels amounting to a total tonnage of 3,095 tons, and 40 non-powered boats which had a collective tonnage of 144 tons.

The figures reported by the KOSIS represent the total number of registered fishing vessels in Yeonggwang-gun and include both inshore and offshore vessels. The data do not explicitly disaggregate between inshore and offshore operations, but the majority of vessels in the 1–5 ton range are typically associated with inshore fisheries, based on local fishery profiles and field interviews.

According to the official statistics of Yeonggwang-gun, vessels weighing between 1-5 tons were recorded as the most popular fishing vessel in Yeonggwang-gun and accounted for 59.0% of all recorded fishing boats in the County. Fishing vessels that weighed below one ton were second most popular and accounted for 20.5% of the fishing vessels in Yeonggwang-gun. Vessels weighing more than 10 tons made up only 6.5% of the total number of fishing vessels<sup>35</sup>.

<sup>35</sup> Korean Statistical Information Service Retrieved from: 어선보유 (kosis.kr) [Accessed July 2023]

The fishing vessels according to tonnage in Yeonggwang-gun in 2023 are presented in Table 6-28 below.

TABLE 6-28 FISHING VESSELS IN YEONGGWANG-GUN 2023

Type in Weight	Quantity	Percentage
Below 1 metric ton	165	20.5
1 – 5 metric tons	474	59.0
5 – 10 metric tons	112	14.0
10 – 20 metric tons	28	3.5
20 – 30 metric tons	18	2.2
30 - 50 metric tons	6	0.7
50 – 100 metric tons	1	0.1
Total	804	100%

Source: Yeonggwang-gun Statistical Yearbook, 2023

Based on Table 6-27, which presents vessel tonnage data sourced from the Korean Statistical Information Service (KOSIS), approximately 59% of all registered fishing vessels in Yeonggwang-gun fall within the 1–5 ton category. Field visits to all fishing ports in Yeonggwang-gun and interviews with local fishery leaders and cooperatives confirmed that this vessel class (1 ton or above) represents the majority of those actively engaged in fishing operations.

During these consultations, stakeholders clarified that vessels under 1 ton—although still included in registration databases—are not actively in use. Many of these were decommissioned in previous years but remain on the registry due to the lack of formal cancellation reports. Port visits corroborated this, as no sub-1-ton vessels were observed operating, nor were they seen docked at any of the ports. Local fishery representatives consistently stated that given the ongoing decline in fish stock and profitability, owners of such vessels have ceased fishing and are no longer considered economically active.

Most actively operating vessels in the 1–5 ton class fall under permitted inshore fishery types, such as gillnet and jigging operations, and are accounted for in the permits detailed in Tables 6–25 and 6–26. While the regulatory framework, including the national V-PASS tracking system, makes unpermitted fishing activity highly unlikely, the Project acknowledges the importance of including all potentially affected groups.

As such, the SIA includes small-scale fishers operating permitted vessels, and the Project remains open to identifying any overlooked or informal fishers through future engagement. All such groups will be considered in the Livelihood Restoration Plan (LRP), following IFC Performance Standard 5.

### 6.2.5 NATIONAL FISHING PORTS

Gyema Fishing Port, situated in Yeonggwang-gun, earned its national offshore fishing port status in December, 1971. The port is under the management of Yeonggwang-gun, which oversees its operations. Similarly, Anma Fishing Port, also located in Yeonggwang-gun, was designated as the National fishing port for the region in March, 1986. More recently, in

September 2021, Hyanghwado Fishing Port, also part of Yeonggwang-gun, was recognized as another national fishing port.

As of 2019, Gyema Port comprised 137 households with a total population of 260 individuals, out of which 40 households were primarily engaged in fishing activities. Anma Port consists of 50 households and a population of 150, with 20 of those households involved in fishing as their primary livelihood. Table 6-29 describes the summary of fishing related information in Yeonggwang-gun.

TABLE 6-29 SUMMARY OF FISHERIES DATA

Item	Average Yeonggwang-gun		
Number of Fisheries Households	Offshore Fishery	3,362	
	Inland Water Fishery	100	
Fishing Methods	Jigging fishing		
	Gillnet fishing		
	Korean Stick-held Dip Net fishing		
	Longline fishing		
Most Popular Fishing Vessel	Below 1 metric ton	20.5%	
(by weight)	1 – 5 metric tons	59.0%	
Number of Fishing Ports in	Nationally designated fishing ports	3	
Yeonggwang-gun	Regionally designated fishing ports	2	
	Small scale ports	1	

Source: Yeonggwang-gun Statistical Yearbook 2022

#### 6.2.6 STAKEHOLDER INTERVIEW INSIGHT

In mid-May 2025, interviews were conducted with village leaders, fishermen, and representatives from local fisheries cooperatives in several coastal communities near the project site. These areas rely heavily on coastal fishing practices such as gillnetting, fish trapping, and hand harvesting, particularly for shellfish, as confirmed in both stakeholder interviews and household surveys.

Participants expressed that the proposed offshore wind development area overlaps with traditional fishing grounds and may pose operational considerations for some fishers, particularly those using anchored gear. Representatives from the anchor net fishery association noted that certain adjustments, such as repositioning anchors, rerouting vessels, or navigating around turbine arrays, could increase logistical complexity. These were not expressed as definitive impediments, but rather as practical issues to be considered in planning and addressed through dialogue and coordination.

Some concerns were also raised about the compensation framework, which is currently documentation-based and may not fully reflect the activities of bare-hand harvesting. While these participants did not frame this as a formal objection, they proposed that future compensation schemes should include more flexible criteria to capture diverse fishing practices. Related suggestions included accounting for indirect impacts, such as fuel costs, gear maintenance, and vessel licensing premiums, which are not always formally documented.

Importantly, interviewees, including fisheries cooperatives and village representatives, clarified that they do not oppose offshore wind power in principle. Many acknowledged the growing necessity of renewable energy development in the context of national policy, climate change, and local trends such as declining fish stocks. Rather than contesting the Project itself, they emphasized the importance of building a collaborative model that supports coexistence. Suggested pathways included collective negotiations through representative bodies, community-based benefit-sharing, and the establishment of local fishery development funds. These were framed not as demands, but as constructive proposals to ensure long-term mutual benefit between offshore wind development and fishing communities.

Household survey results echoed these views. Many respondents expressed conditional acceptance of the Project, provided that their livelihoods would be respected, that communication channels remained open, and that long-term benefits would be equitably distributed. Overall, the feedback received during the interviews highlighted a willingness to engage in good faith, and a preference for participatory, negotiated solutions over confrontation or opposition.

# 6.3 LABOUR

#### 6.3.1 LOCAL LABOUR

In Yeonggwang-gun, as of 2023, the salary workers and self-employed workers accounts for 50% each. Correlation can be assumed between high self-employed ratio and high agriculture/fishery-related occupation ratio, which accounts for 35.71% of the total employment. As for the population economically inactive, participation in housework accounted for about 46% of the reason.

TABLE 6-30 WORKERS BY EMPLOYMENT TYPE IN YEONGGWANG-GUN IN 2023

Employment type	Number of people
Salary workers	14,000
Full-time employment	10,000
Temporary employment	4,000
Self-employed workers	14,000
TOTAL	28,000

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-31 WORKERS BY OCCUPATION IN YEONGGWANG-GUN IN 2023

Occupation type	Number of people
Management and specialist	3,000
Office and administrative workers	4,000
Service and sales workers	5,000
Agriculture and fishery workers	10,000
Engineering and assembly workers	3,000

Occupation type	Number of people
Simple labour workers	4,000
TOTAL	28,000

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-32 ECONOMICALLY INACTIVE POPULATION IN YEONGGWANG-GUN IN 2023

Inactive type	Number of people
Housework	6,000
Education	2,000
Aged	3,000
Others	2,000
Total	13,000

Source: Yeonggwang-gun Statistical Yearbook, 2023

#### 6.3.2 FOREIGN LABOUR

Considering that of the economically active foreign population in Jeollanam-do is 15,084<sup>36</sup>, and that the total foreign registered population to be 53,506,<sup>37</sup> it can be assumed that foreign labour is not prominent in Nakwol-myeon, except for possibility of seasonal and/or temporary workers that are not captured in the statistics. The below indicates the foreign population in Yeomsan-myeon and Nakwol-myeon of 2023 from the Yeonggwang-gun Statistical Yearbook, 2023.

It can be seen that majority of the foreigners in Yeomsan-myeon and Nakwol-myeon are male, and most likely be the foreign labour. According to the interview undertaken with the Officer in charge of the Yearbook of the General Affairs Division of Yeonggwang County Office, while the officer cannot be completely certain, the office thinks majority of the foreign labour in Yeomsan-myeon and Nakwol-myeon will be either working for local fishers or agricultural farms.

It should be noted that all foreign nationals working in the fisheries sector are formally registered and employed through licensed cooperatives such as the National Federation of Fisheries Cooperatives (Suhyup). Under current Korean law and labor practices, there is no indication or allowance for informal or unregistered employment in this sector.

TABLE 6-33 FOREIGN POPULATION IN YEOMSAN-MYEON AND NAKWOL-MYEON IN 2023

Region	Foreign Population	Male	Female
Nakwol-myeon	16	15	1
Yeomsan-myeon	30	22	8

Source: Yeonggwang-gun Statistical Yearbook, 2023

<sup>&</sup>lt;sup>36</sup> Korean Statistical Information Service : 행정구역(시도)/업종별 일반고용허가제(E-9) 외국인 근로자 수

<sup>37</sup> 전라남도청 | 분야별 정보 | 통계정보 | 주민등록·추계인구

While official statistics do not provide employment data by nationality or sector, AWC acknowledges the importance of inclusive communication for foreign workers formally engaged through legal channels. During the construction phase, most workers will be employed by EPC contractors, who typically deploy their own workforce. However, employment opportunities are open to both Korean and non-Korean individuals with valid work permits in Korea. Should foreign nationals be engaged in the Project, materials in a language that the workers can understand will be accessible. EPC contractors and subcontractors will also be required to fulfill this obligation, and AWC will monitor implementation of these requirements as part of its oversight responsibilities. This will be aligned with good international practice and IFC Performance Standards to ensure inclusive communication and safe working conditions.

During the social baseline process, interviews with foreign crew members confirmed the presence of foreign workers (e.g., Indonesian and Thai nationals) assisting in fishing activities. These workers, while formally registered, reportedly had face language barriers.

To ensure a precautionary approach, the Project will apply these provisions not only to directly engaged workers but also to foreign workers indirectly affected by Project activities, such as those in the fisheries sector. This inclusive approach will be regularly monitored throughout the construction phase.

TABLE 6-34 REGISTERED FOREIGNERS BY NATIONALITY

Nationality	Nakwol-myeon	Yeomsan-myeon
China	1	1
Vietnam	2	5
Japan	-	1
Indonesia	1	6
Philippines	-	1
Thailand	-	1
Mongolia	-	2
Other	12	13
Total	16	30

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-35 ECONOMICALLY ACTIVE FOREIGN POPULATION IN JEOLLANAM-DO, IN 2023

Region	Foreign population (resident- registered)	Economically-active foreign population (resident-registered)
Jeollanam-do	53,506	15,084

Source: Foreign population (resident registered) from Jeollanam-do government statistic website (dated June, 2024) and the Economically Active population sourced from KOSIS)

# 6.3.3 STAKEHOLDER INTERVIEW INSIGHT

In mid-May 2025, interviews were conducted with local fishery leaders and vessel operators in communities. According to participants, a significant number of inshore fishing vessels in the region rely on foreign crew members, primarily from Thailand, Vietnam, and Indonesia. These workers are typically recruited through the National Federation of Fisheries Cooperatives

(Suhyup) and are employed on short-term or seasonal contracts ranging from 6 to 9 months. All interviewees confirmed that the foreign migrant workers hold valid work visas, receive onboard accommodation and meals, and are generally able to communicate in basic Korean.

The structured household survey conducted in Anma-do corroborated this, with two of the surveyed households reporting the employment of foreign fishing crew members. These households highlighted that foreign workers support routine fishing operations, particularly during peak seasons, and help compensate for the local shortage of younger labor. Despite their limited integration into broader community life, due to their seasonal status and single-person migration, foreign workers were viewed as reliable, trusted, and essential contributors to fishing activities.

Both vessel owners and surveyed residents emphasized that if fishing operations were temporarily suspended or reduced due to offshore construction activities, foreign crew members would likely seek alternative placements through their existing channels, particularly via the Suhyup. Since their contracts are short-term and mediated through licensed agencies, relocation to other coastal communities is generally feasible without requiring additional administrative arrangements from the Project.

Interviewees also noted that foreign workers do not typically engage with local multicultural family centres, nor do they express a need for translation services. Instead, project-related information such as construction schedules or navigational restrictions could be effectively communicated through vessel captains. Across both qualitative and quantitative findings, there were no indications of social tension, safety concerns, or public hygiene issues associated with the presence of foreign crew members.

Residents' familiar with past renewable energy developments in the area, including solar and onshore wind, also anticipated that any future influx of external personnel would primarily involve technical staff, rather than general laborers. As such, they did not expect significant disruption to daily life or community dynamics. Some local fishers suggested that, in the event of temporary employment displacement, coordination with placement agencies could help facilitate job transfers for foreign crew, supporting both continuity in regional fisheries and fair treatment of foreign labourers.

# 6.4 INFRASTRUCTURES

#### 6.4.1 ROAD

This Section provides description on the road infrastructure status for the onshore direct AoI. The Project onshore substation is located immediately adjacent to the national Road #77, a paved two-way road (marked as yellow line in Figure 6-3). The Road #77 branches out to smaller roads.



FIGURE 6-2 NATIONAL ROUTE OF SONGAM-RI



Source: Naver Map Street View

FIGURE 6-3 TYPICAL VIEW OF ROAD #77

# 6.4.2 WASTE TREATMENT FACILITIES

One intermediate waste treatment facility (i.e. incinerator with waste separation operation) is situated within Hongnong-eup of Yeonggwang-gun (i.e. within the onshore indirect AoI).

For final waste treatment facility (i.e. the landfill), the total landfill capacity of Yeonggwang-gun is 144,155m<sup>3</sup>, while 99,752 is already has been utilised as of 2022<sup>38</sup>.

#### 6.4.3 WASTEWATER TREATMENT FACILITIES

There are in total four wastewater treatment facilities within the onshore indirect AoI (Yeonggwang-gun) of which two wastewater treatment facilities are situated within Baeksueup and Yeomsan-myeon (i.e. situated close to onshore substation). Both Baeksu-eup and Yeomsan-myeon facilities have a treatment capacity of  $500 \, \mathrm{m}^3/\mathrm{day}$  with the treatment efficiency of 96.8%. These waste treatment facilities are considered sufficient in relation to Project activities and will be able to cover all of Project's generated wastes with no disturbances or impacts to the community.

# 6.5 VULNERABLE GROUPS

This Section discuss regarding the vulnerable groups near the Project area with focus on the onshore direct AoI. Vulnerable groups such as physically challenged individuals, elderly, and women will be discussed.

### 6.5.1 PHYSICALLY CHALLENGED INDIVIDUALS

In 2022, 9.77% of the Yeonggwang-gun population accounted for the disabled population. Among the population, 36.26% were classified as severely disabled.

In 2022, Yeonggwang-gun has in total 5,027 disabled persons registered, which accounts for 9.77% of the total population. Among the 5,027 disabled persons, 1,823 persons were classified as severely disabled, which is about 36.26% of the total disabled population<sup>39</sup>.

The below Table 6-36 indicates the number of disabled populations in Nakwol-myeon and Yeomsan-myeon. As for Yeomsan-myeon, there were 461 registered disabled people and 44 in Nakwol-myeon.

TABLE 6-36 REGISTERED DISABLED PERSONS IN YEONGGWANG-GUN IN 2022

TOTAL	Physical	Visual	Auditory	Language	Intellectual	Brain lesion
5,027	2,595	432	685	40	516	332
	Source: Yeonggwang-gun Statistical Yearbook, 2023					

<sup>38</sup> Yeonggwang-gun Statistical Yearbook, 2023

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<sup>39</sup> Yeonggwang-gun Statistical Yearbook, 2023

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TABLE 6-37 REGISTERED DISABLED PERSONS IN NAKWOL/YEOMSAN-MYEON

Area	Disability Type	Grade 1 (M)	Grade 1 (F)	Grade 2 (M)	Grade 2 (F)	Grade 3 (M)	Grade 3 (F)	Grade 4 (M)	Grade 4 (F)	Grade 5 (M)	Grade 5 (F)	Grade 6 (M)	Grade 6 (F)
Yeomsan	Physical	2	0	14	8	22	14	18	63	46	57	29	32
-myeon	Visual	п	22	0	2	0	0	1	2	1	7	7	7
	Hearing	П	0	Ŋ	8	8	П	2	3	8	9	3	8
	Speech	0	0	0	0	0	0	0	0	0	0	0	0
	Intellectual	3	9	9	12	1	4	0	0	0	0	0	0
	Brain Lesion	9	7	4	က	2	m	m	Ω	2	2	0	0
	Self-Reliance	П	0	0	0	0	0	0	0	0	0	0	0
	Heart	0	0	0	1	0	0	0	0	0	0	0	0
	Renal	н	0	0	0	0	0	0	0	0	0	0	0
	Respiratory	0	0	0	0	0	0	0	0	0	0	0	0
	Liver	0	0	0	0	0	0	0	0	0	0	0	0
	Facial Deformity	0	0	0	0	0	0	0	0	0	0	0	0
	Epilepsy	0	0	0	0	0	0	0	0	0	0	0	0
Nakwol-	Physical	н	0	н	0	2	2	m	2	М	m	N	0
myeon	Visual	н	0	0	0	1	0	0	1	2	2	1	0
	Hearing	н	0	1	0	1	П	1	0	-1	0	П	0
	Speech	<del>, 1</del>	0	0	0	0	0	0	0	0	0	0	0
	Intellectual	Н	0	1	0	0	0	0	0	0	0	0	0
	Brain Lesion	0	0	0	0	1	0	0	0	0	0	0	0
	Physical	1	0	0	0	0	0	0	0	0	0	0	0
	Visual	0	0	0	0	0	0	0	0	0	0	0	0
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Source: Yeonggwang-gun\_Registration Status of Persons with Disabilities 201840

<sup>40</sup> https://www.data.go.kr/data/15025251/fileData.do

### 6.5.2 ELDERLY INDIVIDUALS

According to the Yeonggwang-gun Statistical Yearbook 2023, approximately half of the total population is aged at or over 65 in Nakwol-myeon and Yeomsan-myeon. Nakwol-myeon has in total five associations representing elderly population, in Sangnakwol-ri, Hanakwol-ri, Songi-ri, Wolchon-ri and Singi-ri, respectively. Yeomsan-myeon has associations representing elderly and female population. The number of elderly populations over 65 in Yeomsan-myeon is 1,783 and in Nakwol-myeon, its 214 people.

TABLE 6-38 WELFARE FACILITY FOR ELDERLY IN YEONGGWANG-GUN IN 2023

Region	Population ag years and abo		Medical Welfa elderly		Community Facility for	
	Population	(%)	Facility No.	Users No.	Facility No.	Users No.
Yeonggwang-gun	15,999	30.65%	10	300	24	997
Nakwol-myeon	235	38.34%	-	-	-	-
Yeomsan-myeon	1,835	48.10%	-	-	1	32

Source: Yeonggwang-gun Statistical Yearbook, 2023

#### 6.5.3 WOMEN

In Yeonggwang-gun, approximately 50% of the population is female and in Nakwol-myeon, approximately 37% of the total population is female whereas Yeomsan-myeon is around 50%. Table 6-39 indicates female population in Yeonggwang-gun as of 2023.

Yeonggwang-gun offers counselling service for violence against women, and in 2022, there were in total 1,139 cases recorded for violence counselling (refer to Table 6-40).

TABLE 6-39 FEMALE POPULATION IN YEONGGWANG-GUN IN 2023

Danier	Total population	Female p	opulation
Region	No.	No.	Percent
Yeonggwang-gun	53,182	26,473	49.78%
Nakwol-myeon	614	232	37.79%
Yeomsan-myeon	3,885	1,967	50.63%

Source: Yeonggwang-gun Statistical Yearbook, 2023

TABLE 6-40 AMOUNT OF VIOLENCE AGAINST WOMEN COUNSELING REQUESTED IN YEONGGWANG-GUN, 2022

Year	Violence Against Women Recorded for Counselling					
rear	Total	Domestic Violence	Sexual Violence			
2018	785	785	-			
2019	714	714	-			
2020	748	642	106			
2021	1,101	960	141			
2022	1,139	1,039	100			

Source: Yeonggwang-gun Government, 2024

While the cases of counselling have been gradually escalated during last five years, the actual sexual harassment/violent crime of Yeonggwang-gun is considerably low compared with the national average as per the crime statistics published by the Korean National Police Agency in 2023. Table 6-41 shows the sexual harassment/violent crime statistics during 2023 in each of the local administrative districts (i.e. at si/gun level).

TABLE 6-41 SEXUAL HARASSMENT/VIOLENT CRIME STATISTICS

Unit: Cases per year

Category	Average by Administrative Division (gun and gu) (2023)	Yeonggwang-gun (2023)
Rape	22.2	0
Quasi-Rape	3.9	1
Indecent Assault	70	13
Others	0.8	0

Source: Crime statistics published by the Korean National Police Agency, 202341

# 6.5.4 ECONOMICALLY VULNERABLE INDIVIDUALS

Since 2019, distinctions by "eup" and "myeon" for recipients of the National Basic Livelihood Security Benefit, as included in the Yeonggwang-gun Statistical Yearbook, have been removed. The Yeonggwang-gun Statistical Yearbook 2023 reports that the total number of basic livelihood security recipients in Yeonggwang-gun was approximately 3,349, comprising 3,224 general recipients and 125 facility recipients. This represents about 6.3% of Yeonggwang-gun's total population, which is approximately 1.6% higher than the national average of basic livelihood security recipients, at around 4.7%.

As a result of interviews with the Nakwol Youth Association and the Anma Youth Association, the specific number of basic livelihood security recipients in Nakwol-myeon and Yeomsan-myeon could not be identified due to privacy concerns. However, it was observed that most recipients were unemployed and actively seeking work.

TABLE 6-42 COMPARISON OF NATIONAL BASIC LIVELIHOOD SECURITY RECIPIENTS IN YEONGGWANG-GUN AND NATIONWIDE

Туре	Number of Recipients in Yeonggwang-gun	Number of Recipients Nationally
General Recipients	3,224	2,359,228
Facility Recipients	125	92,230
Total Recipients	3,349	2,451,458 <sup>42</sup>

<sup>41</sup> 데이터 상세 | 공공데이터포털

<sup>42</sup> 

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Туре	Number of Recipients in Yeonggwang-gun	Number of Recipients Nationally
Total Populations	53,182	51,692,272 <sup>43</sup>
Recipients Percentage	6.29%	4.74%

#### 6.5.5 STAKEHOLDER INTERVIEW INSIGHT

In May 2025, interviews were conducted in communities with a range of local stakeholders, including village leaders, women's associations, public health clinic staff, the Saemaul Association (a grassroots rural development organization), and the Multicultural Family Support Center. These engagements confirmed the presence of key vulnerable groups within the project's area of influence, most notably elderly individuals, women, and single-person households, particularly those with limited access to external networks.

Findings from the structured household survey supported these observations. In Anma-do, 72% of surveyed households included at least one elderly member aged 65 or above, while several households were composed of either single occupants or elderly couples. In Songam-ri, elderly representation was also significant, though multigenerational households were somewhat more common. No respondents reported severe disabilities requiring daily assistance, and no vulnerable individuals in critical health or economic distress were identified during the assessment.

While the topic of multicultural families was raised in institutional interviews, field-level consultations and household surveys confirmed that no multicultural households currently reside in the directly affected communities. The Multicultural Family Support Centre clarified that its services are focused on marriage-based immigrants and their children, and that it is not functionally equipped to support single foreign workers or seasonal labourers such as fishing crew members. As such, no specific engagement was undertaken with multicultural residents during this assessment.

Public health staff in Anma-do noted that a majority of residents, due to age and past physical labor, suffer from common musculoskeletal conditions, particularly joint and back pain. While they welcomed the potential for improved healthcare access through future project-related investment, they also noted that night-time emergency care remains limited in the area. However, no participants reported health-related vulnerabilities that would pose a critical barrier to participating in project engagement or adaptation.

Community-level safety was consistently viewed as stable. Across all interviews, participants stated that there had been no known incidents of violent crime or sexual harassment in recent years, and no related concerns were raised during the consultations. However, based on the interview with the Women's association, it was confirmed by the representative that GBVH has been reported in the region, especially from the nuclear power plant.

Rather than expressing concerns about direct harm, many participants offered constructive suggestions on how to ensure inclusive engagement for vulnerable groups. These included the

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<sup>43</sup> 

use of visual materials and simplified verbal explanations, holding small group meetings within each village, and relying on trusted local representatives to disseminate information and collect feedback. Across all groups, there was broad consensus that a participatory approach tailored to local conditions would help avoid unintended social exclusion and ensure that offshore wind development proceeds in a manner that is both transparent and respectful of community dynamics.

# 6.6 FIELD-BASED SOCIOECONOMIC SURVEY RESULTS AND INSIGHT

This section presents consolidated findings from the field-based socio-economic surveys conducted in May and June 2025. These included both a structured household survey targeting directly affected communities, and a series of Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with various stakeholder groups. Together, these findings offer localized, stakeholder-informed insights that enhance the accuracy and representativeness of the socio-economic baseline presented in this chapter.

#### 6.6.1 COVERAGE AND METHODOLOGY

A total of 34 qualitative interviews were conducted through 21 FGDs and 13 KIIs with a wide range of stakeholder groups. These included fisheries associations, village leaders, women's associations, foreign workers, landowners, contract farmers, and representatives from local institutions such as the Fisheries Cooperative and Health Centre. The interviews were based on semi-structured guides tailored to each group and focused on topics such as livelihood patterns, perceptions of the offshore wind project, anticipated impacts, and vulnerability.

In addition to the qualitative interviews, a structured household survey was implemented in Anma-do and Songam-ri, where project-related impacts are expected to be most direct. The survey covered 18 households in Anma-do (20% of all households) and 8 households in Songam-ri (21.6%), along with foreign migrant workers, landowner, and contract farmer. Stratified random sampling and structured questionnaires were used to ensure comparability and consistency.

#### 6.6.2 KEY THEMES FROM FGDS AND KIIS

The qualitative interviews revealed several consistent but manageable concerns across stakeholder groups.

In offshore fishing communities such as fishers expressed concerns about reduced access to traditional fishing grounds due to turbine installation, as well as potential seabed disturbance and increased marine traffic during construction. Some also noted the possibility of collisions with construction vessels and floating debris. However, many acknowledged that such concerns could be mitigated through proper route designation, notification systems, and coordination with fishing cooperatives. Several fishers emphasized the need for annuity-based or community-level compensation rather than one-off payments.

In Songam-ri, residents—many of whom rely on farming and salt production—stressed the importance of maintaining uninterrupted access to farmland. Specific concerns included dust generation from construction vehicles, noise, and temporary road obstructions. Salt farmers voiced apprehensions about potential particulate matter affecting salt beds. However, they also indicated that these risks could be managed through basic mitigation measures such as dust barriers and wheel washing facility. Notably, a number of participants expressed interest in the

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project's potential to bring infrastructure upgrades, local job opportunities, and increased land value, provided that communication remains consistent and benefits are equitably distributed.

Among vulnerable groups such as elderly residents, women, and foreign migrant workers, the most commonly cited issue was limited access to information and decision-making processes. Language barriers and the technical nature of previous public briefings were mentioned as obstacles to meaningful participation. Recommendations included providing information in simpler language, offering oral briefings at village centres, and using interpreters where appropriate. While these barriers exist, most vulnerable group participants did not report current or anticipated direct harm to their daily lives but expressed a desire for improved communication moving forward.

Overall, while a range of community-level concerns were identified during the interviews, most were associated with potential inconvenience or uncertainty rather than direct, sustained harm. Stakeholders emphasized their willingness to cooperate with the Project, particularly if engagement remains inclusive and mitigation and benefit-sharing measures are transparently implemented.

Landowner who had sold part of their farmland for the onshore substation reported that the land sale included approximately 40% of the farmland previously used for rice cultivation, which accounted for half of the household's total income. The other half, derived from salt farming, remains unaffected and continues to be actively maintained. As a result, while the sale initially raised concerns regarding farming operations, the actual income impact was limited to around 15%, due to the acquisition of additional farmland and continued access to remaining plots. The transaction was voluntary and primarily motivated by family considerations, particularly retirement planning for the previous generation. The landowner considered the financial compensation to be adequate and noted that assistance was also provided for dismantling on-site facilities. The land acquired by the Project consisted of multiple shares held by 11 different landowners. Among them, only two individuals, who are from the same household (mother and son), were actively farming the land at the time of acquisition. Therefore, the interview effectively captures the perspectives of those directly affected in terms of both land use and livelihood disruption.

A contract farmer who had cultivated the project-acquired land under an agricultural agreement for approximately ten years explained that the land was not leased, but farmed under a shared-income arrangement. The individual owns large-scale farming equipment and regularly provides farming services on neighbouring land, including plots owned by other residents. Despite the loss of access to the project site, the farmer continues to operate a salt farm, cultivates personally owned farmland, and is actively seeking new contract farming opportunities. As a result, the income impact was considered minor and temporary, without causing significant disruption to the household's overall livelihood. Nevertheless, the interviewee emphasized the importance of livelihood support such as employment linkage or technical training and expressed the desire to be included in future engagement and planning processes.

Foreign migrant workers reported working in Anma-do from March to November and returning to their home countries during the off-season. Their employment is based on short-term contracts, and they hold valid work visas, allowing them to transfer to other coastal fishing areas on the mainland if necessary. Employment arrangements are typically made through the Suhyup, rather than through direct hiring by local vessel owners. While they expressed

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concern about potential job loss if fishing activities in Anma-do decline, they also acknowledged the possibility of relocating to other fishing communities. However, due to language barriers, they had limited access to accurate information about the Project. Accordingly, they requested translated materials, interpreters, and support for job transitions, including assistance in identifying alternative fishing-related employment opportunities.

#### 6.6.3 KEY FINDINGS FROM STRUCTURED HOUSEHOLD SURVEYS

The structured household survey was conducted exclusively in Anma-do and Songam-ri, which are the two communities expected to experience the most direct socio-economic impacts from the Project. Anma-do is located adjacent to the offshore wind turbine area and hosts the majority of local fishers, while the onshore substation and transmission cable corridor are located in Songam-ri, where land acquisition and physical access concerns are concentrated. These two locations were therefore selected to capture representative household-level data from both marine-based and land-based affected populations.

In Anma-do, the structured household survey revealed a demographically aging community, with 72% of surveyed households including at least one elderly member aged 65 or older. This trend indicates a relatively high level of age-based vulnerability, as many residents have either retired from active fishing or maintain limited physical capacity for labour-intensive activities. While 44% of households identified fishing as their primary or sole income source, a significant proportion (50%) relied primarily on non-labor income such as national pensions or basic livelihood support programs. This indicates a heavy dependence on public welfare systems, particularly among elderly or single-person households.

Household income levels varied widely. About five of the surveyed households reported annual earnings of less than KRW 10 million, often reflecting fixed or minimal income from pensions alone. Meanwhile, six households reported earnings between KRW 10–30 million, primarily from small-scale fishing or secondary jobs, and three households reported higher income levels exceeding KRW 30 million, with one household exceeding KRW 100 million, supported by diversified income streams such as guesthouse rentals or multiple fishing licenses. In addition to their primary livelihood activities, many residents supplemented their income through handgathering, subsistence farming, seasonal labor, or operating small guesthouses. This illustrates a livelihood model that blends traditional resource-based activities with services and informal economy.

In Songam-ri, all surveyed households were engaged in rice cultivation as their main livelihood, reflecting the area's inland agricultural character. A number of respondents (four out of eight) also engaged in salt farming, typically in small family-owned pans, and three households reported supplemental income from seasonal fishing. Unlike Anma-do, Songam-ri showed a more even income distribution. While two households reported annual incomes below KRW 5 million, mainly elderly resident's dependent on pensions, others ranged between KRW 10 and 50 million. One diversified household reported income exceeding KRW 100 million, drawing from multiple sources including farming, salt production, and occasional fishing. However, another household cited high operational costs from land leasing and machinery maintenance that reduced their net income substantially, despite gross earnings.

The overall demographic in Songam-ri also skewed older, though slightly less than in Anma-do. Elderly residents were present in at least three of the eight households, and several families expressed concerns about generational succession in agriculture. While land ownership

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remains stable, income volatility due to seasonal production and crop market prices was mentioned as a risk factor.

These findings suggest that both communities are economically reliant on natural resource-based livelihoods but with varying levels of income diversity and vulnerability. Anma-do shows greater dependence on fisheries and public assistance, with pronounced aging and social isolation, whereas Songam-ri maintains a stronger agricultural base, with some capacity for income diversification but also exposure to production cost risks. Both communities exhibit structural characteristics that require tailored livelihood support and inclusive benefit-sharing mechanisms in the context of project impacts.

## 6.6.4 INTEGRATION AND USE OF FINDINGS

The insights from the household surveys and stakeholder interviews have been incorporated into the broader socio-economic analysis presented throughout this chapter and form a key basis for the impact assessment in Chapter 7. They also support the development of mitigation and compensation measures presented in the LRP, particularly with respect to vulnerable populations and localized risks.

These field-based results complement secondary data by providing firsthand perspectives from those most likely to be affected by the Project. They also support a more adaptive, inclusive approach to stakeholder engagement and long-term community benefit planning.

# 7. IMPACT ASSESSMENT AND MITIGATION

The following section presents the outcomes of the assessment of potential social impacts. For each identified potential impact, relevant background to the impact is provided, along with the mitigation and management measures, and a determination of the significance of the impact.

The social aspects that were subject to the impact assessment were selected during the scoping stage and are summarized below:

- Community;
- Workers;
- Fisheries;
- Supply Chain;
- · Vulnerable Community; and
- Socio-Economic

Refer to Section 5 for full details on scoping process.

## 7.1 COMMUNITY

Large scale development projects often present a range of community health, safety and security hazards. These hazards can be present or linked to the use of presence of heavy machinery, new structures and the transport of goods (both onshore and offshore), materials and workers within the Project AoI. This section assesses the potential adverse impacts to the community members on their health, safety and security, focusing on the ones within the onshore direct AoI.

Given the scale and nature of the Project (especially during the construction phase), adverse impacts to health, safety and security of the individual community members cannot be ruled out.

## 7.1.1 SOURCE OF IMPACT

Potential sources of the community health and safety impacts identified during the SIA are provided in the following. The activities which may result in such health and safety impact could include onshore/offshore traffic impact, or adverse impact from noise emission, etc. The community members may experience exposure to communicable diseases and may experience health issues due to air quality impacts. As for security related matters, the security personnel use of abusive power and the excessive force of personnel can lead to infringements on the right to liberty and security.

## 7.1.1.1 ONSHORE TRAFFIC

The Project will involve temporary onshore construction activities including access road widening, substation construction, and export cable installation. These activities will require the movement of construction vehicles along rural roads within the onshore direct AoI, primarily in and around Songam-ri.

A small number of construction vehicles, estimated at approximately 6 to 10 heavy equipment units per day, are expected to be deployed during the peak construction period, which is anticipated to last approximately 6 to 8 weeks. These estimates are derived from the construction equipment plan provided in Table 7-1, which includes excavators, dump trucks,

rollers, and loaders for various construction segments. Most equipment will be used sequentially, not simultaneously, thereby limiting peak-hour traffic.

While the total distance of the onshore export cable alignment is relatively short (approximately 1.5 km), the access route runs adjacent to agricultural fields in Songam-ri. Stakeholder interviews conducted during the social baseline survey highlighted community concerns related to dust, noise, road damage, and increased traffic during the construction phase.

In addition, the Project has shared plans to widen the existing access road (parcel 313-1), which may require movement of construction machinery through narrow local roads. While space for widening is available within public land boundaries, the Project will conduct assessments during construction to avoid unintentional damage to adjacent farmland.

Standard mitigation measures will be implemented, including prioritizing construction vehicle operation to daytime hours, pre-notification to local communities, dust suppression, and installation of temporary signage to ensure traffic safety. The Project will also ensure protection measures for pedestrians near construction zones.

TABLE 7-1 CONSTRUCTION EQUIPMENT PLAN

Construction	Equipment	Specification	No. of Deployed
Transmission Line	Excavator	0.7m <sup>3</sup>	1
	Roller 1.0ton		1
Substation	Backhoe	0.7m <sup>3</sup>	1
	Roller	1.0ton	1
	Dump Truck	15.0ton	1
	Loader	3.5m <sup>3</sup>	1
	Grader	3.6m	1

Source: Final Regulatory EIA dated January 2023

## 7.1.1.2 ONSHORE NOISE

Table 7-2 are the noise impact assessment result of the Regulatory EIA. The assessment was conducted assuming that all deployed equipment operates at the shortest distance from the facility and from the same location simultaneously, that expects to have direct noise impacts.

The result of the noise impact assessment concluded that the noise levels at the receptors or communities will be below the Environmental Target Standard of 65 dB(A) that are stipulated under the Framework Act on Environmental Policy.

For noise prediction in this Project, the regulatory standard of 65 dB(A) for residential areas (construction site noise) and 60 dB(A) for livestock sheds (as defined by the environmental dispute compensation standard) were applied. As a result, the noise levels during HDD construction were predicted to be 39.8-49.5 dB(A), for substation construction 42.5-54.2 dB(A), and for transmission line construction 42.4-50.4 dB(A), all of which are expected to meet the applicable national standards.

In addition, noise from the Wind Turbine Generators (WTGs) was assessed as background noise according to the national EIA. The assessment also evaluated potential impacts on nearby livestock facilities and concluded that no significant impact is expected.

Furthermore, these predicted noise levels are consistent with the IFC General EHS Guidelines, which recommend a daytime residential limit of 55 dB(A) and identify a 3 dB increase over ambient background as a threshold for concern. As the Project's predicted noise levels are below both national and international limits, no additional mitigation measures are deemed necessary beyond those already planned.

TABLE 7-2 NOISE LEVEL DURING CONSTRUCTION PHASE

Noise- Sensitive Facility	Distance (m)		Expected Noise Level		Environmental Target Standard dB(A)
Residential Area 1	305	389	54.2	46.7	Under 65
Sangam Village	422	509	51.7	44.7	
Residential Area 2	599	293	49.0	48.9	
Livestock Facility 2	1,217	358	43.5	47.4	
Living Facility 3	542	680	49.8	42.4	
Living Facility 4	538	600	49.8	43.4	
Songam Village 2	963	427	45.6	46.0	
Livestock Facility 3	861	242	46.2	50.4	
Living Facility 5	1,267	403	43.2	46.5	
Livestock Facility 4	1,392	507	42.5	44.7	

Source: Final Regulatory EIA dated January 2023

## 7.1.1.3 ONSHORE AIR QUALITY

Due to construction activities with heavy machinery equipment use, there is a potential risk of air quality issues which can impact the community particularly in terms of increased levels of dust such as  $PM_{10}$ ,  $PM_{2.5}$ ,  $NO_2$  which are the air pollutants that are generated by construction activities. Table 7-3 indicates the pollutant emissions by source during construction.

TABLE 7-3 POLLUTANT EMISSIONS AT SOURCE (CONSTRUCTION)

<b>Emission Source</b>	PM	-10	PM-2.5		NO <sub>2</sub>	
Construction Equipment Operation	0.0613	0.0438	0.0122	0.0454	0.2314	1.0217
Dump Trucks	0.0000	0.0094	0.0000	0.0025	-	-
Other construction equipment operation	0.0564	0.0568	0.0150	0.0151	-	-
Other operation process	0.0003	0.0003	0.0001	0.0001	-	-
Total	0.1180	0.1148	0.0273	0.0631	0.2314	1.0217

Source Final Regulatory EIA dated January 2023

The air emission estimation was taken place in 12 potential receptors near the Project. The 12 areas include the followings.

- Residence 1;
- Songam Village 1;
- Residence 2;
- Livestock Area 2;
- Residence 3;
- Residence 4;
- Songam Village 2;
- Livestock Area 3;
- · Residence 5; and
- Livestock Area 4

According to the assessment undertaken during the Regulatory EIA, it is anticipated that  $PM_{10}$  and  $NO_2$  levels will meet the relevant environmental standards at all locations. Two locations are expected to experience escalated  $PM_{2.5}$  level beyond the applicable regulatory air quality baseline standard as these two locations were already had high baseline, but the contribution by the Project activities is assessed to be close to none (i.e.  $PM_{2.5}$  incremental concentration of  $0.1~\mu g/m^3$ ). No  $PM_{2.5}$  concentration increment is expected at the rest of the locations.

The estimated vehicle movement during peak construction (6–10 heavy vehicles per day) has been reviewed against the Regulatory EIA assumptions, and is considered to fall within the modeled emission scenarios reflected in Table 7-3 pollutant emissions at source (construction). Therefore, no additional increase in predicted air pollutant concentrations is expected as a result of updated traffic estimates. The assessment remains valid, and the project contribution to  $PM_{2.5}$ ,  $PM_{10}$ , and  $NO_2$  levels is considered negligible.

Operation of the vessels during the lifecycle of the Project may have adverse impact to the community via due to increased vessel traffic and health and safety impacts from the potential vessel collisions or accidents. Risk of vessel collisions may be escalated during the extreme weather conditions, and the vessels used by the Project may add the complexity around the port increasing the risks of safety.

The Maritime Traffic Safety Assessment dated August 2023 prepared by Mokpo National Maritime University includes the marine traffic congestion assessment, and simulation for navigational safety assessment within the WTG Area. Three routes have been assessed in consideration of the construction completion of the WTGs, and the predicted congestion during the peak (i.e. from 6:00pm to 7:00pm) for the first route would result in 13.32%, and 15.86% congestion increase during the peak (i.e. from 9:00pm to 10:00pm) for second and third routes, which in within the Allowable Marine Traffic Congestion Value. The simulation for navigational safety assessment within the WTG Area concluded that the navigable waterway (excluding the access restriction area near the WTGs) was found to be relatively wide compared to the size of the 30GT and 10GT class vessels.

#### 7.1.1.4 COMMUNITY HEALTH

The exploitation of workers and failure to ensure occupational health and safety standards can have indirect but significant consequences for surrounding communities, particularly through public health risks. To prevent such outcomes, the Project will enforce a strict policy prohibiting the exploitation of contracted workers, including any form of child or forced labour. All workers, especially foreign workers must be treated fairly and provided with adequate living conditions, including access to sanitation facilities, clean water, and health services. These standards will be embedded in contractor obligations through the Project's Code of Conduct (CoC), which will be contractually extended to all contractors and subcontractors.

Although the Project does not plan to construct centralized worker camps, it anticipates the peak influx of approximately 600 workers, who will be housed across local communities. As such, proactive measures will be adopted to manage potential community health risks, including pre-employment health screening, regular health monitoring, and hygiene protocol enforcement for all workers.

In accordance with the Employer's HSSE requirements, all workers accessing the offshore assets must meet the minimum offshore medical examination standard, which has been set as the OGUK medical check. Equivalent examinations recognized under the Hardanger agreement (e.g., OEUK, NOGEPA, OLF) are also accepted. These requirements apply to Employer's Personnel, Related Contractor's Personnel, and Contractor's Personnel.

In accordance with existing contractual requirements, all workers are subject to mandatory health screening prior to employment and may be required to undergo periodic health checks depending on their assignment and duration of stay. These medical fitness requirements are enforced through the Project's health and safety compliance protocols.

Similarly, community members residing in the project area are also subject to routine health checkups under Korea's national healthcare and public health policies, particularly for elderly individuals and low-income groups. These existing systems provide an institutional baseline for health monitoring that can be further supplemented through project-specific collaboration with local health authorities.

To further mitigate the risk of communicable disease transmission, the Project will collaborate with local health institutions to develop and monitor relevant community health indicators. These efforts will be accompanied by clear public communication and feedback channels at the community level.

In addition, gender considerations, including the prevention of discrimination and the protection of vulnerable individuals, will be incorporated into community health and safety planning. The project will ensure that engagement and benefit-sharing activities do not reinforce existing gender-based disparities or place specific groups at increased risk.

Table 7-4 presents the current forecast of peak workforce size and duration. These projections are used as the basis for public health preparedness planning and the implementation of corresponding mitigation measures.

TABLE 7-4 ESTIMATED MANPOWER

Activities	Expected Peak Manpower	Expected Peak Weeks	Expected Start of the Week in Peak
Pin-pile	200	10	2Q 2027
Jacket	200	10	2Q 2027
Inter Array Cable	Transport and Installation Vessel Crew: 80 to 100 Office Support/ Management Teams 20 to 60	40	1Q 2027
WTG	200	30	Q1 2028~Q3 2028
Export Cable	Transport and Installation Vessel Crew: 150 to 200 Office Support/ Management Teams 20 to 60	30	1Q 2027
Offshore Substation	200	16	4Q 2027
Onshore Substation & Export Cable	70 ~ 100	16	2Q~3Q 2027
Transition Joint Bay (Offshore Works)	Site Team: 10 to 20 Office Support/ Management Team: 5 to 10	8	1Q 2027

Note: Above estimations are subject to change

#### 7.1.1.5 SECURITY

Mismanagement of security activities may result in adverse impact to the communities. It is currently expected that AWC will not be undertaking security activities themselves, but to subcontract the service during both construction and operation phase. Private companies can designate the security company but cannot use or conduct any physical act to personnel of which shall be a violation of the AWC's security policies and also the national regulation.

## 7.1.2 EMBEDDED CONTROLS

Below are the mitigation/control measures which the Project has committed already under the Regulatory EIA:

- **Noise Level**: According to the Regulatory EIA Section 8.5.2 the below noise impact related measures were identified:
  - Project will comply with the [Guidelines for Noise and Vibration Management at Construction Sites], from the Ministry of Environment, dated 2006 to manage and minimize the noise impacts.

- In addition, the Project's noise management approach aligns with the IFC General EHS
  Guidelines, including a 55 dB(A) residential daytime limit and consideration of 3 dB
  increase over background as a potential threshold for action.
- Management of work process with appropriate working hours that construction activities that generate noise will be avoided during quiet hours such as late night if possible. During foundation works, the volume of earthwork will be planned will be planned efficiently to prevent concentrated use of equipment and ensure proper management of the entire process.
- As of speed limit, drivers will be instructed to limit their speed to within 20 km/hr (in accordance with Article 43 of the Air Quality Conservation Act and Annex 14 of Article 58, Paragraph 4 of the Enforcement Rule, revised on April 3, 2020) within construction area, and the use of horns will be prohibited.
- As a noise and vibration reduction measure for transport vehicles, vehicle deployment will be appropriately staggered to prevent an excessive concentration of transport vehicles, thereby minimizing the impact of noise and vibration caused by transport vehicles.
  - The Project will use low-vibration equipment, minimization of the number of equipment used per work process to the maximum extent, and if necessary, prior notification to residents before using equipment that generates high level of vibration and noise.
- Air Pollutants: The Project, in accordance with the Clean Air Conservation Act Enforcement Rule Article 58 to mitigate the risks of air pollutants to sensitive receptors. Additional measures include:
  - Appropriate mitigation measures will be implemented during construction to reduce emissions of air pollutants, control dust generated by heavy equipment, and minimise the occurrence of large-scale air pollutants. This is especially important given the estimated 6–10 heavy vehicles per day during peak construction. These estimates remain within the modelled emissions of the Regulatory EIA, and the Project will ensure dust suppression is responsive to daily weather and traffic conditions.
  - There will be periodic spraying of water. The focus areas will be dusting prone areas, entrances, and exits and depending on the level of dust, there will be additional spraying of water.
  - The Project will make compliance with speed limits regulations for construction vehicles that there will be signs of speed limits at the entrance at the site. Through mandatory training for vehicle operators, the speed limit for construction equipment and vehicles within the construction zone will be restricted to 20km/hr or below. This plan is to aim a low speed of around 20km/hr not only to reduce dust but to ensure the safety of passing vehicles.
  - o Installation of vehicle washing facilities that the Project will install vehicle washing facilities at the entrance and exit areas and the management personnel will be assigned to oversee operations and ensure proper maintenance of the facilitations. Such installation is indicated in the Article 58 Clean Air Conservation Act Enforcement Rule where it states about "Standards for Facilities and Measures Necessary to Suppress Dust Generation" (revised on April 3, 2020).
- Maritime Traffic Safety: The Project conducted the Maritime Traffic Safety Assessment in accordance with the Maritime Safety Basic Act and the Maritime Traffic Safety Act,

designed to assess the impact of the Project maritime traffic. The assessment includes consideration for vessel navigation and safety. The Project has been guided by the Ministry of Ocean and Fisheries of the following mitigation measures as for Maritime Traffic Safety which:

- Will establish a dedicated monitoring centre to oversee the WTG Area (in additional to the Vessel Traffic Service (VTS) Centre), in an effort to providing the safety of vessels entering the area or navigating in the surrounding waters of the WTG Area.
- Lighting will be installed on all WTGs to provide safety in accordance with the enhanced guidelines for the installation of navigational aids; and
- Will install the appropriate navigational aids upon the consultation with the Department of Navigational Aids.
- Grievances from vessel owners will be able to collect through established Grievance Mechanism.
- Community Health Managements: The EPC Contractors will need to establish their
  activity specific Safety Management Plan as per the Construction Technology Promotion
  Act, which will also include aspects of the communicable diseases control. Respective
  Safety Management Plan will be established once relevant EPC Contractors join the Project.
  Furthermore, AWC has established the Project specific ESMS that will allow the Project to
  monitor E&S performance of the Project including the management of community health
  and/or communicable diseases control/management. Furthermore, the ESMS will include
  an annual internal audit to make sure ESMS and all relevant procedures/plans are
  adequately implemented.
- **Grievance Mechanism:** AWC has established the Grievance Mechanism that is applied to both internal and external stakeholder including, but not limited to the Project personnel, and the stakeholders/local community. The Project has established a Project specific website with grievance page where the communities/stakeholders can freely express their concerns or grievances with respect to health and safety or the management of communicable diseases. Grievances can be communicated verbally in person on the first floor, which is expected to enhance the accessibility of the AWC office in Yeonggwang-gun. Additionally, paper grievance forms have been printed and are readily available in the lobby. Furthermore, ongoing engagement with the community will remain as AWC's priority, with informational brochures available to ensure the community stays informed and supported throughout the project.
- **Security Personnel:** The Project is expected to subcontract a licensed security service provider. The security service providers in the South Korea are thoroughly regulated by the Security Services Industry Act, which includes stringent regulatory mechanisms such as background checks for employees, mandatory periodic training, and equipment restrictions.<sup>44</sup> Private companies can designate the security company but cannot use or conduct any physical act to personnel violating AWC's security policies.

CLIENT: Anma Offshore Wind Energy Co., Ltd.

<sup>&</sup>lt;sup>44</sup> Sirens, batons, sprayers, safety shields, walkie-talkies, safety helmets, and stab-resistant vests that meet the specified standards in Appendix 5 of the Enforcement Rules of the Security Services Industry Act may be used.

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## 7.1.3 SIGNIFICANCE OF IMPACT

This Section provides impact assessment for each of the impact source.

#### 7.1.3.1 ONSHORE TRAFFIC

The likelihood of the communities within the onshore direct AoI being adversely impacted by onshore traffic is considered **Medium**, given the proximity of narrow rural roads to agricultural fields and the regular movement of construction vehicles during peak periods. The estimated vehicle movement is 6 to 10 heavy goods vehicles per day, over a period of approximately 6 to 8 weeks (refer to Table 7-1).

Although the overall volume of traffic is limited, the alignment passes through sensitive rural areas, and potential risks such as dust, noise, access disruption, or traffic-related accidents have been raised by local residents. In the event of an accident, the severity of impact could be significant, particularly if involving pedestrians, livestock, or vulnerable road users.

The Project has embedded a set of controls (see Section 7.1.2), including traffic signage, dust suppression, and community notification. With these measures in place, the magnitude of impact is assessed as **Minor**.

Therefore, the overall significance of onshore traffic impacts is assessed as **Minor**, considering both the likelihood and the controlled magnitude of the risk.

TABLE 7-5 IMPACT ASSESSMENT FOR COMMUNITY ONSHORE TRAFFIC

Impact	Impact on the community by the onshore traffic						
Extent	Household	Мує	eon	County	Korea		
	Impact is expected within the onshore direct AoI, including access road section Songam-ri and nearby agricultural areas.						
Duration	Temporary	Short	-term	Long-term	Permanent		
					8 weeks, after which operate unmanned.		
Scale	Negligible	Sm	all	Medium	Large		
	The scale of the i				ope of construction		
Frequency	Construction veh trips/day) during				ed 6–10 heavy vehicle		
Magnitude	Negligible	Minor	Moderate Major		r Positive		
	Magnitude is considered <b>Minor</b> due to proximity of roads to farmland, but embedded controls (dust suppression, traffic signage) will be implemented.						
Likelihood	Low	ı	1edium		High		
	While the total cable distance is short ( $\sim 1.5$ km), the use of narrow rural roads and proximity to sensitive receptors increases the likelihood of traffic-related impacts without proper mitigation. Hence likelihood is considered <b>Medium</b> .						
Significance	Negligible	Minor	Moder	ate Majo	Positive		

While the significance of the impact from onshore traffic and noise is assessed as **Minor**, the Project recognizes the importance of proactively managing risks such as road damage, access disruption, and pedestrian safety—particularly during peak construction periods.

Mitigation measures such as dust suppression, signage, and community notification are embedded in the Project's ESMS. In addition, a Traffic Management Plan Framework has been developed to guide the coordination of vehicle movements, protect sensitive roadside areas, and minimize nuisance to local residents and road users.

With these measures in place, the residual impact is expected to remain at Minor significance.

#### 7.1.3.2 ONSHORE NOISE

The likelihood of the communities within the onshore direct AoI being adversely impacted by onshore noise is considered **Medium**, based on the expected daily operation of 6 to 10 heavy construction vehicles over 6 to 8 weeks, as referenced in Table 7-1. In addition, ambient noise from existing wind turbines in the project area should be considered in evaluating cumulative acoustic exposure.

Although the area is not densely populated, the construction traffic will pass near agricultural lands and temporary disruption to daily life is expected due to construction-related noise, particularly during peak periods.

The magnitude of impact is assessed as **Minor**, with embedded controls in place, including noise suppression measures, and community notification procedures. Considering the cumulative effect with background operational noise, the Project will implement noise monitoring and ensure limits remain within regulatory thresholds.

Therefore, the overall significance of onshore noise impact is updated to **Minor**, reflecting stakeholder concerns, construction activity patterns, and mitigation commitments..

TABLE 7-6 IMPACT ASSESSMENT FOR COMMUNITY ONSHORE NOISE

Impact	Impact on the community by the onshore noise							
Extent	Household	Myeon	County	Korea				
			the onshore direct Il fields in Songam-r					
Duration	Temporary	Short-term	Long-term	Permanent				
	peak construction	activities. As the on	to approximately 6 shore infrastructure related impacts are 6	will be unmanned				
Scale	Negligible	e <b>Small</b> Medium		Large				
	The scale of the impact is considered small, as the noise will be limited to localized work zones.							
Frequency	and heavy machine	The frequency of the impact is moderate, given that construction vehicles and heavy machinery (approximately 6–10 per day) will be operating regularly during the designated construction period.						

Impact	Impact on the community by the onshore noise							
Magnitude	Negligible	Minor	Moderate	Major	Positive			
	The magnitude is assessed as <b>Minor</b> , based on the results of the Regulatory EIA (refer to Table 7-2), existing embedded controls, and the consideration of cumulative noise from background sources, including operational wind turbines in the area.							
Likelihood	Low	Me	edium	High				
	The likelihood of adverse noise impacts is considered <b>Medium</b> , as the proximity of receptors to construction activity, combined with vehicle traffic and ongoing ambient noise conditions, increases the chance of temporary disturbance during construction.							
Significance	Negligible	Minor	Moderate	Major	Positive			

While the significance of the impact from onshore noise is assessed as **Minor**, the Project has already incorporated embedded mitigation measures, including use of low-noise machinery where possible and advance community notification.

In addition, the Project has developed a Noise Management Plan Framework, which will include specific provisions to manage construction-related and vehicular noise as part of good international industry practice.

With these measures in place, the residual impact is expected to remain at Minor significance.

#### 7.1.3.3 ONSHORE AIR QUALITY

The likelihood of the communities within the onshore direct AoI being adversely impacted with respect to air quality is considered **Medium**, due to regular exposure to construction traffic and dust-generating activities in proximity to farmland.

The magnitude of impact is assessed as **Minor**, given the limited construction period, the minimal contribution to  $PM_{2.5}$  exceedance levels, and the presence of dust and emissions control measures.

Accordingly, the overall significance of the impact on air quality is assessed as **Minor**, reflecting the short-term nature of the works, the embedded mitigation measures, and the low incremental pollutant contribution predicted under the Regulatory EIA.

TABLE 7-7 IMPACT ASSESSMENT FOR COMMUNITY ONSHORE AIR QUALITY

Impact	Impact on the community with respect to air quality							
Extent	Household <b>Myeon</b> County Ko							
	The impact is expected to occur within the onshore direct AoI, particularly in Songam-ri and surrounding rural areas near the access road and construction zones.							
Duration	Temporary	Short-term	Long-term	Permanent				

Impact	Impact on the c	Impact on the community with respect to air quality						
	the onshore cons 8 weeks. As the o	The duration of impact is expected to be short-term, as it will occur only during the onshore construction phase, specifically over a period of approximately 6 to 8 weeks. As the onshore components will be unmanned during operation, there will be no air quality impact in the operational phase.						
Scale	Negligible <b>Small</b> Medium Larg							
	generate continue temporary construction The Project's reneas dust suppression While the total expension of the suppression of	The scale of the potential impact is considered small, as the Project will not generate continuous emissions, and the air emission sources are limited to temporary construction-phase activities.  The Project's renewable energy nature, combined with embedded controls such as dust suppression, contributes to keeping the impact limited in scale.  While the total export cable route is approximately 1.5 km, construction traffic is expected to be light and localized.						
Frequency	and equipment w Based on updated	The frequency of the impact is considered moderate, as construction vehicles and equipment will operate regularly over the construction period.  Based on updated estimates, approximately 6 to 10 heavy vehicle trips per day are expected during peak construction (refer to Section 7.1.1.1).						
Magnitude	Negligible	Minor	Moderate	Major	Positive			
	The magnitude of incremental contr no exceedance is The duration is shoot control, and equip	ibution of the expected for F ort, and embe	Project to PM <sub>2.5</sub> i PM <sub>10</sub> or NO <sub>2</sub> . edded controls—i	s negligible (i.e	e. 0.1 µg/m³), and spraying, traffic			
Likelihood	Low	М	edium		High			
	The likelihood of the community being adversely impacted by onshore air quality is considered <b>Medium</b> , due to the regular movement of vehicles and equipment, and the Project's proximity to sensitive receptors such as agricultural zones. Although the Regulatory EIA concluded that the air quality impact will be insignificant, the frequency of activity and proximity of receptors justify a more conservative likelihood rating.							
Significance	Negligible	Minor	Moderate	Major	Positive			

No additional mitigation measures are required as the impact significance for the community with respect to air quality is assessed as **Minor**, based on the limited contribution to pollutant concentrations and the embedded dust and emissions control measures already in place. However, the Project has developed an Air Quality Management Plan Framework as part of good international industry practice, which will provide further guidance on monitoring and controlling construction-related emissions.

With these measures in place, the residual impact is expected to remain at **Minor** significance..

### 7.1.3.4 OFFSHORE TRAFFIC

The likelihood of the communities be adversely impacted by the offshore traffic is **Low** as the vessel navigation simulation undertaken during the Maritime Traffic Safety Assessment dated August, 2023 indicated that the probability of collision (route deviation) in all scenarios

(Scenarios 2 and 3) was lower than the recommended probability for vessel route design safety.

The magnitude of the communities be adversely impacted by the offshore traffic is Major as the impact severity will be considerable should vessel traffic accidents to occur. However, the Project has already established series of embedded controls (refer to Section 7.1.2). Therefore, the magnitude of the communities be adversely impacted by the offshore traffic is adjusted to **Moderate**.

The significance of the communities be adversely impacted by the offshore traffic is considered **Minor** considering likelihood and the magnitude of the impact.

TABLE 7-8 IMPACT ASSESSMENT FOR COMMUNITY OFFSHORE TRAFFIC

Impact	Impact on the	Impact on the community offshore traffic						
Extent	Household		Myeon	County		Korea		
	Impact extent to County wide im		d within the of	fshore A	oI that can b	e considered as a		
Duration	Temporary	S	nort-term	Lon	g-term	Permanent		
	The duration of Project of 30 years		considered lon	g-term,	throughout t	he lifecycle of the		
Scale	Negligible		Small	M	edium	Large		
	The scale of the the WTG Area.	potential	impact is cons	sidered m	nedium consi	dering the scale of		
Frequency	The frequency of Assessment dat			or as per	the Maritim	e Traffic Safety		
Magnitude	Negligible	Minor	Moderate		Major	Positive		
	Project has already established series of embedded controls. Therefore, the magnitude of the communities be adversely impacted by the offshore traffic is considered <b>Moderate</b> .							
Likelihood	Low		Мес	lium		High		
	The likelihood of the communities be adversely impacted by the offshore traffic is <b>Low</b> as the vessel navigation simulation undertaken during the Maritime Traffic Safety Assessment dated August 2023 indicated that the probability of collision (route deviation) in all scenarios (Scenarios 2 and 3) was lower than the recommended probability for vessel route design safety.							
Significance	Negligible	Mino	<mark>r</mark> Mod	erate	Major	Positive		

No additional mitigation measures are required as the impact significance for the community offshore traffic was **Minor**. The significance of the residual impact remains **Minor**.

#### 7.1.3.5 COMMUNITY HEALTH

The likelihood is **Medium**, considering that the Project will not operate centralized construction camps or dedicated accommodations, resulting in increased interaction between workers and

nearby residents. This housing model reduces centralized oversight and may elevate exposure potential if not properly managed.

The magnitude of the community health be adversely impact by the Project is **Minor** as there are adequate number of public health centre facilities within the onshore direct AoI (refer to Table 6-21), and that the Project has already established series of embedded controls (refer to Section 7.1.2).

Taking into account both the likelihood and the magnitude, the significance of the impact on community health is considered **Minor**. This adjustment reflects the need for ongoing monitoring and engagement, even in the absence of worker camps, and recognizes that the responsibility for community health extends beyond direct infrastructure.

TABLE 7-9 IMPACT ASSESSMENT FOR COMMUNITY HEALTH

Impact	Impact on the co	Impact on the community health						
Extent	Household	Myeon	<b>Myeon</b> Co		Korea			
	Impact extent be e	xpected within	the onshore	direct AoI.				
Duration	Temporary	Short-ter	r <b>m</b> Lo	ng-term	Permanent			
	that are expected to Considering the on	The duration of impact will be only during the onshore construction activities that are expected to be temporary, which can be considered a short-term. Considering the onshore components will be operated unmanned, there will be no impact during the operation phase.						
Scale	Negligible	Small	1	1edium	Large			
	The scale of the po nature of the Proje		is considered	small conside	ring the size and			
Frequency	The frequency of the workers will be		ninor as the e	xposure of th	e communities to			
Magnitude	Negligible	Minor	Moderate	Major	Positive			
	<b>Minor</b> as there are onshore direct AoI,	The magnitude of the community health be adversely impact by the Project is <b>Minor</b> as there are adequate number of public health centre facilities within the onshore direct AoI, and that the Project has already established series of embedded controls.						
Likelihood	Low	Мес	dium		High			
	The likelihood is <b>Medium</b> , considering that the Project will not operate centralized construction camps or dedicated accommodations, resulting in increased interaction between workers and nearby residents. This housing model reduces centralized oversight and may elevate exposure potential if not properly managed							
Significance	Negligible	Minor	Moderate	Major	Positive			

The likelihood of community health impacts is considered **Medium**, as the Project will not operate centralized worker camps or dedicated accommodations. This housing model increases the potential for interaction between construction workers and local residents, and may elevate exposure to communicable diseases or social vulnerabilities if not properly managed.

To mitigate these risks, AWC has already implemented a series of preventive measures, including mandatory pre-employment health screening, regular health monitoring, coordination with local public health clinics, and the development of community health indicators for ongoing surveillance and accessible grievance mechanisms in multilingual will also be used to ensure residents—including foreign workers and vulnerable groups—can report concerns and access relevant information.

As a result of these embedded controls, the overall significance of community health impact is assessed as **Minor.** 

This reflects the Project's commitment to proactive health risk management, even in the absence of centralized accommodation, and recognizes that community health protection must extend beyond direct infrastructure considerations..

#### 7.1.3.6 SECURITY

South Korea's crime rates are generally lower than the average for Organization for Economic Cooperation and Development (OECD) countries. In particular, South Korea has a lower intentional homicide rate, standing at approximately 0.6 per 100,000 people, which is below the OECD average of around 2.6 per 100,000 people<sup>45</sup>. It is understood that such lower rate of crime is attributed to strict gun control laws, effective law enforcement, and strong social cohesion.

Furthermore, the private security services in South Korea is a USD 5.7 billion market as of 2023 with growth ranging from 3.8% to 9% during last three (3) years <sup>46</sup>. The private security market is being expanded in the space of untact/technology-based service (e.g. facial or iris recognition technology and synchronisation with mobile applications to improve user experiences etc.), and the market is dominated by the large integrated security service providers who are the subsidiaries of the telecommunication companies, S-1, SK Shieldus and KT Telecop. According to the statistics provided by the National Police Agency in 2021, there are a total of 14 private security service companies registered in Jeollanam-do<sup>47</sup>, in which there are 118 asset security service providers, 11 Special Security service providers, and four (4) machine security service providers.

Considering above facts, the likelihood of the community be adversely impacted by the security activities of the Project is **Low**.

The magnitude of the community be adversely impacted by the security activities of the Project is **Minor** as the security personnels in South Korea is not legally allowed for possession of firearms that fundamentally reduces the severity of impact should such events requiring use of weapons to occur.

The significance of the communities be adversely impacted by the security is considered **Negligible** considering likelihood and the magnitude of the impact.

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<sup>&</sup>lt;sup>45</sup> Intentional homicides (per 100,000 people) - OECD members | Data

<sup>46 2023</sup> 년 대한민국 보안시장 규모, 7조 437 억원 전망

<sup>47</sup> 정보공개자료실: HOME > 정보공개 > 사전정보공표 > 정보공개자료실

TABLE 7-10 IMPACT ASSESSMENT FOR COMMUNITY SECURITY

Impact	Impact on the community security							
Extent	Household		Myeon	Со	ounty		Korea	
	Impact extent b	e expected	l within the o	nshore dir	ect AoI.	1		
Duration	Temporary	Sh	nort-term	Long	g-term		Permanent	
	The duration of Project of 30 years		considered lor	long-term, throughout the lifecycle of the				
Scale	Negligible		Small	Ме	edium		Large	
	The scale of the nature of the Pr		mpact is cons	sidered sn	nall conside	ering t	the size and	
Frequency	The frequency of unheard of.	of the impa	ct will minor a	as security	y incident i	n Sou	th Korea is	
Magnitude	Negligible	Minor	<b>r</b> Moderate Ma		Major		Positive	
	The magnitude of the community be adversely impacted by the security activities of the Project is <b>Minor</b> as the security personnels in South Korea is not legally allowed for possession of firearms that fundamentally reduces the severity of impact.							
Likelihood	Low		Мес	dium		ı	High	
	Considering above facts, the likelihood of the community be adversely impacted by the security activities of the Project is <b>Low</b> considering the security industry context of South Korea.							
Significance	Negligible	Minor	Mod	erate	Major		Positive	

No additional mitigation measures are required as the impact significance for the community security was **Negligible**, however, the Project is in process of developing the HSSE Management Plan as a good industrial practice. The significance of the residential impact remains **Negligible**.

## 7.2 WORKERS

This Section assesses the potential adverse impacts to the workers with focus on the construction workers. Table 7-11 shows the current forecast of the manpower during the peak with expected duration.

TABLE 7-11 ESTIMATED MANPOWER

Activities	Expected Peak Manpower	Expected Peak Weeks	Expected Start of the Week in Peak
Pin-pile	200	10	2Q 2027
Jacket	200	10	2Q 2027
Inter Array Cable	Transport and Installation Vessel Crew: 80 to 100	40	1Q 2027

Activities	Expected Peak Manpower	Expected Peak Weeks	Expected Start of the Week in Peak
	Office Support/ Management Teams 20 to 60		
WTG	200	30	Q1 2028~Q3 2028
Export Cable	Transport and Installation Vessel Crew: 150 to 200 Office Support/ Management Teams 20 to 60	30	1Q 2027
Offshore Substation	200	16	4Q 2027
Onshore Substation & Export Cable	70 ~ 100	16	2Q ~3Q 2027
Transition Joint Bay (Offshore Works)	Site Team: 10 to 20 Office Support/ Management Team: 5 to 10	8	1Q 2027

Note: Above estimations are subject to change

## 7.2.1 SOURCE OF IMPACT

Three key areas of potential adverse impacts to workers have been identified during the SIA:

- Occupational Health and Safety;
- Worker's Right; and
- Accommodation.

#### 7.2.1.1 OCCUPATIONAL HEALTH AND SAFETY

The nature of the Project, i.e. the involvement of the offshore activities in default presents certain potential occupational health and safety risks, especially during the construction phase. The construction activities that may have adverse occupational health and safety impacts include, but not limited to the follow:

- **Working at heights:** Construction workers typically encounter working at height that presents fall hazard, and will be relevant to both offshore and onshore.
- **Confined spaces:** During the assembly and installation of WTGs, workers may be required to enter and work in confined spaces.
- Maritime Accidents: Maritime activities may add escalated risks such as drowning, hypothermia and other accidents. The remote working condition often presents high likelihood of severe accidents with harsh weather conditions addition to the challenge.
- **Noise and Vibration:** Prolonged exposure to high noise/vibration levels from the equipment can lead to hearing loss, stress and other health issues.
- Manual Handling: Lifting and moving materials can cause musculoskeletal disorders.

Similar exposure of occupational health and safety risks is expected during the operation phase as well, however, not as severe as during the construction phase.

#### 7.2.1.2 WORKER'S RIGHT

Considering that the number of workers involved during the construction is not significantly large in number, and that South Korea's the Labour Standard Act functions as the embedded

control, given the scale and size of the Project, the Project would mostly likely not have any significant adverse impacts on worker's right.

Below are some illustrative examples that a development project can have impact on workers:

## **Labour Condition/Contract**

- Excessive working hours or insufficient breaks;
- Inappropriate or delayed payments to workers; and,
- Risk of association with suppliers (e.g. service contracts) or third parties (e.g. recruitment agents) failing to adhere to relevant laws and international standards and guidance.

## Fair Treatment, Non-Discrimination, and Equal Opportunities

- Unequal employment opportunities, or underrepresented groups, leading to perceived favouritism;
- Discrimination in advancement, biased decisions in promotions or training opportunities;
- Inconsistent compensation and benefits, differences in pay, benefits, or working conditions for similar roles, creating inequities among employees; or
- Unaddressed Harassment or bias, resulting in an unsafe or unwelcoming work environment.

## **Child Labour/Forced Labour**

• Risks of forced and child labour or forced labour, leading to severe reputational and legal issues, particularly in lower tier suppliers from regions with weak governance.

## **Foreign Workers**

- Potentially subject to discrimination, poor living conditions, lack of access to health and social services, and/or restriction on freedom of movement.
- May face challenges in accessing project-related information due to language barriers.
   AWC will consider providing materials support in a language that the workers can understand during the construction phase if foreign workers are directly engaged.
- In addition, foreign workers engaged in local fishing crews, though not directly employed by the Project, may be indirectly affected due to restricted or reduced fishing activity. These workers will also be considered in the Project's stakeholder engagement and livelihood restoration processes. AWC will seek to ensure they have access to relevant project information, grievance mechanisms, and, where appropriate, support for job counselling or assistance with job replacement.

#### **Gender and Diversity Impact**

• Gender-based discrimination given the male dominance of the industry, harassment and/or abuse, and exclusion of vulnerable groups amongst the workers; and

## **Occupational Health and Safety Hazards**

 Exposure to risks of accidents, injuries, and long-term health conditions (e.g., exposure to hazardous substances, or physical strain), and/or long hours, isolated work environments, and the high-pressure nature of construction which may lead to mental health issues such as stress, anxiety, or depression among workers.

#### 7.2.1.3 ACCOMMODATION

Inappropriate management of worker's accommodation may result in adverse impact to workers. While the EPC Contractors are yet to be fully join the Project, it is currently expected the Project will not be providing construction camps or temporary accommodations to the construction workers and utilise existing lodging facilities within the onshore indirect AoI. And these worker's accommodation will be maintained and inspected in accordance with Workers' accommodation: processes and standards as referenced in the relevant IFC/EBRD.

The total number of workforces involved in the Project is unlikely to exceed 1,000 workers, and there is an adequate number of lodging facilities within Yeonggwang-gun, and the nearby city, Gwangju-si (Gwangju-si city centre is approximately 40 ~ 50 minutes by car). There are 48 licensed lodging facilities within Yeonggwang-gun (i.e. the onshore indirect AoI) as per the Yearbook<sup>48</sup>, and 732 licensed lodging facilities within Gwangju-si<sup>49</sup>. Therefore, it is expected that the Project or the EPC Contractors will not struggle to make arrangement for lodging.

For offshore construction, it is currently planned that the Project will not operate offshore accommodation vessels, and where the workers required to stay in the vessel e.g. during piling, they will be utilising the accommodation facilities within the vessel, and such accommodation facilities in the vessel will be in accordance with the Maritime Labour Convention, which is a convention established by the International Labour Organization<sup>50</sup> in 2006.

#### 7.2.2 EMBEDDED CONTROL

This Section provides currently existing control/mitigation measures with respect to workers' right:

### **Occupational Health and Safety**

The Project has already established a rigorous plan in managing the potential occupational health and safety risks, and the policies include the following:

- AWC Occupational Health, Safety and Security Policy: This policy ensures the health, safety and security of Personnel and visitors requires every workers to be involved in the identification, assessment and control of workplace hazards to ensure risks are reduced or eliminated where reasonably practicable.
  - AWC will implement Occupational Health, Safety Risk Management Program in each relevant workplace including from an each project level.
  - AWC will apply the Voluntary Principles on Security and Human Rights, which is designed to guide companies in maintaining the safety and security of their operations within an operating framework that encourages respect for human rights.
  - As of risk management, AWC will implement and subsequently review OHS risk and its management periodically, and the external reviews/audits will be conducted from time to time.

<sup>48</sup> 통계조회 및 다운로드

<sup>&</sup>lt;sup>50</sup> International Labour Organization. (2006). Maritime Labour Convention, 2006. Geneva: International Labour Office.

- Trainings: All the EPC Constructors and the Subcontractors workers will be provided with safety induction training. The site induction training will be carried out to all staff relevant to their scope of work and place of activities before they commence work on site. The EPC Contractors will keep in track of the workers training records.
- Toolbox Meeting: The Safety Manager from respective EPC Contractors will provide toolbox meeting for prior to commencement of the construction activities. AWC may call additional toolbox training as the need arises to further discuss safety aspects.
- Audits/Inspection: The EPC Contractors will undertake daily and weekly safety inspection, and subsequently report the result to AWC. Furthermore, AWC has established a Project specific ESMS in which the internal audit on ESMS implementation will be undertaken on an annual basis and report to the management (refer to AWC ESMS for full detail).
- Grievance Mechanism: The Project operates Grievance Mechanism and is posted on the Project specific website<sup>51</sup>. The workers can freely raise their occupational health and safety related concerns/grievances.

## Worker's Right

The local labour related regulations are in conformance of the relevant international standards as South Korea has ratified the International Labour Organisation (ILO) Conventions (Refer to Table 7-12). The local labour related regulations will be functioning as the embedded controls to eliminate/minimise Project's impact on the worker's right.

TABLE 7-12 CONVENTIONS AND ASSOCIATED LAWS/RULES (ILO CONVENTIONS)

Convention	Brief Summary	Time of Signature/ Ratificatio n	Associated Implementation Laws and Rules
C029 - Forced Labour Convention, 1930	<ul> <li>This convention undertakes to suppress the use of forced or compulsory labour in all its forms within the shortest possible period.</li> <li>For the purposes of this Convention the term forced or compulsory labour shall mean all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily</li> </ul>	20 Apr 2021	Labour Standards     Act of South     Korea, the Article     7 states the     prohibition of     forced Labour
C138 Minimum Age Convention 1973	<ul> <li>Each Member for which this Convention is in force undertakes to pursue a national policy designed to ensure the effective abolition of child labour and to raise progressively the minimum age for admission to employment or work to a level consistent with the fullest physical and mental development of young persons.</li> <li>The aim of the policy shall be to prevent accidents and injury to health arising out of, linked with, or occurring in the course of work, by minimising, so</li> </ul>	20 Feb 2008	Labour Standards     Act of South Korea     Article 76 states     the health and     safety of workers.

<sup>51</sup> Contact - Anma Wind

Convention	Brief Summary	Time of Signature/ Ratificatio n	Associated Implementation Laws and Rules	
	far as is reasonably practicable, the causes of hazards inherent in the working environment.			
C182 Worst forms of child labour convention, 1999	Each Member which ratifies this Convention shall take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour as a matter of urgency.	29 Mar 2001	Labour Standards     Act of South Korea     Article 64 states     Minimum Age and     Employment     Permit Certificate	

In addition, the Project has already established the human resource polices to minimise impact on the worker's rights. AWC has established a Client Code of Conduct, which is a code that AWC Group is requesting their contractors, subcontractors, developers, partners, project managers, supplier consultants, agents, intermediaries, finders, brokers, advisers and any other third parties to comply with.

Furthermore, AWC has established the Project specific SCMP that states EPC Contractors will:

- Provide the Project's grievance mechanism to the workers;
- Clearly stipulate provisions concerning working hours under their contract;
- Clearly stipulate provisions concerning payment of overtime in line with South Korean labour law;
- Respect breaks and leave, including statutory holiday, casual leave, marriage leave, maternity leave, sick leave, work injuries leave, personal leave, bereavement leave and annual leave;
- Provide social security for employees in a level that does not breach international recommendations; and
- Ensure timely payment of wages and benefits and provide payslips to all workers.

#### **Child and Forced Labor**

To avoid any risk to children in connection with the Project, AWC and the Contractor will:

- Ensure that the Project does not hire children and youth age under 15 as per the Labour Standards Act and AWC Social Policy. All parties, including the suppliers will be required to comply with all relevant regulations, contractually;
- If in unlikely event that it is necessary to hire minors age under 18, AWC will comply with the Labour Standards Act, and AWC Social Policy, and ensure that they do not participate in high risk or hazardous works including night shift and overtime; and
- If any forms of child labour are identified, ensure the child ceases work immediately, and report to relevant authorities.

The Client's CoC upholds a commitment to treating all individuals with dignity and respect. This commitment extends to all third-party partners and contractors ("Third Parties"), who are expected to adhere to the same high standards. It is required to ensure that neither child labour nor forced labour is present within any aspect of their business operations. It should be

emphasized that compliance with these ethical labour standards is essential for maintaining the integrity and sustainability of its operations and supply chain.

To avoid any risks of forced labour, AWC and the suppliers will:

- Ensure that employees are working voluntarily and do not engage in or support the use of forced labour as per the relevant local regulation and AWC Social Policy. All parties, including the suppliers will be required to comply with all relevant regulations, contractually;
- Ensure all employees are informed of the terms of employment clearly; and
- Outline and implement immediate corrective actions should forced labour be discovered.

#### **Accommodation**

The Project has already established a human resource polices to minimise impact on the worker's rights. AWC has established a Client Code of Conduct, which is a code that AWC is requesting their contractors, subcontractors, developers, partners, and any other third parties to comply with. The licensed lodging facilities are inspected and managed as per the Special Act on the Safety Control and Maintenance of Establishments, and the Building Act which are considered broadly in line with the relevant international guidance/standards. The international guideline includes the IFC/EBRD Workers' Accommodation Processes and Standards.

Furthermore, the EPC Contractors will review and check the status of the accommodation facilities using the Appendix F Checklist under the SCMP.

SCMP also provides provisions on offshore accommodation as well. AWC will guide EPC Contractors to use appropriate accommodation facilities at offshore and by guiding the EPC Contractors to undertaken inspection by referring to the offshore accommodation facility checklist that are provided under the Appendix F of the SCMP.

#### 7.2.3 SIGNIFICANCE OF IMPACT

This Section provides impact assessment for each of the impact source.

#### 7.2.3.1 OCCUPATIONAL HEALTH AND SAFETY

While the offshore wind industry is relatively new to South Korea and Asia Pacific Region, the Total Recordable Injury Rate recorded by the Global Offshore Wind Health and Safety Organisation in 2023 was 2.73 recordable injuries per million hours<sup>52</sup>, which is similar to the Total Recordable Injury Rate of industry average of the United States for year 2021 of 2.7 recordable injuries per million hours according to the US Bureau of Labor Statistics<sup>53</sup>.

Considering that the offshore wind farm Total Recordable Injury Rate is typical industrial average, the likelihood of the workers expose to occupational health and safety impact is expected to be **Medium**.

The magnitude of the adverse occupational health and safety impact is expected to be Major given the nature and scale of the proposed development and that the Project involves considerable amount of offshore construction activities. However, the Project has established

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<sup>&</sup>lt;sup>52</sup> <u>Health and safety statistics | G+ Offshore Wind Health and Safety Organisation</u> (qplusoffshorewind.com)

<sup>53 &</sup>lt;u>IIF Home</u>: U.S. Bureau of Labor Statistics (bls.gov)

the layers of mitigations/controls already through the embedded controls, and therefore, the magnitude of impact has been revised to **Moderate**.

The significance of the impact on the occupational health and safety of the workers by the Project activities is considered **Moderate** considering the likelihood and the magnitude of the impact.

TABLE 7-13 IMPACT ASSESSMENT FOR WORKER'S OCCUPATIONAL HEALTH AND SAFETY

Impact	Impact on the worker's health and safety							
Extent	Household	M	yeon	Cou	nty	Korea		
	Impact extent b onshore indirect					direct AoI and		
Duration	Temporary	Sho	rt-term	Long-	term	Permanent		
	worker's health	The duration of impact will be long-term as the key risks with respect to worker's health and safety will be experienced during the construction phase, however, the Project will still involve workers during the operation phase as well.						
Scale	Negligible	S	mall	Med	ium	Large		
	The scale of the and size of the p				dium consid	lering the nature		
Frequency	The frequency o					lable Injury Rate		
Magnitude	Negligible	Minor	Moderate		Major	Positive		
	The magnitude of the adverse occupational health and safety impact is expected to be Major given the nature and scale of the proposed development and that the Project involves considerable amount of offshore construction activities.  However, the Project has established the layers of mitigations/controls already through the embedded controls, and therefore, the magnitude of impact has been revised to <b>Moderate</b> .							
Likelihood	Low		Мес	lium	High			
Considering that the offshore wind farm Total Recordable Injury Rate is tylindustrial average, the likelihood of the workers expose to occupational he and safety impact is expected to be <b>Medium</b> .								
Significance	Negligible	Minor	Mod	erate	Major	Positive		

As the significance of the impact on the occupational health and safety of the workers by the Project activities is considered **Moderate**, AWC has established additional mitigation measures to further reduced the impact significance. Such additional mitigation measures include development of the following subplans under the Project specific Environmental and Social Management Plan (ESMP), which AWC is currently working on:

- Marine Coordination Plan;
- Health, Safety, Security & Environmental Management Plan; and

• Project Wide Emergency Response Plan (for both AWC and EPC Contractors).

In addition, the Project plans to verify whether the EPC Contractors are complying properly through the annual audits and inspection reports submitted by the EPC Contractors.

The significance of residual impact is adjusted to **Minor** with the series of additional mitigation measures.

#### 7.2.3.2 WORKER'S RIGHT

While Korea has strict labour regulations and many skilled workers in the offshore industry are generally well protected, the Project also anticipates the employment of foreign migrant workers for unskilled or seasonal roles, including vessel support and logistics.

Based on prior studies and stakeholder consultations, foreign workers, even with legal work permits, can be disproportionately vulnerable to unfair working conditions, limited understanding of their rights, and language barriers. Therefore, the likelihood of adversely impacting worker rights is assessed as **Medium**, especially for those workers with limited familiarity with Korean labour practices and procedures.

The magnitude is considered **Moderate**, given that violations of labour rights, even on a limited scale, can result in serious legal, reputational, and social consequences, particularly in the context of a large infrastructure project involving international labour.

The significance of the adversely impacting the worker's right is **Moderate** considering likelihood and the magnitude of the impact.

TABLE 7-14 IMPACT ASSESSMENT ON THE WORKER'S RIGHT

Impact	Impact on	Impact on the worker's right						
Extent	Но	usehold	Myeon	County	Korea			
			be within offshore		ect AoI and			
Duration	Ter	mporary	Short-term	Long-term	Permanent			
			e short-term as the erienced during the					
Scale	Ne	Negligible		Medium	Large			
		The scale of the potential impact is considered medium considering the nature and size of the proposed construction activities.						
Frequency	risks associ	ated with commu	onsidered <b>Medium</b> nication barriers, li place protections,	imited awareness of	of rights, and			
Magnitude	Negligible	Minor	Moderate	Major	Positive			
	even on a li consequenc	The magnitude is considered <b>Moderate</b> , given that violations of labour rights— even on a limited scale—can result in serious legal, reputational, and social consequences, particularly in the context of a large infrastructure project involving international labour.						
Likelihood		Low	Medium	Hi	gh			

Impact	Impact on the worker's right					
	The likelihood is assessed as <b>Medium</b> , recognizing that although Korea has strong labour laws, foreign workers engaged in unskilled roles may be less familiar with their rights and face challenges in accessing redress mechanisms.					
Significance	Negligible	Minor	Moderate	Major	Positive	

While the significance of the impact on workers' rights is assessed as **Moderate**, the Project has already established a set of core management measures, including an Occupational Health, Safety, and Security Policy, and a grievance mechanism that is accessible to all workers.

In response to the increased vulnerability of foreign migrant workers, particularly those engaged in unskilled roles, if foreign migrant workers are hired, the Project will consider additional measures to ensure that all workers receive explanations of their contracts and the Code of Conduct (CoC) in a language they can understand. Workers will also sign an acknowledgment confirming their understanding of grievance procedures and H&S requirements.

These measures are designed to promote fair treatment, prevent exploitation, and strengthen worker protections, particularly in contexts where language and legal literacy may pose barriers.

With these additional controls in place, the residual impact on workers' rights is reduced to **Minor.** 

#### 7.2.3.3 ACCOMMODATION

The likelihood of adversely impacting the worker's right with respect to accommodation is **Medium** as the Project will not be operating centralized construction camps and instead plans to accommodate workers in private lodging facilities within local communities. This arrangement introduces potential risks related to inconsistent standards, reduced oversight, and possible exposure to poor living conditions or limited access to sanitation. While the EPC Contractors are expected to utilise existing lodging facilities within the onshore indirect AoI or nearby city, Gwangju-si, these facilities, although subject to regulation under the Special Act on the Safety Control and Maintenance of Establishments and the Building Act, may still vary in quality, accessibility, and suitability for long-term or group occupancy.

The Project recognizes that worker accommodation in the local community increases the interface between workers and residents, thereby also influencing community health, safety, and GBVH-related risks. As such, accommodation-related risks are addressed in conjunction with the broader labour influx and community impact assessment, in alignment with IFC Performance Standard 4.

The magnitude of the adversely impacting the worker's right is considered Moderate particularly if workers are housed in poorly managed or overcrowded facilities lacking basic services such as clean water, ventilation, or hygiene infrastructure. However, the Project has already established a series of embedded controls related to worker accommodation, including requirements for accommodation standards aligned with international guidance (e.g., IFC/EBRD Workers' Accommodation Processes and Standards), periodic inspection by

contractors, and grievance channels for lodging-related concerns. With these controls in place, the magnitude of the impact is considered **Minor**.

Based on this assessment, the significance of adversely impacting the worker's right with respect to accommodation is considered **Minor**.

TABLE 7-15 IMPACT ASSESSMENT ON THE WORKER'S RIGHT WITH REGARDS TO ACCOMMODATION

Impact	Impact on the Wo	Impact on the Worker's Right with regards to accommodation					
Extent	Household	Муео	on <b>County</b>		Korea		
	Impact extent be e onshore indirect Ac				e direct AoI and		
Duration	Temporary	Short-t	erm L	ong-term	Permanent		
	The duration of imp						
Scale	Negligible	Smal	II. I	Medium	Large		
		The scale of the potential impact is considered medium considering the nature and size of the proposed construction activities.					
Frequency	The frequency of the regulations/laws.	The frequency of the impact will minor as the considering the strict local labour regulations/laws.					
Magnitude	Negligible	Minor	Moderate	Major	Positive		
	The Project has already established the series of embedded controls on worker's right with regards to the accommodation, and with the embedded control, the magnitude of adversely impacting the worker's right with respect to accommodation is <b>Minor</b> .						
Likelihood	Low	Mo	edium		High		
	The Project does not plan to operate centralized construction camps; instead, workers will be accommodated in existing private facilities within the onshore indirect AoI or nearby cities such as Gwangju-si. While these facilities are legally regulated, variations in quality and access to basic services may exist. The nature of accommodation increases the need for oversight and consistent standards. Based on this, the impact on workers' rights with respect to accommodation is assessed as Minor.						
Significance	Negligible	Minor	Moderate	Major			

The Project recognizes that accommodating workers in private facilities, rather than centralized camps, may pose challenges in terms of consistency in living conditions, sanitation access, and oversight. In response, the Project has developed an Accommodation Management Plan Framework aligned with relevant international standards. Additionally, a worker grievance mechanism has been established to allow individuals to raise concerns related to accommodation freely and safely, in accordance with good international industry practice.

Considering the nature of the risk and the measures in place, the impact on workers' rights with respect to accommodation is assessed as **Minor**, and the residual impact remains **Minor**.

While the risk is not eliminated, it is expected to be managed effectively through these embedded controls.

## 7.3 FISHERIES

This Section assesses the potential impacts on fisheries. Large-scale offshore projects, such as offshore wind farms, can have adverse impact on fishers. The impacts on fisheries caused by the Project can be broadly categorised into two types:

- Changes in amount of fish catch due to the Project's impact on the marine ecosystem (i.e. impact on the ecosystem services); and
- The reduction of fishing areas due to the physical presence of the WTGs leading to additional travel distance for fishing.

Once the OPPW Action Plan for the Project is finalised, a no-navigation zone extending up to 500 m from the WTGs will be applied. This may result in restrictions on fishing areas.

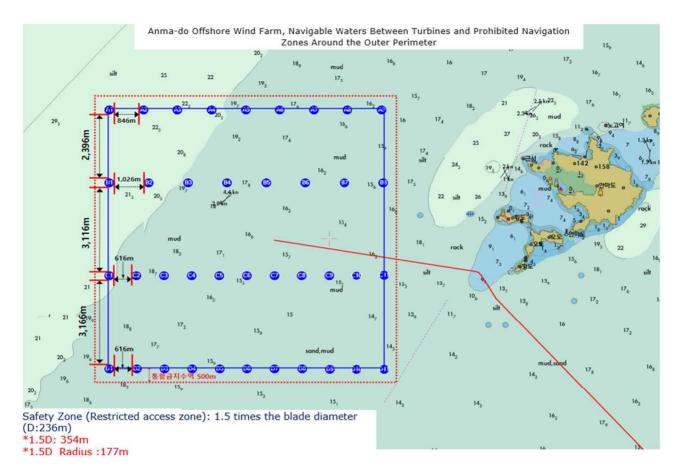
The Project has identified the impact factors on the marine ecosystem system through the EIA. The Project will subsequently undertake the Fisheries Damage Investigation (FDI) process in accordance with the Fisheries Act and the Act on Acquisition and Compensation of Land, etc. for Public Projects. The FDI process may result in changes to the identified fishing rights affected or the extent of the impact. Therefore, exact fishers subject to impact and therefore, compensation will be determined upon completion of the FDI. Refer to the Project specific Livelihood Restoration Plan for full detail.

As mentioned in section 5.3, the illegal fishing is hard to exist as one will struggle to sell the illegally caught fishes as the market or the distribution network is also strongly controlled/managed by the National Federation of Fisheries Cooperative. Additionally, the licenses and permits are monitored/regulated by port authorities and coastal guard. It is also communicated with the interview with the community representative of Songam-ri that illegal fishing is highly unlikely to occur.

#### 7.3.1 SOURCE OF IMPACT

Among the offshore areas of the Project, a no-navigation zone will be designated up to 500 metres from the outermost WTG. To ensure maritime traffic safety, the Project was guided by the authority to establish a monitoring centre to oversee the no-navigation zone, and unauthorised navigation through this area is prohibited. The no-navigation zone designated by the Project has been marked in red in Figure 7-1. According to the FDIA report, there are no impacted Licensed Fishery (e.g. aquacultural farm or seaweed farm etc.) within or overlapping the designated no-navigation zone. However, fishery impacts are anticipated for holders of the Permitted Fishery by reducing available public water for them to fish and by impacting the ecosystem services.

CLIENT: Anma Offshore Wind Energy Co., Ltd.



Source: Anma Offshore Windfarm Maritime Traffic Safety Assessment report submitted on April 2024

FIGURE 7-1 THE NO-NAVIGATION ZONE DESIGNATED DUE TO THE PROJECT

### 7.3.2 EMBEDDED CONTROLS

Embedded controls for potential adverse impact to fishing vessels were established during the Maritime Traffic Safety Assessment, and AWC is in preparation to undertake the FDI.

The below summarizes relevant embedded controls:

Maritime Traffic Safety Assessment: The Project has established the 'Anma-do OWF Vessel Navigation Guidelines' through the Maritime Traffic Safety Assessment to mitigate the reduction of fishing areas due to the Project's occupation of public waters, which includes a provision allowing vessels under 30 tonnes to navigate within the no-navigation zone with AWC's permission.

It should be noted that this measure does not constitute permission for fishing but rather permission for passage to facilitate fishing activities and depending on the project's circumstances—such as maintenance activities or reasons related to navigation safety—passage may occasionally be restricted. However, this is solely intended to support the fishing activities of local fishers operating in the surrounding area and as the Project's WTG area is nearshore, it is expected that most fishing activities will be conducted by holders of coastal fishing permits restricted to vessels under 10 tonnes under the Fisheries Act.

Therefore, if vessels under 30 tonnes are permitted to navigate, the impact of fishing area reduction due to the Project's occupation of public waters is anticipated to be reduced.

• **FDI**: The fishery impacts caused by the Project will be mitigated or offset through financial compensation in accordance with the relevant South Korean regulations. AWC is in preparation process of undertaking the FDI to identify the exact impact the Project will have, and who will be impacted. The appraisal process for calculating the compensation will follow once FDI process is completed, which will involve both AWC and the affected fishers both hiring licensed appraisers to settle/agree on the compensation amount.

## 7.3.3 SIGNIFICANCE OF IMPACT

The likelihood of the adverse impacts to the fishers is **Medium.** While the number of permitted fishery right holders identified during the Fishery Damage Impact Assessment (FDIA) is 575, this does not represent the total number of fishers potentially affected.

At the Fishery Damage Investigation (FDI) progresses, the estimated number of potentially affected individuals, including those holding permitted, licensed, and reported fishery rights, is currently projected to be approximately 1,500.

The magnitude of the adverse impacts to the fishers is major as the impact is expected to be severe to the fishers who fish in the WTG Area. However, the Project will undertake FDI and compensate for the impact. It is expected that the fishers subject to compensation will be identified, and they will be able to continue to fish at the surrounding areas of the WTG Area. Furthermore, as described in the SEP, AWC has prioritized communication with the fisheries to ensure the smooth implementation of FDI and subsequent compensation, from the Public-Private Council and continuing through efforts after its disbandment. Additionally, the MTSA assessed the suitability of the site location and developed a mitigation plan to support the fishing activities of local fishers in the surrounding areas. With these existing embedded controls, the magnitude of the adverse impacts to the fishers is adjusted to **Moderate**.

The significance of the communities be adversely impacted by the offshore traffic is considered **Moderate** considering likelihood and the magnitude of the impact.

TABLE 7-16 IMPACT ASSESSMENT FOR FISHERY

Impact	Impact on Fishery						
Extent	Household	Myeon	County	Korea			
	The extent of impact is assessed at the County level, as the WTG Area overlaps with fishing grounds utilized by multiple coastal communities in Yeonggwanggun. While the physical footprint is offshore, the socioeconomic influence extends to a wider group of fishers and their households.						
Duration	Temporary	Short-term	Long-term	Permanent			
	The impact is considered long-term, as operational restrictions in the WTG Area are expected to persist throughout the life of the Project.						
Scale	Negligible	Small	Medium	Large			
	The scale of impact is assessed as <b>Medium</b> , based on updated estimates from the ongoing Fisheries Damage Investigation (FDI).  Approximately 1,500 individuals—across permitted, licensed, and reported fisheries—are currently considered potentially affected						

Impact	Impact on Fishery					
Frequency	WTG Area and	The frequency is assessed as Moderate, given the spatial overlap between the WTG Area and common fishing zones used throughout the year, particularly for gillnets, traps, and shellfish collection.				
Magnitude	Negligible Minor <b>Moderate</b> Major					
	displacement of cases, reduction While compensa	f fishing activitie n or cessation of ation will be pro	oderate, as rest s, increased fuel fishing. vided, some impa r vulnerable fishe	and time costs, acts may extend	and in some beyond the	
Likelihood	Low		Medium		High	
	The likelihood of impact is assessed as <b>Medium</b> . Although not all 1,500 individuals actively fish within the WTG Area at all times, the combination of spatial overlap, seasonal use, and dependence on nearshore fisheries supports a moderate probability of disruption.					
Significance	Negligible	Minor	Moderate	Major	Positive	

The Project has established additional mitigation measures to further reduce the impact significance of **Moderate**. AWC has established the Project specific LRP to make sure that the result of the FDI and appraisal be implemented in timely and appropriate manner. Furthermore, the implementation of LRP will be monitored through the annual ESMS internal audit.

The significance of the residual impact is adjusted to **Minor**, with the embedded controls.

## 7.4 SUPPLY CHAIN

This Section assesses the potential impacts from the Project on the workers in the supply chain, which may range from adverse impact to the workers' rights, environmental/health and impacts on workers etc. Increasingly, there is an expectation by the stakeholders that a company not only has human rights oversight of its workers, but also its contractors and those involved in its supply chain.

According to the Guidance Note on Implementation of Human Rights Assessments under the Equator Principles issued in September 2020 by the Equator Principles Association, some of the examples of potential negative impact on human rights impact of a business' supply chain may involve:

- Presence of child labour in its supply chain;
- Unknowingly benefiting through supply chains from the labour of workers who have been trafficked and are forced to work; or
- High risk of significant safety issues related to supply chain workers.

In this regard, IFC PS2 requires the developers to:

"Where there is a high risk of child labour or forced labour in the primary supply chain, the developer will identify those risks. If child labour or forced labour cases are identified, the developer will take appropriate steps to remedy them. Additionally, where there is a high risk of significant safety issues related to supply chain workers, the developer will introduce

procedures and mitigation measures to ensure that primary suppliers within the supply chain are taking steps to prevent or to correct life-threatening situations".

It should be noted that the key suppliers for the Project have not joined the Project. Therefore, the assessment has been performed considering the known risks and issues observed in typical offshore wind supply chain. It is expected that the suppliers to implement the mitigation/control measures established in this Section, and AWC will guide/monitor the suppliers to implement the measures.

#### 7.4.1 SOURCE OF IMPACT

The followings are potential source of the adverse impacts to the workers in the supply chain, which may occur in a typical offshore wind industry. Examples include:

- **Exploitation of the Contractors**: Exploitation through low wage, paid leave, absence of key benefits such as insurances etc.;
- Child/Forced Labour: Risks of child labour or forced labour, leading to severe reputational and legal issues, particularly in lower-tier suppliers from regions with weak governance;
- **Foreign Workers**: Potentially subject to discrimination, poor living conditions, lack of access to health and social services, and/or restriction on freedom of movement;
- Gender and Diversity Impact: Gender-based discrimination given the male dominance
  of the industry, harassment and/or abuse, and exclusion of vulnerable groups amongst the
  workers; and
- Occupational Health and Safety Hazards: Exposure to risks of accidents, injuries, and long-term health conditions (e.g., exposure to hazardous substances, or physical strain), and/or long hours, isolated work environments, and the high-pressure nature of construction which may lead to mental health issues such as stress, anxiety, or depression among workers.
- The **extraction of minerals and rare earth elements**, particularly in countries with weak governance structures, where forced labour and child labour risks are heightened.
- Turbine and component manufacturing, which often involves multiple subcontracting tiers, with lower-tier suppliers operating beyond the visibility of standard labour oversight mechanisms.
- Shipping and logistics operations, where workers may face long hours, low pay, fatigue-related risks, and inconsistent application of OHS standards.

## 7.4.2 EMBEDDED CONTROLS

AWC has developed a Project-specific Code of Conduct and Anti-Bribery and Anti-Corruption Policy, and the Employer's requirements provides a mechanism to ensure these policies are communicated to suppliers when entering supply chain contracts.

Below are some examples of existing control/mitigation measures that AWC has already established:

- Employer's code of Conduct and Anti-Bribery/Anti-Corruption Policy:
  - Compliance with the regulations of the host country;
  - Trade and Economic Sanctions;

- Health and Safety;
- Environment;
- · Human Rights; and
- Discrimination and Labour Standards.

Furthermore, through these policies adopted by their suppliers, AWC reserves the right to request anti-bribery and corruption due diligence information and/or documentation upon engagement or at any time during their collaboration with AWC.

- Supply Chain/Procurement Policy
  - Guidelines for contract and procurement review have been developed under the Project specific ESMS of AWC. These are designed to guide all relevant project staff and contractors in the preparation, review, and execution of contracts in alignment with AWC's Code of Conduct and supply chain relevant policies.

#### 7.4.3 SIGNIFICANCE OF IMPACT

The likelihood of adverse impacts on workers in the supply chain is assessed as **Medium**, as the project's supply chain includes not only Europe where strict human rights and labour standards are enforced but also Vietnam and Taiwan.

The magnitude of the adverse impacts to the work in the supply chain is major as if adverse human right or labour issues were to occur to the workers in the supply chain, it will be severe. However, the Project has established and already committed for a series of embedded controls (refer to Section 7.1.2). With these existing embedded controls, the magnitude of the adverse impacts to the work in the supply chain is adjusted to **Moderate**.

The significance of the communities be adversely impacted by the supply chain is considered **Minor** considering likelihood and the magnitude of the impact.

TABLE 7-17 IMPACT ASSESSMENT FOR WORKERS IN THE SUPPLY CHAIN

Impact	Impacts on the workers in the supply chain							
Extent	Household	Myeon	C	County	Korea			
	Considerable port companies which							
Duration	Temporary	Short-ter	m <b>Lor</b>	ng-term	Permanent			
	The duration of the impact is considered short-term to long-term, given that the suppliers will be assigned during the construction phase, which will up to 4.5 years, and during the operational phase, which will span 30 years.							
Scale	Negligible	Small	M	edium	Large			
	The scale of the potential impact to the suppliers is considered Medium given that the nature of the scale and nature of the Project.							
Frequency	The frequency is expected to be relatively low given that the WTG manufacturer is Siemens Gamesa and that South Korea adapts relatively thorough regulations on worker's/human right, and health and safety.							
Magnitude	Negligible	Minor	Moderate	Major	Positive			

Impact	Impacts on the workers in the supply chain					
	The Project has established and already committed for a series of embedded controls. With these existing embedded controls, the magnitude of the adverse impacts to the work in the supply chain is adjusted to <b>Moderate</b> .					
Likelihood	Low	М	<b>Medium</b> High			
	The likelihood of adverse impacts on workers in the supply chain is assessed as <b>Medium</b> , as the project sources components from Europe, Taiwan, and Vietnam.					
Significance	Negligible	Minor	Moderate	Major	Positive	

Although the significance of the adverse impacts to the work in the supply chain is considered **Moderate**, the Project has established a Project tailored SCMP and implement through its lifecycle as a good management practice. The SCMP include many risk/impact control mechanisms including a supply chain self-assessment procedure. Refer to SCMP for full detail. Furthermore, the Project has established the ESMS that will monitor adequate implementation of the embedded controls mentioned in this Section.

Therefore, the significance of residual impact is adjusted to **Minor** with embedded controls and additional mitigation measures.

## 7.5 SOCIOECONOMIC

This Section focuses whether the communities/stakeholders at or near the Project area will be socioeconomically impacted due to the construction and operation activities of the Project. In general, the communities will be impacted both positively and negatively due to the Project, driving changes to the livelihood of the local community.

It should be noted that this Section will assess the socioeconomic impact at the wider onshore indirect AoI. This scope will include both direct and indirect livelihood impacts on the communities/stakeholders.

## 7.5.1 SOURCE OF IMPACT

Typical large scale offshore wind farm projects such as the Project result in considerable socioeconomic impacts to the surrounding communities of the development area, including creation of job, introduction of the supporting/associated facilities etc.

Because the offshore wind energy industry is new industry to Yeonggwang-gun and the surrounding region, it will most likely result in positive socioeconomic impacts by creating new jobs, and introduction of new workforces to the area. Although this is relatively new industry, skilled workforce from shipbuilding sector who are capable of transferring their expertise, will participate in the construction. If these skilled workers are unavailable, hires will be sourced from other countries. Workers with general skills in construction will be sourced locally. Yeonggwang-gun and the surrounding region are not known to have major shipyard or offshore operations, and therefore, the introduction of the Project is not expected to any adverse socioeconomic impacts on the existing operations (e.g. resource or manpower drainage etc.).

Table 7-18 provides current estimation of the potential job creation (i.e. positive socioeconomic impacts) during the construction and operation phase of the Project. AWC has conducted preliminary calculation to estimate the range of local employment opportunities created by the Project, with an error margin of approximately 25%. AWC is planning to fill up 40% of its hires from Yeonggwang-gun and is planning to increase the workers from the local area. This may change depending on the actual project circumstances and the local workforce availability in the future.

In support of this goal, AWC signed a Memorandum of Understanding (MoU) with the Industry-Academic Cooperation Foundation of Mokpo National Maritime University in April 2024. The agreement outlines the joint establishment and operation of an Offshore Wind Operations and Maintenance (O&M) Training Centre. The Centre will offer internationally accredited training programs, support the development of certified technicians, and provide job placement assistance for trainees, including potential deployment to AWC and related institutions.

As an early outcome of this collaboration, two students from Mokpo National Maritime University completed internships at AWC's office in January–February 2025, gaining hands-on experience in offshore wind project operations.

This partnership is expected to contribute not only to regional workforce development but also to long-term skills upgrading in the offshore wind sector. Implementation of this initiative will proceed in line with project timelines and workforce needs.

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IMPACT ASSESSMENT AND MITIGATION

ESIA FOR PROJECT ANMA

TABLE 7-18 EXPECTED INTRODUCTION OF JOBS DURING THE PROJECT LIFECYCLE

Classification	_	Activities	Total Number	Local Residents (rate)
		Project Management and administration	42	8 (20%)
		Engineering and design	78	8 (10%)
	Onshore	Manufacturing and assembly	209	31 (15%)
		Material and transport	78	39 (50%)
Construction stage		Construction &Infrastructure	261	157 (60%)
		Installation &Assembly	131	33 (25%)
	Crodel	Marine & Diving services	78	23 (30%)
	ם ואוסות	Environmental Monitoring	31	12 (40%)
		Electrical & Mechanical Installation	78	16 (20%)
		Total	986	327 (33%)
		Operation and maintenance	31	12 (40%)
	or do do	Administrative support role	16	8 (50%)
	ם ופוס	Supply and logistics	8	4 (50%)
Operation stage		Community engagement and participation	4	3 (70%)
		Maintenance Inspection	26	10 (40%)
	Offshore	Marine Operations	14	4(30%)
		Environmental Monitoring	8	3 (40%)
		Total	107	44 (40%)

Note: Above are estimations, and subject to potential change.

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# 7.5.2 EMBEDDED CONTROLS

It should be noted that Table 7-18 is a draft plan and requires discussion with the communities and actual implementation will also depends on the available competent local resources to realise the plan. AWC will continue to discuss the local job creation initiative with the communities and will be the main control for managing socioeconomic impacts.

AWC signed an MOU with Mokpo National Maritime University, that they will operate a joint development of internationally certified training programs required for offshore wind operation and maintenance. The Project will support the development of training facilities and equipment, and employment opportunities for program graduates.

# 7.5.3 SIGNIFICANCE OF IMPACT

The likelihood, and magnitude of the socioeconomic impacts will not be assessed as the socioeconomic impacts from the Project to the communities within the onshore indirect AoI are expected to be positive.

The significance of the socioeconomic impact due to the Project is considered **Positive**.

TABLE 7-19 SOCIOECONOMIC IMPACT ASSESSMENT

Impact	Socioeconomi	c impact t	o the comm	unities i	n the onsh	ore indirect AoI
Extent	Household		Myeon	С	ounty	Korea
	The extent of the given its impact					the level of county 1.
Duration	Temporary	Sł	nort-term	Lor	ıg-term	Permanent
	The duration of throughout the					
Scale	Negligible		Small	М	edium	Large
		employme	nt inducing e			ject will be large ucing effect, and
Frequency		est impact	will occur du			e Project will be stage, and steadily
Magnitude	Negligible	Minor	Mod	erate	Major	Positive
	N/A		- I			'
Likelihood	Low		Med	dium		High
	N/A				1	
Significance	Negligible	Minor	Mod	erate	Major	Positive

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# 7.6 VULNERABLE GROUPS

This Section assesses the potential impacts to vulnerable groups which include elderly, women and physically challenged individuals who may be disproportionately impacted by the Project. As mentioned in Section 5.3, there are no indigenous people in South Korea, and therefore was scoped out from the assessment.

# 7.6.1 SOURCE OF IMPACT

The source of the impacts to the vulnerable groups will be similar to the ones for the local community. Refer to Section 7.1.1. This Section will discuss how the similar Project impact may disproportionately impact respective vulnerable groups.

# 7.6.1.1 ELDERLY

Table 7-20 shows the age variation for the townships within onshore indirect AoI (i.e. Nakwolmyeon representing Anma Archipelago and Yeomsan-myeon).

TABLE 7-20 AGE VARIATION OF NAKWOL-MYEON/YEOMSAN-MYEON

Age group	Nakwol-myeon		Yeomsan-myeo	on
	Population	(%)	Population	(%)
0 to 4 years	11	2.08%	78	2.04%
5 to 14 years	23	1.07%	105	2.75%
15 to 39 years	70	12.19%	457	11.98%
40 to 59 years	206	23.44%	879	23.04%
60 to 64 years	68	12.29%	461	12.08%
65 years and above	235	48.93%	1,835	48.10%
Total	613	100%	3,815	100%

Source: Yeonggwang-gun Statistical Yearbook, 2023

It can be noted that the percentage of population over age of 65 (i.e. the current legal definition of "elderly" for South Korea) is 48.9% for Nakwol-myeon, and 48.1% for Yeomsanmyeon. This is considerably higher than the national average of 18.4 %. The source of impacts for the elderly members will be traffic impacts and community health impact, and as they are less mobile and less immune to communicable diseases.

### 7.6.1.2 WOMEN

Table 7-21 shows the proportion between male and female in wider Yeonggwang-gun as well as Nakwol-myeon and Yeomsan-myeon. Yeomsan-myeon, i.e. the areas around the landfall area and along the onshore export cable shows similar male to female ratio compared with wider Yeonggwang-gun. However, Nakwol-myeon shows that ratio of male is considerably higher compared with female, with the male percentage of 62.2%. It was noted during the interview with the Officer in charge of the Yearbook of the General Affairs Division of Yeonggwang County Office that this imbalance is mainly due to the fact that majority of the residents in the Nakwol-myeon are fishers, which are mostly attended by male population, resulting imbalance in the region.

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TABLE 7-21 MALE TO FEMALE RATIO FOR YEONGGWANG-GUN, NAKWOL-MYEON AND YEOMSAN-MYEON

Township/Village	Ма	Male Female		Male Female		nale	Total
Township/ Village	Population	Percent	Population	Percent	IOLAI		
Yeonggwang-gun	26,709	50.22%	26,473	49.78%	53,182		
Nakwol-myeon	382	62.21%	232	37.79%	614		
Yeomsan-myeon	1,918	49.37%	1,967	50.63%	3,885		

Source: Yeonggwang-gun Statistical Yearbook, 2023.

While there will be influx of construction workers (refer to Section 7.2.1.3), this is not expected to result in the increase the potential risks of gender based violences or sexual harassment as the Project will be implementing a series of embedded controls with respect to worker management (refer to Section 7.2.2).

# 7.6.1.3 PHYSICALLY CHALLENGED INDIVIDUALS

Physically challenged individuals reside at and/or near the landfall or onshore export cable may be disproportionately impacted by the Project activities such as traffic impact and/or community health.

The detailed information on the physically challenged individuals within the onshore direct AoI is provided under Table 6-37. The total number of individuals with disability for Yeomsan-myeon is 461 people that is approximately 11.9% of the total population, and 44 people for Nakwol-myeon that is approximately 7.2% of the total population. This is considerably higher than the nation's average of 5.1%. There is a correlation with the number of elderly individuals, i.e. higher number of elderly people leading to higher number of physically challenged individuals.

# 7.6.2 EMBEDDED CONTROLS

As written in Section 7.6.1, the impact to vulnerable group by the Project activities will be limited to the elderly and physically challenged individuals in considerate the construction area to be far from residential area and the statistics of the numbers incorporates the entire myeon. This Section will only discuss existing embedded controls for elderly and physically challenged individuals.

AWC has established SEP and has been engaging regularly with elderly member of the communities within the onshore direct AoI. Examples of such engagements are presented in Table 7-22. AWC has located the Project Office in readily accessible location for vulnerable groups and has been supporting activities requested by the local community aiming to benefit community and local residents. The grievance mechanism is available and open to all community members and is providing a space for individuals to report their grievances using printed forms. Furthermore, the Project will communicate with the community representative to stay updated on community concerns and voices.

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TABLE 7-22 ACTIVITIES WITH THE VULNERABLE GROUPS

Date	Description
Jun,2024	Supported the 11th Nakwol-myeon Resident's Day event
Oct,2023	Supported the Anmado Festival
Oct,2023	Supported the Songam 1-ri Village Festival
Aug,2023	Supported the 10th Nakwol-myeon Resident's Day event
May,2023	Supported the 31st Baeksu-eup Resident's Day event
May,2023	Supported the Beopseongpo Youth Association Filial Piety Banquet
Apr,2023	Supported the 18th Yeomsan-myeon Elderly Welfare Banquet
Nov,2022	Supported the 17th Yeomsan-myeon Elderly Welfare Banquet
Oct,2022	Supported the Changwoo Fishing Village Association event
July,2022	Supported the Hyanghwa Island Fishing Village Association event
May,2022	Supported a tour for Songido residents to study advanced offshore wind farms
Nov,2022	Supported a tour for Anmado residents to study advanced offshore wind farms
Nov,2021	Supported a tour for Anmado residents to study advanced offshore wind farms
Nov,2021	Supported the Songgak Fishing Village Association event
Nov,2021	Supported the Changwoo Fishing Village Association event
Aug,2020	Donated disaster relief funds for flood damage caused by heavy rain in Yeonggwang- gun

As part of international good practice, AWC will engage with local women organisation if needed, as part of the stakeholder engagement program to collect grievances on the potential adverse impact they may experience with special focus on disproportionate impacts.

Furthermore, AWC is planning to monitor the organisation representing the physically challenged individuals (e.g. Yeonggwang-gun Saemaul Association for Disabled Person situated at Gunnam-myeon, as there is no dedicated organisation for the physically challenged individuals situated within Yeomsan-myeon and Nakwol-myeon), to deliver Project information if/when required.

# 7.6.3 SIGNIFICANCE OF IMPACT

This Section assesses the impact significance to selected vulnerable groups, i.e. the elderly and physically challenged individuals. It should be noted that the magnitude of impacts for the vulnerable groups is higher compared with the typical community members (i.e. compared with assessments provided under Section 7.1.3), as the vulnerable groups are disproportionately impacted by the Project activities.

### 7.6.3.1 ELDERLY

The likelihood of the adverse impacts to the elderly is **Low** considering the short distance (i.e. approximately 1.5 km) of the onshore export, and the small number of construction vehicles to be used during the construction period (refer to Table 7-1) reducing adverse impact by traffic, noise and/or air quality, and that the Project will not operate any construction camp/worker's

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accommodations, and the number of workers at the peak is not significant, reducing the risk of exposure to the communicable diseases.

The magnitude of the adverse impacts to the elderly is Major considering should traffic impacts to occur, the impact would be disproportionately severe to the elderlies, and similarly with the communicable diseases. However, the Project has already established the series of embedded controls in regards to the onshore traffic management (refer to Section 7.1.2), and regarding communicable diseases, there are adequate number of public health centre facilities within the onshore direct AoI (refer to Table 6-21), and that the Project has already established series of embedded controls (refer to Section 7.6.2) reducing the magnitude of the impact should such event to occur. Lastly, AWC is undertaking regular engagement with the elderlies to collect their grievances. Therefore, considering the series of existing embedded controls, the magnitude of the adverse impacts to the elderly is adjusted to **Moderate**.

The significance of the adverse impacts to the elderly is considered **Minor** considering likelihood and the magnitude of the impact.

TABLE 7-23 IMPACT ASSESSMENT ON ELDERLY

Impact	Impact on the	elderly					
Extent	Household	M	lyeon	Co	ounty		Korea
	Impact extent be	expected	within the or	nshore di	rect AoI.		
Duration	Temporary	Sho	rt-term	Lon	g-term		Permanent
	Duration of the ir to the elderly will					ey ad	verse impacts
Scale	Negligible	S	Small	Me	edium		Large
	The scale of the partners of the ons				nall conside	ring t	the size and
Frequency	The frequency of and/or to constru					ure t	o the workers
Magnitude	Negligible	Minor	Mode	erate	Major		Positive
	The Project has a respect to onshor there are adequa direct AoI, and the controls reducing Furthermore, AW collect their grieve controls, the magestandard controls.	e traffic m te number lat the Proj the magni C is undert ances. The	anagement, of public he ject has alre tude of the i aking regula erefore, cons	and rega alth cento ady estal impact sh ar engage idering th	ording common the facilities we consider the constant of the c	unica withir s of e vent he el exist	able diseases, in the onshore embedded to occur. derlies to ing embedded
Likelihood	Low		Мес	lium			High
	The likelihood of short distance (i. number of construction reducing adverse will not operate a number of worke to the communication.	e. approxir uction vehi impact by ny constru rs at the pe	nately 1.5 ki cles to be us traffic, nois ction camp/ eak is not sig	m) of the sed durin e and/or worker's	onshore ex g the constr air quality, a accommoda	port, uctiond and the tions	and the small n period hat the Project , and the

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Impact	Impact on the	elderly			
Significance	Negligible	Minor	Moderate	Major	Positive

No additional mitigation measures are required as the impact significance for the elderly was Minor, however, AWC will continue to monitor the relevant groups as part of the stakeholder engagement activities a good industrial practice. The significance of the residual impact remains **Minor.** 

# 7.6.3.2 PHYSICALLY CHALLENGED INDIVIDUALS

The likelihood of the adverse impacts to the physically challenged individuals is **Low** considering the short distance (i.e. approximately 1.5 km) of the onshore export, and the small number of construction vehicles to be used during the construction period (refer to Table 7-1), and that the onshore export cable will be buried along the right-of-way of the public road (i.e. not expected to impact the vehicular traffic), which collectively reducing adverse impact by traffic, noise and/or air quality, and that the Project will not operate any construction camp/worker's accommodations, and the number of workers at the peak is not significant, reducing the risk of exposure to the communicable diseases.

The magnitude of the adverse impacts to the physically challenged individuals is Major considering should traffic impacts to occur, the impact would be disproportionately severe to this vulnerable group, and similarly with the communicable diseases. However, the Project has already established the series of embedded controls with respect to onshore traffic management (refer to Section 7.1.2), and regarding communicable diseases, there are adequate number of public health centre facilities within the onshore indirect AoI (refer to Table 6-21 and that the Project has already established series of embedded controls (refer to Section 7.6.2) reducing the magnitude of the impact should such event to occur. Therefore, considering the series of existing embedded controls, the magnitude of the adverse impacts to the physically challenged individuals is adjusted to **Moderate**.

The significance of the adverse impacts to the physically challenged individuals are considered **Minor** considering likelihood and the magnitude of the impact.

TABLE 7-24 IMPACT ASSESSMENT ON PHYSICALLY CHALLENGED INDIVIDUALS

Impact	Impact on the ph	ysically challenged	individuals	
Extent	Household	Myeon	County	Korea
	Impact extent be ex	xpected within the or	shore indirect AoI.	
Duration	Temporary	Short-term	Long-term	Permanent
		act is expected to be e during the construc	short-term as the ke ction period.	ey adverse impacts
Scale	Negligible	Small	Medium	Large
		cential impact is cons are activities of the Pi	idered small conside oject.	ring the size and

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Impact	Impact on the	physically cha	llenged individ	uals		
Frequency			l minor as the ph to construction			
Magnitude	Negligible	Minor	Moderate	Major	Positive	
	respect to onsh there are adequ direct AoI, and controls reducin Therefore, cons	ore traffic mana uate number of p that the Project ng the magnitud sidering the serie	hed the series of gement, and regarded in the series of the impact series of existing embrysically challengers.	arding communion ore facilities withing blished series of hould such event oedded controls,	cable diseases, on the onshore embedded to occur. the magnitude	
Likelihood	Low	<b>Low</b> Medium High				
	Low considerin number of cons that the onshor road (i.e. not e reducing advers will not operate	g the short distant struction vehicles be export cable we expected to impact to impact by trafer any constructions at the peak	pacts to the phy nce of the onsho to be used durin ill be buried alor of the vehicular t fic, noise and/or n camp/worker's is not significant	ore export, and the construction of the construction of the right-of-ware field of the column of the column of the column of the construction of t	ne small on period, and ay of the public lectively that the Project s, and the	
Significance	Negligible	Minor	Moderate	Major	Positive	

No additional mitigation measures are required as the impact significance for the physically challenged individuals was Minor, however, AWC will continue to monitor the relevant groups as part of stakeholder engagement activities and the grievances to be collected in a timely manner, as a good industrial practice. The significance of the residual impact remains **Minor.** 

### 7.6.3.3 WOMEN

The likelihood of the Project activities resulting in adverse impacts on women, including gender-based violence and harassment (GBVH), is considered **Medium**. This reflects the broader contextual risk factors in South Korea, global patterns of GBVH underreporting, and the potential for social tensions associated with the temporary influx of migrant workers during construction.

Although the Project plans to implement embedded controls, these measures alone are not sufficient to fully mitigate GBVH risks—especially in the absence of detailed worker accommodation and welfare protocols at this stage.

If such adverse incidents were to occur, the magnitude of impact on women is expected to be **Moderate**, given the personal, social, and psychological consequences that GBVH entails.

Therefore, the significance of the impact on women is assessed as **Moderate**, based on the combination of medium likelihood and moderate consequence.

In addition to GBVH risks, the Project also recognizes that many women—particularly elderly women—are engaged in traditional marine-based livelihoods such as nearshore shellfish harvesting and fish processing. Disruptions to access or fishing patterns may lead to loss of

income and shifts in intra-household dynamics, including women's role in decision-making. These livelihood-related gendered impacts will be more comprehensively assessed following the completion of the FDI process.

Other gender-specific risks include women's limited access to project information or grievance channels due to digital or social constraints, and unequal opportunities to participate in skill development for wind energy due to age, education, or caregiving roles. In addition, potential in-migration of younger, male technical workers may influence local gender dynamics and service demands.

In alignment with IFC guidance, the Project will incorporate gender-sensitive measures and GBVH safeguards into future updates of the ESMP and LRP, and strengthen engagement with women's groups and local services to ensure proactive prevention and grievance redress.

TABLE 7-25 IMPACT ASSESSMENT ON WOMEN

Impact	Impacts to won escalation of the				I/or Project	resulting in an
Extent	Household	Муео	n	C	ounty	Korea
		d to the onshor r economically	re indirec with the	t AoI— <sub>I</sub> project	particularly in area. Theref	AoI and, in certain communities that fore, the spatial
Duration	Temporary	Short-te	erm	Lor	ıg-term	Permanent
		phase, particula				y occurring during of labor influx and
Scale	Negligible	Smal	L	М	edium	Large
	Considering the rishort onshore calzone—the scale of Small.	ole route (appro	oximately	1.5 km	n) and limited	ect—such as a d construction cur, is assessed as
Frequency	The frequency of low rates of gend relative to nation the temporary incacknowledged.	er-based violer al averages. Ho	nce report wever, gl	ted in Y Iobal pa	eonggwang- itterns of und	gun (Section 6.5.3) derreporting and
Magnitude	Negligible	Minor	Mode	rate	Major	Positive
	the magnitude of	harm is expect to the serious	ed to be	Moder	ate should a	mpacts on women, ny GBVH incidents rsonal effects that
	In addition, disru shellfish gathering and economic ind	g—could impac				
Likelihood	Low	Me	edium			High
	The likelihood of a livelihood disruption considering broad	ion, and unequ	al particip	pation—	is assessed	as <b>Medium</b> ,

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Impact		omen by Projec the gender base		d/or Project res	sulting in an
				ıral limitations in Iding opportuniti	
Significance	Negligible	Minor	Moderate	Major	Positive

AWC will integrate gender-sensitive engagement strategies, strengthen communication with women's groups, and monitor gender-related grievances and risks throughout the construction and operational phases. This includes issues related not only to GBVH, but also livelihood disruption, limited access to project information, and unequal participation in skills development or employment opportunities.

These measures will be supported by the implementation of the Client Code of Conduct, Stakeholder Engagement Plan (SEP), and the Grievance Mechanism.

Targeted engagement will also include outreach to elderly women involved in traditional fisheries and nearshore livelihoods, particularly following the FDI-based livelihood assessment.

As part of good international industry practice and in alignment with IFC Performance Standards, AWC will also ensure that all workers—including subcontracted and migrant workers—are subject to behavioural codes and gender-based violence prevention training.

These mitigation and monitoring efforts are expected to significantly reduce the overall risk of gender-based adverse impacts. Therefore, the residual impact is currently assessed as **Minor**.

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# 8. SUMMARY OF THE SOCIAL IMPACT

This Section provides overall summary of the SIA (refer to Table 8-1)

TABLE 8-1 SUMMARY OF SOCIAL IMPACTS

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
Onshore Traffic	The community members may experience traffic impacts during Project construction activities, particularly along narrow rural roads and access routes in Songam-ri.  With a short onshore export distance (~1.5 km) but a moderate number of vehicle movements (estimated 6-10 heavy vehicle trips per day over 6-8 weeks), the likelihood is considered Medium.	<ul> <li>Speed limit will comply with Article 43 of the Air Quality Conservation Act and Annex 14 of Article 58, Paragraph 4 of the Enforcement Rule (20 km/h on site).</li> <li>Project to utilize low vibration equipment and provide prior notification to residents when necessary.</li> <li>Traffic Management Plan (TMP) will include provisions for vehicle scheduling, signage, pedestrian safety, and advance community notification.</li> </ul>	Minor	Minor
	With the Project's embedded mitigation measures, the magnitude remains Moderate.			
Onshore Noise	The community members may experience noise impacts during Project construction activities.  Although the construction area is not heavily populated, daily movement of heavy vehicles and equipment over a 6-8 week period may cause disturbance to nearby agricultural facilities.  The likelihood is considered Medium, and the magnitude is assessed as Minor based on the Regulatory EIA and embedded noise suppression measures. Therefore,	<ul> <li>Project in compliance with the [Guidelines for Noise and Vibration Management at Construction Sites].</li> <li>Construction activities to avoid quiet hours if possible and concentrated use of equipment with proper management of the entire process.</li> <li>Noise Management Plan will align with IFC EHS Guidelines and include advance notice to residents when high-noise equipment is planned.</li> </ul>	Minor	Minor

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	the overall significance of noise impact is assessed as Minor.			
Onshore Air Quality	Community members may experience health issues due to air quality impacts during the construction.	Project will mitigate impacts in accordance with the Clean Air Conservation Act Enforcement Rule Article 58.	Minor	Minor
	Although the Project involves a short construction corridor, regular movement of 6–10 heavy vehicles per day over 6–8 weeks may cause temporary emissions of dust and pollutants near sensitive receptors.	<ul> <li>Project to control dust generated by neavy equipment and minimize the occurrence of large-scale air pollutants.</li> <li>To minimize the impacts, there will be spraying of water, managing of speed limits, operation of vehicle washing facilities and the focus areas to be dust prone areas.</li> </ul>		
	The likelihood is considered Medium. The magnitude is assessed as Minor, considering that the Project's contribution to PM2.5 is negligible ( $\sim$ 0.1 $\mu$ g/m³) and embedded mitigation measures are in place. The overall significance is assessed as Minor.	<ul> <li>Air Quality Management Plan Will Include Sitesspecific dust response protocols and periodic observation near residential receptors and farmlands.</li> </ul>		
Offshore Traffic	Operation of the vessels can lead to increased vessel traffic and other health and safety impacts from potential resulting by adding vessel complexity around the area.	• The Project conducted the MTSA in accordance with the local regulations and is guided to establish a dedicated monitoring center additionally to the VTS, with the lighting and navigational aids to be installed	Minor	Minor
	The scenarios identified during the Maritime Traffic Safety Assessment indicated the possibility of collision to be low, resulting to Low likelihood. The magnitude is adjusted to Moderate, with the embedded controls and overall resulting to Minor significance.	to provide safety.		

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
Community Health	The sudden influx of workers increases the risk of communicable disease transmission, which may affect the health and well-being of community members, particularly in areas where workers are housed in accommodations within local villages or towns.  The likelihood is Medium, considering that the Project will not operate centralized construction camps or dedicated accommodations, resulting in increased interaction between workers and nearby residents. This housing model reduces centralized oversight and may elevate exposure potential if not properly managed.  The magnitude is Minor, given that there are adequate healthcare facilities within the onshore direct AoI and the Project has embedded a number of preventive controls, including health screening, hygiene protocols, and coordination with local public health services.  In light of this, the significance of the impact on community health is assessed as Minor.	<ul> <li>EPC Contractors will be required to develop and implement a Safety Management Plan that includes worker hygiene and health protocols.</li> <li>The Project's Environmental and Social Management System (ESMS) includes procedures to monitor community health conditions and manage communicable disease risks.</li> <li>Regular internal audits under the ESMS will verify compliance with health and safety procedures.</li> <li>The Project will coordinate with local public health institutions (e.g., Anma-do Clinic) to establish and track community health indicators.</li> <li>A grievance mechanism is in place and available to both workers and local residents to report any health-related concerns.</li> <li>Public health materials and awareness campaigns will be shared through community channels to promote prevention and early reporting.</li> </ul>	Minor	Minor
Security	Mismanagement of security activities may result to impacts to communities.  The security management market is dominated by large and integrated security service providers ensuring protection in which the likelihood is Low,	<ul> <li>Licensed security service provides will be subcontracted and the service providers to be regulated under the Security Services Industry Act which include background checks for all employees.</li> <li>Security Management Plan</li> </ul>	Negligible	Negligible

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	with Minor magnitude as the security personnel in South Korea is legally for possession of firearms. This resulted to Negligible level of significance.			
Occupational Health and Safety	Potential risks of health and safety risks during the construction phase, which include working at heights, confined spaces, maritime accidents noise/vibration and manual handling.  Typical industrial average indicates the Medium likelihood of impact and the magnitude is Moderate consideration of embedded controls. This results to Moderate significance.	<ul> <li>AWC Occupational Health, Safey and Security policy which ensures health, safety and security of personnel and visitors requiring every worker to be involved in identification assessment and control of workplace hazards.</li> <li>Implementation of Health, Safety Risk Management Program.</li> <li>Application of voluntary principles on security and human rights.</li> <li>Implement and subsequent review of Occupational Health and Safety (OHS) risk.</li> <li>Trainings will be provided which include safety induction training, toolbox meeting.</li> <li>Audits and inspection will be undertaken on an annual basis and report to the management.</li> <li>Marine Coordination Plan</li> <li>HSSE Management Plan</li> <li>Project Wide Emergency Response Plan Grievance Mechanism where workers can freely report their health and safety related concerns and grievances.</li> </ul>	Moderate	Minor
Worker's Right	Workers may be exposed to excessive working hours, insufficient breaks, unclear payment structures, and risks related to supply chain labor management. Additional concerns include fair treatment, non-discrimination, equal opportunity, and the potential for abuse of foreign migrant workers due to language barriers or limited awareness of their rights—even when they hold valid	<ul> <li>The Labor Standards Act in Korea fulfills the requirements of ILO Conventions C029, C138, and C182.</li> <li>The Project's Code of Conduct (CoC) applies to all contractors, subcontractors, developers, partners, project managers, supplier consultants, agents, intermediaries, brokers, and other third parties, setting minimum standards for labor and human rights protections.</li> </ul>	Moderate	Minor

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	work permits. Risks associated with forced or child labor must also be considered.	<ul> <li>Foreign migrant workers will receive explanations of their contracts and the CoC— including health, safety, and grievance</li> </ul>		
	The likelihood is assessed as Medium, recognizing that although Korea has strong labour laws, foreign workers engaged in unskilled roles may be less familiar with their rights and face challenges in accessing redress mechanisms.	procedures—in a language they can understand.  The Project will establish a grievance mechanism that is accessible to all workers, with translated forms and communication materials provided in relevant languages.		
	The magnitude is Moderate, considering that violations of labor rights can lead to significant reputational, legal, and social consequences for the Project, even if affecting a limited number of individuals.			
	As such, the significance of the impact on workers' rights is assessed as Moderate			
Accommodation	Inappropriate management of worker accommodation may result in adverse impacts on workers' rights, dignity, and health—especially in cases where accommodations lack consistent oversight, sanitation, or safety standards. These risks are elevated in non-camp arrangements where accommodations are across local communities or nearby cities. The likelihood of impact is assessed as Medium, given the Project's decision not to operate centralized construction camps and instead utilize existing lodging facilities, which may vary in quality and accessibility. The absence of direct management or control mechanisms increases the need for consistent	<ul> <li>The Employer's Code of Conduct applies to all parties involved in the Project and reinforces non-negotiable standards for worker wellbeing, including accommodation;</li> <li>All lodging facilities must comply with the Special Act on the Safety Control and Maintenance of Establishments and the Building Act;</li> <li>EPC Contractors are responsible for reviewing and verifying the conditions of worker accommodation prior to use;</li> <li>The Site Construction Management Plan (SCMP) includes provisions for offshore accommodation, requiring EPC Contractors to conduct inspections based on a standardized checklist (Appendix F of the SCMP);</li> </ul>	Minor	Minor

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	standards and regular oversight by contractors.  The magnitude of the impact is assessed as Minor, based on embedded controls already in place and those being developed, such as contractor inspection protocols, accommodation guidelines, and grievance mechanisms. These measures aim to mitigate risks associated with poor housing conditions, limited sanitation, and social isolation.  Accordingly, the significance of the impact on worker accommodation is assessed as Minor.	<ul> <li>A Worker's Accommodation Management Plan Framework has been established to guide future monitoring and compliance;</li> <li>A grievance mechanism is in place and accessible to all workers to raise accommodation-related concerns.</li> </ul>		
Fisheries	Fisheries can experience changes in fish catch due to impact on marine ecosystem so as the reduction of fishing areas due to physical presence of the WTGs.  The likelihood of the impact is considered Medium. While not all of the 1,500 potentially affected individuals will fish within the WTG Area at all times, overlapping use patterns and seasonal dependence indicate a moderate probability of disruption.  The magnitude of impact is also assessed as Moderate, considering the long-term nature of spatial restrictions, potential changes in catch or cost, and the vulnerability of some fishers—especially those with limited ability to adapt or shift fishing zones.	<ul> <li>Established the 'Anma-do OWF Vessel Navigation Guidelines' through the MTSA to let fishers use OWF area as a passage for fishing activities.</li> <li>FDI in preparation process to identify the exact impact and calculate proper amount of compensation.</li> <li>The result of the FDI will be incorporated to LRP and the implementation of LRP will be monitored through the annual ESMS internal audit.</li> <li>AWC acknowledges that some livelihood impacts may extend beyond the project lifecycle and will consider cumulative effects from other developments in its ongoing stakeholder engagement and LRP design.</li> </ul>	Moderate	Minor

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
Supply Chain	The adverse impact to workers in the supply chain incorporates exploitation of the supplier, child/forced labour, issues with foreign workforce, gender/diversity impact and the occupational health and safety hazards.  The impact is Low as components to be sourced either from Europe or globally, in which countries where implement rigorous human rights regulations and the magnitude will be Moderate as Project is committed series of mitigation measures, therefore, the significance will be Minor.	<ul> <li>The project will ensure below policies to be communicated to suppliers when entering supply chain contracts.</li> <li>Client Code of Conduct</li> <li>Anti-Corruption Policy</li> <li>AWC reserves the right to request antibribery and corruption due diligence information and/or documentation upon engagement or at any time during their collaboration.</li> <li>SCMP includes mechanisms for supply chain self-assessment procedure.</li> <li>ESMS to monitor adequate implementation of the embedded controls.</li> </ul>	Moderate	Minor
Socioeconomics	Communities can be impacted both positively and negatively due to the Project driven changes especially in terms of livelihood of local community.  Socio-economic impacts due to the Project is considered Positive.	<ul> <li>AWC is expected to hire local residents from construction/operation stage.</li> <li>AWC will continue to discuss the local job creation initiative with the communities and such measure will be the main control for managing socio-economic impacts.</li> <li>A transparent and participatory community benefit sharing mechanism will also be considered to enhance long-term positive outcomes.</li> </ul>	Positive	Positive
Elderly	The elderly can be affected by traffic impacts and community health issues, as they often have reduced mobility and lower immunity to communicable diseases.  The likelihood of the impact is low, given the short distance of the onshore export cable route, and the absence of a construction camp for the Project.  Additionally, the peak number of workers is not high which further reduces exposure to communicable diseases.	<ul> <li>AWC with SEP, will monitor the elderly member of the communities within the onshore direct AoI.</li> <li>Continue to monitor the relevant groups as part of the stakeholder engagement activities.</li> </ul>	Minor	Minor

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	Project have embedded controls such as Traffic Management Plan. With the numbers of health care facilities around with AWC continuous engagement to collect the elderly's grievances, the magnitude will be Moderate. In considerate of this result, the significance is Minor.			
Physically Challenged Individuals	They are more vulnerable to traffic impact and/or community health.  The likelihood of the impact is Low considering short distance of the onshore export, small number of construction vehicles in use and with no construction camp and accommodation reducing the risk of exposure to communicable diseases.	<ul> <li>The Project is providing accessible location for vulnerable groups and has been supporting activities that will benefit the vulnerable groups of the community.</li> <li>Continue to monitor the relevant groups as part of stakeholder engagement activities and the grievances to be collected in a timely manner.</li> </ul>	Minor	Minor
	With onshore traffic management measures and with the number of health facilities around the Magnitude of the impact will be Moderate, and the Project also have series of mitigation measures. In considerate of these levels, the significance is Minor.			
Women	The likelihood of the Project causing adverse impacts on women is considered Medium, in line with broader social risks, including GBVH, disruption to traditional livelihoods, and gendered access constraints.	<ul> <li>Continue to monitor the relevant groups as part of stakeholder engagement activities and the grievances to be collected in a timely manner.</li> <li>The Project engage with local women organisation if needed, as part of the project engage with local women</li> </ul>	Moderate	Minor
	While GBVH risk is managed through embedded controls (e.g., Code of Conduct, SCMP), additional risks such as loss of income, limited grievance access,	stakenoner engagement program to conect grievances on the potential adverse impact they may experience.		

Impact	Description	Embedded Controls & Planned Mitigation	Impact Significance	Significance of the Residual Impact
	and reduced participation in wind energy employment are relevant, especially for older women engaged in fishing-related activities.  While such impacts may not be widespread, their magnitude would be	<ul> <li>Gender-sensitive communication tools will be used to ensure women have equal access to information and compensation processes.</li> <li>Further livelihood-specific impacts will be assessed after the FDI process.</li> </ul>		
	Moderate It they occur			

ESIA FOR PROJECT ANMA SUMMARY OF THE SOCIAL IMPACT

# APPENDIX A PROJECT DESCRIPTION





# **ESIA for Project Anma**

**Project Description** 

7 October 2024

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# Signature Page

7 October 2024

# **ESIA** for Project Anma

# **Project Description**

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# **Acronyms and Abbreviations**

AWC Anma Offshore Wind Energy

AZE Alliance for Zero Extinction

BAP Biodiversity Action Plan

bgs below ground surface

CCRA Climate Change Risk Assessment

CHA Critical Habitat Assessment

CPS Cable Protection System

CRM Collision Risk Modelling

EBL Electric Business License

E&S Environmental and Social

EAAF East Asian–Australasian Flyway

EHS Environmental, Health and Safety

EIA Environmental Impact Assessment

EMS Environmental Management System

EP Equator Principles

EPAP Equator Principles Action Plan

EPC Engineering, Procurement and Construction

EPFI Equator Principles Financial Institutions

ERM Korea Ltd.

EN Endangered

ESAP Environmental and Social Action Plan

ESDD Environmental and Social Due Diligence

ESG Environmental Social Governance

ESIA Environmental and Social Impact Assessment

ESMP Environmental and Social Management Plan

ESMS Environmental and Social Management System

ESS Environmental and Social Standards

EXC Export Cable

FA Fisheries Act

FDA Fishery Damage Assessment

FDIA Fishery Damage Impact Assessment

FOU Foundation

FTEs Full Time Employees

GHG Greenhouse Gas

GIPS Geotechnical Information Portal System

GIS Gas Insulated Switchgear

HDD Horizontal Directional Drilling

H&S Health and Safety

HR Human Resources

IAC Inter Array Cable

IBA Important Bird Areas

IBAT Integrated Biodiversity Assessment Tool

ID Identity

IESC Independent E&S Consultant

IFC International Finance Corporation

IPA Important Plant Areas

ISO International Organisation for Standardisation

IUCN International Union for Conservation of Nature

KBA Key Biodiversity Area

KEPCO Korea Electric Power Corporation

kV kilovolt

LC Least Concern

LIDAR Laser Imaging, Detection And Ranging

LRP Livelihood Restoration Plan

LURIS Land Use Regulation Information Service

MEMA Marine Environment Management Act

MoE Ministry of Environment

NGIC National Groundwater Information Center

NGO Non-Governmental Organisation

OHS Occupational, Health and Safety

ONS Onshore Substation

OSS Offshore Substation

OPPW Occupancy Permit of Public Waters

PDCA Plan-Do-Check-Act

PFDIA Preliminary Fishery Damage Impact Assessment

PS Performance Standard

PWMRA Public Waters Management and Reclamation Act

Q Quarter

RAP Resettlement Action Plan

SEP Stakeholder Engagement Plan

SGRE Siemens Gamesa Renewable Energy

SOP Standard Operating Procedure

TJB Transition Joint Bay

TMS Tele-Monitoring System

VU Vulnerable

WBG World Bank Group

WGS World Geodetic System

WTG Wind Turbine Generator

XLPE Cross-linked polyethylene

# 1. OVERVIEW

The Project consists of two (2) phases - Phase 1 and Phase 2 - corresponding to Electricity Business Licences (EBL 1 and EBL 2). The Project will utilise Siemens Gamesa Renewable Energy's (SGRE) SG DD-236 14.0 MW wind turbine generators (hereinafter as "WTGs"). Phase 1 consists of 16 WTG units with a permitted total capacity of 224 MW and Phase 2 consists of 22 WTG units with a permitted total capacity of 308 MW. The Project's wind turbines area will take up a total area of 80 km² of public waters.

The WTGs will be connected via 66kV Inter-Array submarine cables (hereinafter as "IACs" - Phase 1: circa 51 km and Phase 2: circa 69 km) to the Offshore Substation (hereinafter as "OSS") (125°56'32.86"E, 35°19'44.00" N<sup>1</sup>).

230kV export submarine cables (hereinafter as "EXCs") will then be routed to the Onshore Substation (hereinafter as "ONS"). And then, using 154kV onshore cables, electricity will be connected to the West Yeonggwang (or Seoyeonggwang) KEPCO onshore substation operated by KEPCO.

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<sup>1</sup> WGS 84

# 2. PROJECT LOCATION

The area proposed for installation of the Project WTGs (the Site) is situated in the Yellow Sea (or West Sea) West of Anma Island, Yeonggwang-gun, Jeollanam-do, South Korea. The coordinates of the WTGs, as well as the Project location and its surrounding areas are presented in Table 2.1 and Figure 3.1 respectively.

Table 2.1 Coordinate for the WTGs

MTC ID fa	Coordinate (WGS	84)	WTO ID for	Coordinate (WG	S 84)
WTG ID for Phase 1	Longitude ±dddmmss.ss	Latitude ±ddmmss.ss	WTG ID for Phase 2	Longitude ±dddmmss.ss	Latitude ±ddmmss.ss
A01	125°50'4.5"	35°22'24.1"	C01	125°50'5.1"	35°19'2.58"
A02	125°50'39.6"	35°22'24.1"	C02	125°50'43.46"	35°19'2.59"
A03	125°51'14.7"	35°22'24.1"	C03	125°51'21.86"	35°19'2.63"
A04	125°51'49.7"	35°22'24.0"	C04	125°52'0.23"	35°19'2.63"
A05	125°52'24.8"	35°22'24.0"	C05	125°52'38.63"	35°19'2.65"
A06	125°52'59.9"	35°22'24.0"	C06	125°53'17.03"	35°19'2.68"
A07	125°53'34.9"	35°22'24.0"	C07	125°53'55.39"	35°19'2.7"
A08	125°54'10.0"	35°22'23.9"	C08	125°54'33.79"	35°19'2.72"
A09	125°54'45.1"	35°22'23.9"	C09	125°55'12.15"	35°19'2.73"
A10	125°55'20.1"	35°22'23.8"	C10	125°55'50.55"	35°19'2.75"
A11	125°55'55.2"	35°22'23.8"	C11	125°56'28.91"	35°19'2.79"
A12	125°56'30.3"	35°22'23.8"	D01	125°50'5.56"	35°17'8.65"
B01	125°50'5.4"	35°20'55.2"	D02	125°50'43.94"	35°17'8.59"
B02	125°52'13.8"	35°20'55.2"	D03	125°51'22.33"	35°17'8.56"
B03	125°54'22.3"	35°20'55.0"	D04	125°52'0.67"	35°17'8.53"
B04	125°56'30.7"	35°20'54.9"	D05	125°52'39.05"	35°17'8.49"
			D06	125°53'17.4"	35°17'8.46"
			D07	125°53'55.78"	35°17'8.41"
			D08	125°54'34.17"	35°17'8.4"
			D09	125°55'12.51"	35°17'8.35"
			D10	125°55'50.9"	35°17'8.33"
			D11	125°56'29.24"	35°17'8.27"
Offshore Substation	125°56'32.86"	35°19'44.00"			

Source: AWC dated 18 July 2023

# 3. PROJECT HISTORY

# 3.1 Key Milestones

The achieved milestones of the Project have been summarized below:

- October 2017: Installation of a wind condition measuring instrument (Hoeng-do onshore LiDAR) for preparation of electric business license (EBL) for Phase 1;
- April 2019: Acquired EBL for Phase 1;
- May 2019: Installation of wind condition gauge (offshore LiDAR) for preparation of EBL for Phase 2:
- July 2020: Acquired EBL Alteration for Phase 1, and acquired EBL for Phase 2;
- April 2022: Submission of draft Environmental Impact Assessment for Anma Project (hereinafter Draft Regulatory EIA);
- December 2022: Submission of Final Regulatory EIA (updated January 2023);
- June 2023: Submission of Supplementary Regulatory EIA;
- July 2023: Obtained EIA agreement;
- August 2023: Marine Traffic Safety Assessment approved.

# 3.2 Versions and Alterations

- Version 1: Draft Regulatory EIA, dated April 2022;
- Version 2: Final Regulatory EIA, dated December 2022 and Supplementary Regulatory EIA, dated June 2023; and
- Version 3: As of August 2023, it is anticipated that the preferred components, layouts and selected construction methods that are incorporated into this ESIA will result in an update process in the EIA and all necessary permits (hereinafter Version 3 AWF).

**History of Project Components** Table 3.1

	WTGs numbers & capacity	WTGs type	OSS location & type	IAC location & type	EXC location & type	ONS location & type	Onshore cable location & type	Other
Version 1	528 MW 66 WTGs- 8 MW	WinDS8000 Doosan	Juk-do onshore substation	66 kV Phase 1: 43.3 km (3 strands) Phase2: 57.8km (4 strands)	154kV XLPE 800 mm² 3-core, (approx. 40.4km)	1508-1 Jisan-ri, Baeksu-eup, Yeonggwang-gun, Jeollanam-do	154kV XLPE 800 mm² single core, 12 wires (about 7.6km)	Songi-do overhead line: approx. 1.5 km
Version 2	546 MW 39 WTGs- 14 MW	SG DD-236 SIEMENS Gamesa	Offshore substation 125°53'55.2"E 35°19'45.45"N	66 kV Phase 1: approx. 32.0 km Phase2: approx. 36.2 km	154kV XLPE 800 Ⅲ 3-cores, (approx. 44.9km)	286-3 Songam-ri, Yeomsan- myeon, Yeonggwang-gun, Jeollanam-do	154kV XLPE 2000 mm² single core, (approx. 1.1km × 6 strands)	No overhead line
Version 3	532 MW 38 WTGs- 14 MW	No change	Offshore substation 125°56'32.86"E 35°19'44.00"N	66 kV Phase 1: approx. 51 km Phase 2: approx. 69 km	230kV XLPE 3-core Approx.41.6 km route length	No change	154kV XLPE single core Approx. 1.5 km route length	No change

Source: Draft Regulatory EIA /Final and Supplementary Regulatory EIA / Version 3 AWF

Note: Some final designs are still under validation process and thus will be updated in relevant documents later.

Source: Version 3 AWF

Location of Project Site Figure 3.1

Version: Final Project No.: 06927940692794 Client: Anma Offshore Wind Energy Co., Ltd; www.erm.com

7 October 2024

# 4. PROJECT FACILITIES AND COMPONENTS

The main Project components as per the Final Regulatory EIA is summarized below:

- A wind turbines area divided in 2 areas (i.e. Phase 1 and Phase 2), comprised of 38 WTGs with a permitted total capacity of 532 MW;
- 38 SGRE's SG DD-236 14.0 MW WTGs comprised of the tower, foundation, nacelle, hub, rotor, and rotor blades;
- circa 120 km of 66 kV Inter-Array Cables (total for both Phase 1 and Phase 2);
- One (1) Offshore Substation (converting 66 kV to 230 kV);
- Two circuits, each circa 42 km of 230kV offshore export cable (connecting from Offshore Substation to the mainland);
- A Transition Joint Bay at the landing point, receiving the 230kV offshore export cable;
- Two circuits, circa 150m each of 230kV onshore cable (connecting the Transition Joint Bay to the Onshore Substation);
- One (1) Onshore Substation (converting 230 kV to 154kV);
- Two circuits, each circa 1.5 km of 154 kV onshore cable (connecting from the Onshore Substation to the KEPCO substation being the grid connection point); and
- One (1) Korea Electric Power Corporation (KEPCO) substation (owned and operated by KEPCO).

# For clarity:

One circuit of offshore export cable refers to one (1) cable, each with three (3) power conductors within the cable.

One circuit of onshore cable refers to three (3) cables, each with one (1) power conductor within the cable.

# 4.1 Wind Turbine Generator

The Version 3 configuration of wind turbines layout has been developed with 38 WTGs of 14 MW nominal capacity. Given the geographical context of the project site within the 'Northeast Asia-Oceania' Migratory Bird Flyway (EAAF) and its proximity to the breeding habitats of various marine bird species (such as Chilsan Island), a decision was made to curtail the number of WTGs and accordingly modify their arrangement. Elaborated information pertaining to the individual WTGs can be found in Table 4.1.

Table 4.1 WTG details

WTG Components	Parameter	Specifications
WTG	Type Class	SG DD-236
ROTOR	Туре	3-bladed, horizontal axis
	Position	Upwind
	Diameter (m)	236
	Length of blade (m)	115
	Swept area (m²)	43,500
TOWER	Туре	Cylindrical and tapered tubular
	Hub height (m)	153
	Total height from Mean Sea Level (MSL) (m)	270
OPERATION DATA	Cut in Wind speed (m/s)	3
	Nominal Power (m/s)	at 12
	Cut out wind speed (m/s)	28

Source: Final and Supplementary Regulatory EIA / Version 3

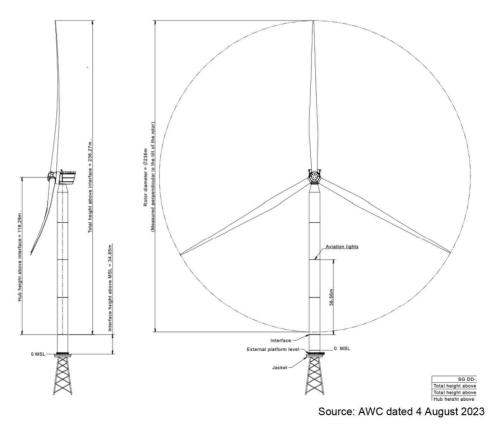


Figure 4.1 **Conceptual Figure of the WTG** 

# 4.2 Inter-array Cables (IAC) and Offshore Export Cables (EXC)

The Version 3 design entails all the IAC being concentrated to an Offshore Substation, and then, offshore export cables that directly connects with the mainland. The Version 3 plan is for all the inter array submarine cables to be 66 kV cross linked polyethylene cable (XLPE) submarine cable, the length of which is circa 51 km and 69 km for Phase 1 and Phase 2 respectively, and two (2) circuits of 230kV offshore export cables, each with a length of circa 42 km.

Detailed location of IAC and Offshore EXC are presented above in Figure 3.1.

The IACs will be installed to a target burial depth of between 3.0m to 3.5m, utilising a Jet Trencher for post lay burial operations.

The EXCs will be installed to a target burial depth of between 2.0m to 3.5m, depending on the water depth along the export cable route, where deeper water sections would have a deeper target burial depth. Burial operations for the EXCs will be performed by a Jetting Sled, through simultaneous lay and bury operations.

The EXC will be installed at landfall within a Horizontal Directional Drill (HDD) duct, approximately 120m in length under the sea. Upon exiting the HDD, the EXC will be held in situ via permanent beach clamps which horizontally hang off the cable and permanently secure them in position. The EXC will be terminated externally into a GIS arrangement as fitted to the ONS within a joint bay with land cable connections into the ONS GIS Building alternatively they will be pulled and terminated directly into the ONS GIS.

# 4.3 Offshore Substation (OSS)

An offshore substation is selected instead of installing it in Juk-do as the final design to avoid civil complaints and to reduce the overall impact to the environmental damage and the fisheries. Compared to the onshore substation, the offshore option will involve fewer external cables, resulting in relatively less environmental and fishing impacts. The opinions on the review of the offshore substation design were collected during the information session for residents as part of Draft Regulatory EIA and are documented therein. Insights and viewpoints concerning the assessment of the offshore substation design were obtained during a resident information session, a pivotal aspect of the Draft Regulatory EIA.

Currently the Offshore Substation is planned to transform the 66kV transmission voltage from the wind turbines into 230kV export transmission voltage. Table 4.2 shows the detail specification and location of OSS.

Detailed location of OSS is presented above in Figure 3.1.

Table 4.2 Offshore Substation Details

Parameter	Specification
Size	Topside: 32 m (Width) x 37 m (Depth) x 30 m (Height) Jacket: 23 m (Bottom Width) x 19 m (Top Width) x 55 m (Height) Pile: 73 m (Depth) x 12 EA
Location	125°56'32.86" E, 35°19'44.00" N

Source: Final Regulatory EIA / Version 3

# 4.4 Onshore Export Cable

The current landfall is in Yeomsan-myeon, Yeongwang-gun, Jeollanam-do. AWC plans to construct a 154 kV buried onshore cable route from their Onshore Substation to KEPCO onshore substation (West Yeonggwang KEPCO onshore substation). Most of the onshore underground cable route is expected

to be routed along existing roads, or then through rice paddies having been acquired and close other renewable power plants.

# 4.5 Onshore Substation (ONS)

The power that is generated (690 V) by the WTG will be boosted by the primary boosting transformer (690 V/66 kV) and then transmitted by the IAC (66 kV) to the Offshore Substation. The power will then be directed to the secondary step-up transformer (66 kV/154 kV) at the Offshore Substation, which will be connected to the grid connection point; Seoveonggwang substation operated by KEPCO.

The AWC Onshore Substation will be in 286-3 Songam-ri, Yeomsan-myeon, Yeonggwang-gun, Jeollanam-do. The area is planned to be 1,550.41 m<sup>2</sup>. The station will consist of three (3) buildings which include a substation, an office, and a warehouse. The office will consist of a three-story building, while the substation and warehouse will consist of one-story building each.

Figure 3.1 above shows the detail location of project site for onshore area.

# 4.6 Military Radar

The Project will install two radars structures upon request of Ministry of Army to compensate the obstruction generated by the WTGs once installed. The details and the localizations of the two structures shall be kept confidential due to the nature of the facilities. One radar shall be operating offshore and one radar shall be operating onshore.

The offshore radar will comprise a foundation and a top-side structure. The foundation type is yet to be determined and the dimensions of the top-side structure is expected to be no greater than 10mx10mx7.5. The construction is expected to start no earlier than Q1 2026. A maximum of 20 staff is estimated at peak time of installation phase and operation shall be unmanned.

The onshore radar will be installed on Imja island in Sinan province. The structure is estimated to comprise a steel tower measuring 5x5x10 meters. The construction is expected to earlier than May 2025 and the duration of the construction shall not exceed 6 months. A maximum of 7 persons shall be estimated during civil works and a maximum of 4 persons during steel tower installation. Operation phase planned to be unmanned.

#### 4.7 Bird Monitoring Radar

As stipulated in the Final Regulatory EIA, a bird monitoring radar is scheduled to be established on Hoeng-do for a duration of one (1) year. The installation of the 2D Terma Scanter-5000 Radar is anticipated. The cabinet housing the monitoring system is approximately 3 meters in height, 3 meters in depth, and 3 meters in width. The antenna's height is estimated to be around 5.5 meters.

The exact placement and specifications of the monitoring equipment are currently pending finalization. Comprehensive details concerning this aspect will be provided at a later stage once they are confirmed.

## 4.8 Operation and Maintenance (O&M)

The project encompasses two distinct O&M harbour alternatives. One existing facility and one other location are matching the requirements for O&M harbour, however, the location of the O&M harbour is not available before lease contract execution due to high competition risk.

#### 5. SUMMARY ON CONSTRUCTION ACTIVITIES

The purpose of this section is to provide a comprehensive overview of the high-level description of the EPC Package components and the EPC Schedule for the Project.

The EPC Package consists of various components essential for the successful execution of the Project. These components are designed to ensure optimal efficiency and adherence to project requirements. The detailed breakdown of each component, along with its specific role in the Project, is outlined below.

# 5.1 Foundations (FOU)

# 5.1.1 Pin-pile

The supplier responsible for the pin-pile has not been determined. The piling process involves several essential steps, including fabrication, transportation, and pile driving. The detailed description of each process involved in the piling work is outlined below:

- 1. Fabrication of piles;
- 2. Load out of piles onto vessel or barge;
- 3. Transport to offshore site; (In parallel prepare noise mitigation measures if required)
- 4. Upending of piles by installation vessel;
- 5. Lower piles to ground and wait until self-penetration is reached;
- 6. Lower hammer on top of pile;
- 7. Start pile driving activities until target depth is reached; and
- Once done, lift hammer back to installation vessel, move to next location

Their primary activities are scheduled to commence in the third quarter of 2024, with the peak of their operations anticipated in the second quarter of 2025. At its peak, the estimated number of staff required will be approximately 200, and this period is expected to last for approximately 10 weeks. It is projected that around 10% of the workforce will consist of foreign workers, and the planned worker's accommodation is estimated to accommodate around 100 individuals.

#### 5.1.2 Jacket

Jacket will be installed on the pin-pile after completion of pin-pile installation. The supplier responsible for the fabrication and installation of the windfarm jacket has not been finalized. The installation process of the windfarm jacket can be described as follows:

- Fabrication of jacket;
- Load out of Jacket onto vessel or barge;
- 3. Transport to offshore site lift jacket from barge and insert into pre-installed pin piles;
- 4. Start grouting to finalize connection between jacket and grout; and
- 5. Move to next location

The main activities of the Project are scheduled to commence in the fourth quarter of 2024, with the peak of their activities anticipated in the first quarter of 2026. During this peak period, it is estimated that approximately 200 staff members will be involved, and the activity is expected to last for approximately 10 weeks. It is anticipated that around 10% of the workers will be foreign workers.

# 5.2 Inter Array Cable

Installation of Inter Array Cable (IAC) will commence after completion of jacket installation. The contractor responsible for the installation of IAC has not been finalized. The main activity for the IAC installation is scheduled to begin by mid 2026. The IAC installation will involve the following key activities.

- Site Preparation
- 1. Preparation of equipment for pull-in at the WTG foundation / OSS Jacket;
- 2. Pre-lay grapnel run on the seabed following the cable route; and
- 3. Pre-lay survey.
- Installation
- 1. Mobilization of installation vessels and crew accommodations:
- 2. Cable loading from factory onto the installation vessel;
- 3. Removal of J-tube covers;
- 4. Cable pull-in (1st Cable End) including Cable Protection System (CPS) installation;
- 5. Cable surface laying;
- 6. Cable pull-in (2nd Cable end) including CPS installation;
- 7. Post lay survey;
- 8. Post lay burial, with jet trencher;
- Post lay burial survey;
- 10. Remedial burial (if necessary only) with a jet trencher;
- 11. Remedial burial survey; and
- 12. Installation of rock bags on CPS at the WTG/ OSS (if necessary only).

During the peak period of their activities, which is expected to span from March 2026 to January 2027, the IAC installation team will consist of an estimated total of 100 - 160 staff members. These staff members will be further divided into two main groups. The first group, known as the Office Support / Management Teams, will comprise approximately 20 - 60 staff members. They will be responsible for providing support and managing various aspects of the IAC installation project. For their convenience, these team members will be accommodated in either major cities or locations near / around the port area depending on their function and role.

The second group is the Transport and Installation Vessel Crew, which will consist of approximately 80 - 100 staff members. This group will play a direct and hands-on role in the actual installation of the IAC. During their construction activities at sea, they will be accommodated either on the cable laying vessel (CLV) and a Service Operations Vessel (SOV).

Throughout the peak period, AWC expects that 10 - 30% of the workers in both groups may be foreigners. As the Project progresses and specific roles and requirements become clearer, further details regarding staffing and accommodation arrangements will be finalized and communicated accordingly.

# 5.3 Offshore Export Cable

Export Cable installation will occur almost in parallel to IAC installation. The contractor responsible for the installation of the offshore export cable has not been determined yet. The preparation of the offshore export cable route (such as HDD and TJB construction) is scheduled to begin in October

2024, with the actual cable installation set to commence in February 2026. The process of offshore export cable installation is described below:

- Site Preparation
- 1. Construction of HDD;
- 2. Set up of silt curtains at excavation sites;
- 3. Excavation of Shore end landing approach;
- 4. Set up of pre-excavated trench wall stabilisation measures;
- 5. Set up of cable rollers in the pre-excavated trench;
- 6. Preparation of equipment for pull-in at the OSS Jacket and at the TJB area at the ONS;
- 7. Pre-lay grapnel run on the seabed following the cable route; and
- 8. Pre-lay survey.
- Installation
- 1. Mobilization of installation vessels with cable storage and cable handling equipment;
- 2. Laying of cable section 1 of 2, on Circuit 1
  - a. Cable loading from factory onto the installation vessel;
  - b. Transit of the installation vessel from the factory to the near shore section near the mainland;
  - c. Cable shore end landing / beach pull-in (1st Cable End);
  - d. Backfilling of pre-excavated trenches of Circuit 1
  - e. Simultaneous lay and bury of the cable with a jetting sled towards the OSS;
  - f. Lay down of cable end at the middle of the route (near Gagi Island);
  - g. Return to the submarine cable factory;
- 3. Laying of cable section 1 of 2, on Circuit 2
  - a. Cable loading from factory onto the installation vessel;
  - b. Transit of the installation vessel from the factory to the near shore section near the mainland;
  - c. Cable shore end landing / beach pull-in (1st Cable End);
  - d. Backfilling of pre-excavated trenches of Circuit 2;
  - e. Simultaneous lay and bury of the cable with a jetting sled towards the OSS;
  - f. Lay down of cable end at the middle of the route (near Gagi Island);
  - g. Return to the submarine cable factory;
- Laying of cable section 2 of 2, on Circuit 1
  - a. Cable loading from factory onto the installation vessel;
  - b. Transit of the installation vessel from the factory to the OSS;
  - c. Cable pull-in (1st Cable End) at the OSS;
  - d. Simultaneous lay and bury of the cable with a jetting sled towards the middle of the route;
  - e. Lay down of cable end at the middle of the route (near Gagi Island);
- 5. Laying of cable section 2 of 2, on Circuit 2
  - a. Cable loading from factory onto the installation vessel;

- b. Transit of the installation vessel from the factory to the OSS;
- c. Cable pull-in (1st Cable End) at the OSS;
- d. Simultaneous lay and bury of the cable with a jetting sled towards the middle of the route;
- e. Lay down of cable end at the middle of the route (near Gagi Island);
- 6. Cable joint assembly, deployment and protection of both Circuits 1 and 2 offshore joints;
- 7. Post installation survey;
- 8. Remedial burial (if necessary only) with a jet trencher; and
- 9. Installation of rock bags on CPS at the OSS (if necessary only).

During the peak of construction activities, expected to span from March to November 2026, approximately 170 to 260 staff will be involved in the installation process. These personnel will be divided into two main groups: the Office Support / Management Teams and the Transport and Installation Vessel Crew.

The Office Support / Management Teams, comprising about 20 to 60 staff, will be accommodated either in major cities or near / around the port depending on their function and role. Their primary responsibilities will be overseeing and managing various aspects of the installation, ensuring efficient coordination, and addressing any operational challenges.

On the other hand, the larger portion of the workforce, consisting of approximately 150 to 200 staff, will be the Transport and Installation Vessel Crew. These workers will be accommodated onboard the vessels (Cable Laying Barge, Support Barges, Jointing Jack Up Barge, etc.) during their activities.

#### 5.4 Offshore Substation

The supplier responsible for the installation of offshore substation has not yet been determined. Installation of pin-pile and jacket will commence by end of 2026, and topside installation will follow. The process of offshore substation installation is described below:

- 1. Fabrication of substation components from outside of Korea (Singapore, Indonesia, or India);
- 2. Transportation of the assets (jacket, pin piles and topside) to site; and
- 3. Jacket installation, piling, topside installation and commissioning.

Estimated number of staff during installation and commissioning of Offshore Substation is approximately 12-24, 20% of whom are expected to be South Korean nationals, with the remainder foreign passport holders. Peak of their activities is expected to be December 2025 and January 2026 then September and October 2026. And all staff will be accommodating in vessel during their activities.

## 5.5 Onshore Substation (ONS) & Onshore Cable

The supplier responsible for the installation of onshore substation and Onshore Cable has not yet been determined. Their main construction activities will commence November 2024. The process of Onshore Substation and Export Cable installation are described below:

- Installation of Onshore Cable between TJB and Onshore Substation;
- 2. Transmission cable installation between ONS KEPCO substation;
- 3. Civil work: piling, foundation etc;
- 4. Electrical work: mesh grounding;
- 5. ONS building construction;
- Electrical system installation;

- 7. Commissioning; and
- 8. KEPCO inspection.

The peak of construction activities is expected to be Q1 (construction) and Q3 (installation of electrical system) 2026 with each peak period expected to be 10 weeks respectively. Estimated number of staff during the peak will be approximately 70 - 100 (including vessel crew) who will be accommodated in Yeonggwang or Gwangju during their activities.

#### 5.6 WTG

Siemens Gamesa Renewable Energy has been appointed as the WTG supplier for the Project. Their main construction activities are scheduled to commence around January 2027. The assembly and installation process of WTG are described below:

- Transport of WTG components to the pre-assembly harbour;
- 2. Pre-assembly works (e.g. assembly of tower sections final preparation of blades and nacelles);
- 3. Transport of pre-assembled main components to the offshore windfarm;
- 4. WTG installation;
- 5. WTG commissioning and testing; and
- 6. Hand over to the Operations and Maintenance.

During the peak period of their activities, which is expected to span from Q2 to Q3 2027 (approximately 16 - 25 weeks), Siemens Gamesa Renewable Energy will conduct commissioning and installation processes concurrently. The estimated number of staff during this phase will be around 150 - 170 personnel, which includes the vessel crew. These staff members, predominantly foreigners, will be lodged in general accommodation such as hotels and motels in Mokpo, Gwangju, and the vessels while carrying out their tasks.

# 5.7 Transition Joint Bay (TJB)

However, it is planned that the transition joint bay installation will be incorporated as part of the Offshore Export Cable installation. The process of transition joint bay installation is described below:

- 1. Set up access roads, site fencing, site offices, etc;
- 2. HDD:
- 3. Excavate TJB Location;
- Construction of TJB;
- 5. Install accessories and appliances inside the TJB;
- 6. Backfill of surrounding location; and
- 7. Reinstatement of condition (i.e. removal of fencing, site offices, access roads etc.).

During the peak of construction activities, which is expected to last approximately eight (8) weeks, the estimated number of staff will be around 15 to 30 individuals. Most of these staff members are expected to be South Korean nationals. To support their activities, suitable accommodations will be provided in either Yeonggwang or Gwangju.

#### 5.8 Operation and Maintenance (O&M)

For the O&M, there might be modification work to the expected site. The following modification would be anticipated:

#### **Onshore**

- Ground clearing and excavation works;
- 2. Laying of reinforced concrete (specifically for the warehouse and parking area);
- 3. Office building and warehouse construction (as per above dimensions);
- 4. Installation of water, electrical and sewage connectivity, depending on existing infrastructure; and
- 5. Car parking gravel and road gravel (depending on existing infrastructure).

#### Offshore

- 1. Development and re-paving of the existing quayside, including potential excavation and laying of reinforced concrete;
- 2. Marine dredging and construction of pontoons;
- 3. Installation of quayside crane;
- 4. Installation of water, electrical and sewage connectivity, depending on existing infrastructure; and
- 5. Car parking gravel and road gravel (depending on existing infrastructure).

# 5.9 Military Radar

The onshore radar tower is expected to have a height of approximately 14 meters and an area of 47.0 m<sup>2</sup>. However, due to the confidentiality of military radar operations, specific details regarding the location and specifications will be updated at a later stage once they are finalized.

# 5.10 Bird Monitoring Radar

The installation of the 2D Terma Scanter-5000 Radar is anticipated. The cabinet housing the monitoring system is approximately and maximum 3 meters in height, 3 meters in depth, and 3 meters in width. The antenna's height is estimated to be around 5.5 meters.

The exact placement and specifications of the monitoring equipment are currently pending finalization. Comprehensive details concerning this aspect will be provided at a later stage once they are confirmed.

ESIA FOR PROJECT ANMA Project Description

EPC SCHEDULE

# **EPC SCHEDULE**

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Figure 6.1 shows the general EPC schedule planned. The EPC Schedule is a vital component of the Project plan, serving as a comprehensive roadmap that outlines the timeline and sequence of activities for the successful execution of the Project.

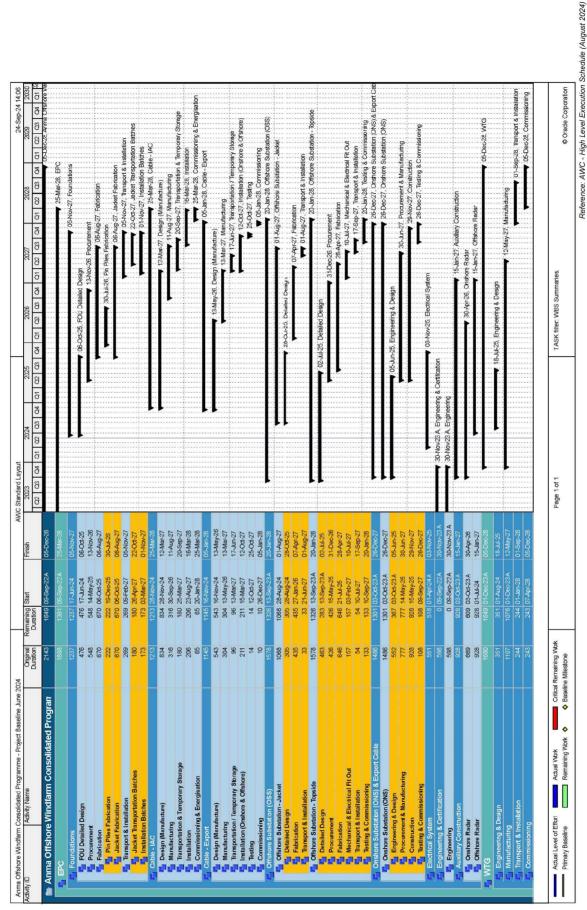


Figure 6.1 Anma Offshore Wind Power Project Master Plan

ESIA FOR PROJECT ANMA SUMMARY OF THE SOCIAL IMPACT

# APPENDIX B SOUTH KOREAN REGULATION VS IFC PS

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
Equ	Equator Principles 4		
Ħ	Principle 1 - Review and Categorisation Equator Principles Financial Institutions (EPFI) will, as part of its internal environmental and social (E&S) review and due diligence, categorise the project based on the magnitude of potential environmental and social risks and impacts, including those related to human Rights, climate change, and biodiversity.  Such categorisation is based on the IFC's E&S categorisation process.	The framework regulation for the environmental impact assessment (EIA) process in South Korea is the Environmental Impact Assessment Act (EIAA). The EIAA Enforcement Decree Article 31 and its Annex 3 provides a list of projects subject to an EIA, however, the EIAA does not require a developer to categorise the project.	The South Korean E&S Regulation is not aligned with Principle 1 and there is a gap, however, the Project was categorised during the lender ESDD.
N	Principle 2 - E&S Assessment Principle 2 requires the developer to conduct an appropriate assessment process to address the relevant E&S risks and scale of impacts of the proposed project. Additionally, principle 2 requires Furthermore, the Regulation on Environmental the developer to include assessments of potential Impact Assessment Report Development adverse Human Rights impacts and climate change risk.  RoEIARD, Reference number: the Ministry of Environment Notification No. 2021-300) Article Annage risk.  RoEIARD, Reference number: the Ministry of Environment Survey and Assessment of Offshore Wind Powe (Reference number: 11-1480000-001759-01) provides ministerial guideline on how to perform an EIA, and survey methodology etc.  The scope of the projects specific EIA is decided during the review of Preliminary Statement for Assessment (PSA, also commonly referred as a Scoping Report) by the EIA Review Committee per the EIAA Article 8.	The EIAA Enforcement Decree Article 31 and its Annex 3 provides list of projects subject to an EIA, and EIAA Enforcement Decree Annex 1 provides details on the contents of an EIA report.  Furthermore, the Regulation on Environmental Impact Assessment Report Development (RoEIARD, Reference number: the Ministry of Environment Notification No. 2021-300) Article 33 Annex 6, and the Draft Manual on Environmental Survey and Assessment of Offshore Wind Power (Reference number: 11-1480000-001759-01) provides ministerial guideline on how to perform an EIA, and survey methodology etc.  The scope of the project specific EIA is decided during the review of Preliminary Statement for Assessment (PSA, also commonly referred as a Scoping Report) by the EIA Review Committee as per the EIAA Article 8.	The EIAA sets out framework for EIA. However, the EIAA and the associated EIA guideline/manual are known to have gaps against EP4 and IFC PS. The typical gaps related to offshore ESIAs include:  Insufficient/minimal consideration of impact on livelihood;  Narrow definition of stakeholders;  Insufficient/minimal consideration of climate change risk assessment;  Insufficient/minimal consideration of human right impact assessment; and/or  Insufficient consideration of biodiversity (e.g. marine mammal/bat etc.).  AWC has undertaken a series of supplementary ESIAs and developed E&S Management Plans to address gaps between local regulations and EP4 requirements, which includes:  Social Impact Assessment;  Human Right Impact Assessment;  Climate Change Risk Assessment;  Biodiversity Impact Assessment;  Biodiversity Impact Assessment;

Š	. EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
			<ul> <li>Livelihood Restoration Plan;</li> <li>Supply Chan Management Plan; and</li> <li>ESMP with number of subplans</li> </ul>
м	Principle 3 - Applicable E&S Standards Principle 3 requires an EPFI to evaluate the project's compliance with the applicable standards. For the projects located in Designated Countries, the assessment process evaluates compliance with relevant host country laws, regulations and permits that pertain to E&S issues. Host country laws meet the requirements of:  Principle 2 E&S Assessments;  Principle 4 E&S Management Systems and EP Action Plans;  Principle 5 Stakeholder Engagement; and  Principle 6 Grievance Mechanisms.	Applicable E&S Standards for South Korea is mainly stipulated under the EIAA and associated guideline/manual provided by the Ministry of Environment (e.g. RoEIARD or Draft Manual on Environmental Survey and Assessment of Offshore Wind Power	Although South Korea is categorised as a Designated Country, the EIAA and the associated EIA guideline/manual are known to have gaps against EP4 and IFC PS.  AWC has undertaken a supplementary ESIA and developed a series of management plans to address the identified gaps. Refer to items under Principles 2, 4, 5, and 6 for detail.
4	Principle 4 - E&S Management system and EP Action Plan Principle 4 E&S Management System (ESMS) and EP Action Plan (EPAP) requires the project owner to develop and maintain an ESMS, and an ESMP to address issues raised in the E&S related assessment process and incorporate actions required to comply with the applicable standards. Where the applicable standards are not met to the EPI's satisfaction, an EPAP is to be developed.	The EIAA requires a developer to perform monitoring on the commitments agreed in an EIA, and details on the monitoring is stipulated under the EIAA Enforcement Regulation Article 19, and EIAA Enforcement Decree Annex 1.	EIAA does require monitoring but does not require a developer to establish project specific ESMS including corrective actions process to ensure compliance.  AWC developed a Project-specific ESMS, ESMP, and a series of subplans in accordance with the Environmental and Social Action Plan (ESAP) from the lender ESDD.
ю	Principle 5 - Stakeholder Engagement Principle 5 requires the developer to demonstrate effective stakeholder engagement, as an ongoing process in a structured and culturally appropriate manner, with affected communities, workers, interested person including authorities and nongovernmental organisations (NGOs) and, where relevant, other stakeholders.	The EIAA requires a developer to perform Public Presentation at the communities within the area of influence (defined under the EIA) as per the EIAA Article 25.	The EIAA does not cover in depth the potential social impact/risk of the proposed development, and therefore, the boundary of stakeholder and associated engagement is narrow compared with how the EP4 and IFC PS defines stakeholder.  AWC has developed a project specific SEP aligned with EP4 and IFC PS.

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
v	Principle 6 - Grievance Mechanism  Principle 6 requires the project owner to establish effective grievance mechanisms, which is designed for use by affected communities and workers, as appropriate, to receive and facilitate resolution of concerns and grievances about the project's E&S performance.  The grievance mechanism is required to be scaled to the risks and impacts of the project and to have Affected Communities as its primary user. It will seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate, readily accessible, at no cost, and without retribution to the party that originated the issue or concern.	No requirements with regards to grievance mechanism under the South Korean E&S regulations.	The South Korean E&S Regulation is not aligned with Principle 6.  AWC has developed a project specific grievance mechanism aligned with EP4 and IFC PS.
	Principle 7 - Independent Review Principle 7 requires the project owner to undertake an environmental and social due diligence (ESDD) with an independent environmental and social consultant for all Category A and, as appropriate, Category B projects.	No requirements with regards to Independent Review under the South Korean E&S regulations.	The South Korean E&S Regulation is not aligned with Principle 7. AWC has undertaken the lender ESDD
ω	Principle 8 - Covenants Principle 8 requires the project owner to covenant in the financing documentation to comply with all relevant host country E&S laws, regulations and permits in all material respects, and relevant requirements of EP.	There are no requirements with regards to Covenants under the South Korean E&S regulations. However, there are series of clauses under the EIAA that enforces a developer to implement agreed mitigation measures/commitment their EIA:  Administrative Fine: Minor non-compliances/violations with regards to mitigation measures/commitment as per the EIAA Enforcement Decree Annex 10;  Penalty Surcharges: As per the EIAA Article 40-2, when the head of the approving agency issues an order to reinstate any site/development, but the reinstatement is practically impossible given considerable obstacles it will cause to the lives of the	The South Korean E&S Regulation is partially aligned with Principle 8.  AWC's project E&S requirements will be specified as covenants in the financing documentation.

Š	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s) residents, the national economy, and other public interests, he/she may impose a penalty surcharge amounting up to three percent of the total construction cost in lieu of the reinstatement order;	Gaps
		Suspension: Major non-compliances/violations with regards to mitigation measures/commitment as per the EIAA could result in reinstate/construction suspension order as per the EIAA Article 40; and/or	
		<ul> <li>Litigation: The head of the approving agency and/or the Ministry of Environment (MOE) can potentially process litigation.</li> </ul>	
0	Principle 9 - Independent Monitoring and Reporting Principle 9 requires for the project owner to conduct E&S performance monitoring in order to assess the project compliance with the EP after financial close and over the life of the loan for all Category A and. as appropriate. Category B	The EIAA Article 36 stipulates that the developer to perform the perform post environmental impact monitoring.  Independent/third party Furthermore, as regulator EIAs have gaps against the IFC PS and/or EP4, the post environmental impact monitoring inevitably would also contain gaps.	While the EIAA stipulates the need to perform the environmental impact monitoring, the EIAA does not require that the monitoring to be performed by independent/third party Furthermore, as regulatory EIAs have gaps against the IFC PS and/or EP4, the post environmental impact monitoring inevitably would also contain gaps.
	projects.		In this regard, the South Korean E&S Regulation is considered partially aligned with Principle 9.  AWC will undertake independent monitoring and reporting aligned with EP4 requirements
10	Principle 10 Reporting and Transparency Principle 10 requires all Category A and, as appropriate, Category B projects to at a minimum, a summary of the EIA and ESIA is	The EIAA Article 66 stipulates that the Ministry of Environment to disclose the approved EIA in their flatabase (i.e. the Environmental Impact Assessment Support System, EIASS <sup>54</sup> ).	While the EIAA stipulates the EIA disclosure on EIASS, since the scope of Local EIA has gap against EP4 and IFC PS, inevitably the disclosed information solely as per the EIAA does not contain all necessary information mentioned in EP4/IFC PS.
	a summary of human rights and climate change risks and impacts when relevant.		The South Korean E&S Regulation is partially aligned with Principle 10.

와 <mark>환경영향평가정보지원시스템 (eiass.go.kr)</mark>

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
			AWC will undertake independent monitoring and reporting aligned with EP4

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
F	IFC Performance Standards		
<b>ਜ</b>	PS1 - E&S Assessment and Management System PS1 requires the developer to establish and maintain an ESMS appropriate to the nature and scale of the Project and commensurate with the level of its E&S risks and impacts. The ESMS is required to incorporate the following elements:  Policy;  Management programs;  Organizational capacity and competency;  Emergency preparedness and response;  Stakeholder engagement; and  Monitoring and review.	The EIAA requires a developer to perform monitoring on the commitments agreed in an EIA, and details on the monitoring is stipulated under the EIAA Enforcement Regulation Article 19, and EIAA Enforcement Decree Annex 1.	EIAA does not require a developer to establish project specific ESMS.  AWC has developed a project specific ESMS aligned with IFC PS.
7	PS1 - E&S Policy PS1 requires the developer to establish an overarching policy defining the E&S objectives and principles that guide the project to achieve sound E&S performance.	No requirements with regards to E&S policy under the South Korean E&S regulations.	The South Korean E&S Regulation is not aligned with PS1 - E&S Policy.  AWC has developed and implement project specific E&S policies
m	PS1 - Identification of Risks and Impacts PS1 requires the developer to establish and maintain a process for identifying the E&S risks and impacts of the project.	The EIAA Enforcement Decree Article 31 and its Annex 3 provides list of projects subject to an EIA, and EIAA Enforcement Decree Annex 6 provides details on the contents of an EIA report.  Furthermore, the RoEIARD Article 33 Annex 6, and the Draft Manual on Environmental Survey and Assessment of Offshore Wind Power (Reference number: 11-1480000-001759-01) provides ministerial guideline on how to perform an EIA, and survey methodology etc.  The scope of the project specific EIA is decided during the review of PSA by the EIA Review Committee as per the EIAA Article 8.	The EIAA sets out framework for EIA. However, the EIAA and the associated EIA guideline/manual are known to have gaps against EP4 and IFC PS, which the typical gaps include:  Insufficient/minimal consideration of impact on livelihood;  Narrow definition of stakeholders;  Insufficient/minimal consideration of climate change risk assessment;  Insufficient/minimal consideration of human right impact assessment; and/or  Insufficient consideration of biodiversity (e.g. marine mammal/bat etc.).

NO.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
			AWC has undertaken a series of supplementary ESIAs and developed E&S Management Plans to address gaps between local regulations and EP4 requirements, which includes:
			<ul><li>Social Impact Assessment;</li></ul>
			<ul> <li>Human Right Impact Assessment;</li> </ul>
			<ul> <li>Climate Change Risk Assessment;</li> </ul>
			<ul> <li>Biodiversity Impact Assessment;</li> </ul>
			<ul><li>Stakeholder Engagement Plan;</li></ul>
			<ul> <li>Livelihood Restoration Plan;</li> </ul>
			<ul> <li>Supply Chan Management Plan; and</li> </ul>
			<ul> <li>ESMP with number of subplans</li> </ul>
4	PS1 - Management Programs PS1 requires the developer to establish management programs that will describe mitigation and performance improvement measures and actions that address the identified E&S risks and impacts of the project.	The EIAA requires a developer to perform monitoring on the commitments agreed in an EIA, and details on the monitoring is stipulated under the EIAA Enforcement Regulation Article 19, and it's Annex 1.	While the EIAA require a developer to perform monitoring on the commitments agreed in an EIA, it does not specifically require a developer to establish an E&S management program.  AWC has developed project specific SEP, LRP, SCMP and ESMP with subplans as E&S management programs
Ŋ	PS1 - Organizational Capacity and Competency PS1 requires the developer to establish, maintain, and strengthen as necessary an organisational structure that defines roles, responsibilities, and authority to implement the ESMS.	No requirements with regards to organizational capacity and competency under the South Korean E&S regulations.	The South Korean E&S Regulation is not aligned with PS1 - Organizational Capacity and Competency.  As part of the ESMS, AWC has established an organisational structure that defines roles, responsibilities, and authority.
v	PS1 - Emergency Preparedness and Response PS1 requires the ESMS to establish and maintain an emergency preparedness and response system so that the developer, in collaboration with appropriate and relevant third parties, will be prepared to respond to accidental and emergency situations associated with the project in a	The Manual on Development and Review of Environmental Impact Assessment Report (MoDREIAR) dated 27 July 2018 established by the Korea Environment Institute (KEI, a governmental research institute) provides a high level guideline on developing response plans for natural disasters etc.	While the MoDREIAR request a developer to include emergency preparedness and response plan on natural disaster, it does not require a developer to consider project specific impacts/risks and develop tailored emergency preparedness and response plan at the detailed level required under the EP4/IFC PS. It should be noted that the MoDREIAR is not a compulsory

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	manner appropriate to prevent and mitigate any harm to people and/or the environment.		document/manual to be implemented during the EIA but only a recommended document. AWC has developed a project specific Emergency Response Plan (ERP) as a subplan of ESMS.
^	PS1 - Monitoring and Review PS1 requires the developer to establish procedures to monitor and measure the effectiveness of the management program, as well as compliance with any related legal and/or contractual obligations and regulatory requirements.	The EIAA requires a developer to perform monitoring on the commitments agreed in an EIA, and details on the monitoring is stipulated under the EIAA Enforcement Regulation Article 19, and it's Annex 1.	While the EIAA require a developer to perform monitoring on the commitments agreed in an EIA, it does not specifically require a developer to monitor the Project E&S performance against EP4/IFC PS.  As part of the ESMS, AWC has included Monitoring and Review procedures to assess the effectiveness of the ESMS, and will conduct independent monitoring and reporting as requested by the lender.
<b>∞</b>	PS1 - Stakeholder Engagement PS1 defines the stakeholder engagement as an ongoing process that may involve, in varying degrees, the following elements:  • Stakeholder analysis and planning; • Disclosure and dissemination of information, consultation and participation;  • Grievance mechanism; and  • Ongoing reporting to Affected Communities.  The nature, frequency, and level of effort of stakeholder engagement may vary considerably and will be commensurate with the project's risks and adverse impacts, and the project's phase of development.	The EIAA requires a developer to perform Public Presentation at the communities within the area of influence (defined under the EIA) as per the EIAA Article 13.	The EIAA does not cover in depth the potential social impact/risk of the proposed development, and therefore, the boundary of stakeholder and associated engagement is narrow compared with how the PE4 and IFC PS defines stakeholder.  AWC has developed a project specific SEP and grievance mechanism aligned with EP4 and IFC PS.
6	PS1 - External Communications and Grievance Mechanisms PS1 requires the developer to implement and maintain a procedure for external communications that includes methods to:  Receive and register external communications from the public;	No requirements with regards to external communications and grievance mechanism under the South Korean E&S regulations.	The South Korean E&S Regulation is not aligned with PS1 - External Communications and Grievance Mechanism.  AWC has established an external communication plan through the SEP and has developed a grievance mechanism for external complaints.

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	<ul> <li>Screen and assess the issues raised and determine how to address them;</li> <li>Provide, track, and document responses, if any; and</li> <li>Adjust the management program, as appropriate.</li> <li>In addition, the developer is required to establish a grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the developer's E&amp;S performance.</li> <li>The grievance mechanism should be scaled to the risks and adverse impacts of the project and have Affected Communities as its primary user. It should seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern.</li> </ul>		
10	PS1 - Ongoing Reporting to Affected Communities PS1 requires the developer to provide periodic reports to the Affected Communities that describe progress with implementation of the project Action Plans on issues that involve ongoing risk to or impacts on Affected Communities and on issues that the consultation process or grievance mechanism have identified as a concern to those communities.	The EIAA Article 66 stipulates that the Ministry of Environment to disclose the approved EIA and the post EIA environmental monitoring report(s) in the EIASS.	While the EIAA requires disclosure of EIA and the post EIA environmental monitoring report(s), it cannot be seen as "reporting" to Affected Communities, and the EIAA does not require developer to follow up on additional E&S risks/impacts identified during the ESIA.  AWC will disclose the Non-Technical Summary (NTS) to inform Affected Communities about the Project's implementation and has established an ongoing communication plan with Affected Communities through the communication strategy outlined in the SEP.
11	PS2 - Working Conditions and Management of Worker Relationship PS2 requires the developer to establish:  • Human Resources Policies and Procedures: The developer to adopt and implement human resources policies and procedures appropriate to its size and workforce that set out its approach to managing	The Employment Policy Framework Act provides legal framework with regards to:  Working Conditions and Terms of Employment;  Workers' Organizations (along with the Trade Union and Labour Relations Adjustment Act); and	While the Employment Policy Framework Act sets out basis for the human resources policies and procedures, the framework is intended for the state and not for private business entity such as AWC.  AWC has developed E&S policies and management plans to address the gaps, including:

No.		EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	•	workers consistent with the requirements of PS2 and national law;  • Working Conditions and Terms of Employment: Where the developer is a party to a collective bargaining agreement with a workers' organization, such agreement will be respected. Where such agreements do not exist, or do not address working conditions and terms of employment, the developer will provide reasonable working conditions and terms of employment;	Non-Discrimination and Equal Opportunity (along with the Equal Employment and Support for Work-Family Balance Act).  Furthermore, the Labour Standard Act Article 22, 23 and 24 provide provisions for retrenchment, and the Labour Standard Act Article 28 provide provisions with regards to grievance mechanism for workers.	<ul> <li>AWC Human Resources Policy, which includes human resources management procedures, working conditions and terms of employment; and</li> <li>A project specific grievance mechanism aligned with EP4 and IFC PS</li> </ul>
	•	<ul> <li>Workers' Organizations: In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively (i.e. South Korea), the developer will comply with national law;</li> <li>Non-Discrimination and Equal Opportunity: The Developer will not make employment decisions on the basis of personal characteristics9 unrelated to inherent ich contractions.</li> </ul>		
	• •	<ul> <li>Retrenchment: Prior to implementing any collective dismissals, the developer will carry out an analysis of alternatives to retrenchment; and</li> <li>Grievance Mechanism: The developer will provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns.</li> </ul>		
12		PS2 - Protecting the Work Force PS2 requires the developer to comply the following with respects to the work force protection:  • Child Labour: The developer will not employ children in any manner that is economically exploitative, or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.; and	With regards to the child labour, the Labour Standard Act Article 64 prohibits use of workforce below 15 years old or below 18 years old should the person is under educational institution defined under the Elementary and Secondary Education Act. Furthermore, the Labour Standard Act Article 7 prohibits any form of forced labour.	The South Korean E&S Regulation is aligned with PS2 - Protecting the Work Force.

Š.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	• Forced Labour: will not employ forced labour, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labour, such as indentured labour, bonded labour, or similar labour-contracting arrangements. The developer will not employ trafficked persons.		
13	PS2 - Occupational Health and Safety PS2 requires the developer to provide a safe and healthy work environment, taking into account inherent risks in its particular sector and specific classes of hazards in the developer's work areas, including physical, chemical, biological, and radiological hazards, and specific threats to women.	The Occupational Safety and Health Act and the Rules for Occupational Safety and Health Standards provide regulations on the worker's health and safety.	The South Korean E&S Regulation is aligned with PS2 - Occupational Health and Safety.
	The developer needs to take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards.		
14	PS2 - Workers Engaged by Third Parties With respect to contracted workers, PS2 requires the developer to take commercially reasonable efforts to ascertain that the third parties who engage these workers	The Labour Standard Act and Fair Transactions in Subcontracting Act set out requirements with regards to the workers engaged by third parties.	The South Korean E&S Regulation is aligned with PS2 - Workers Engaged by Third Parties.
	are reputable and legitimate enterprises and have an appropriate ESMS that will allow them to operate in a manner consistent with the requirements of PS2.		
15	PS2 - Supply Chain Where there is a high risk of child labour or forced labour in the primary supply chain, PS2 requires the developer to identify those risks consistent with PS2. If child labour or forced labour cases are identified, the developer needs to	South Korea law makers are in the process of developing the E&S regulations with regards to the supply chain management due to the increase pressure on improvement of the environment, social and governance (ESG) performance both in	The South Korean E&S Regulation is not aligned with PS2 - Supply Chain. AWC has developed project specific SCMP aligned EP4 and IFC PS.
	take appropriate steps to remedy them.	private and public sector.	
16	PS3 - Resource Efficiency PS3 requires the developer to implement technically and financially feasible and cost effective measures for	The RoEIARD Article 33 Annex 6 provides ministerial guideline on how to perform an EIA, survey methodology, and EIA contents,	The South Korean E&S Regulation is aligned with PS3 - Resource Efficiency.

Š.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	improving efficiency in its consumption of energy, water, as well as other resources and material inputs, with a focus on areas that are considered core business activities.	which includes greenhouse gases impact and consideration of resource efficiency such as water consumption.	
17	PS3 - Pollution Prevention PS3 requires the developer to avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release. This applies to the release of pollutants to air, water, and land due to routine, non-routine, and accidental circumstances with the potential for local, regional, and transboundary impacts.	The EIAA requires the developer to avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release.	The South Korean E&S Regulation is aligned with PS3 - Pollution Prevention.
18	PS4 - Community Health and Safety PS4 requires the developer to evaluate the risks and impacts to the health and safety of the Affected Communities during the project life-cycle and establish preventive and control measures consistent with good international industry practice (GIIP), such as in the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) or other internationally recognized sources.	The RoEIARD requires the developer to consider high-level risks and impacts to the health and safety of the Affected Communities.	While RoEIARD includes consideration of community health and safety risk/impact, it is generally known that it is not up to the level of the requirements of IFC PS, and is performed at high-level.  As part of the supplementary ESIA, AWC has undertaken a Social Impact Assessment that includes an evaluation of the risks and impacts to the health and safety of the Affected Communities.
19	PS4 - Security Personnel When the developer retains direct or contracted workers to provide security to safeguard its personnel and property, PS4 requires the developer to assess risks posed by its security arrangements to those within and outside the project site.  In making such arrangements, the developer will be guided by the principles of proportionality and good international practice <sup>55</sup> in relation to hiring, rules of	No particular laws/regulation stipulates the requirements with regards to security personnel for development projects.	The South Korean E&S Regulation is not aligned with PS4 - Security Personnel.  As part of the supplementary ESIA, AWC has undertaken a Social Impact Assessment that includes an evaluation of the risks and impacts of security personnel on the Affected Communities.

55 Including practice consistent with the United Nation's (UN) Code of Conduct for Law Enforcement Officials, and UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials

ON	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
00 W	conduct, training, equipping, and monitoring of such workers, and by applicable law.		
00	PS5 - General Requirement PS5 requires the developer to consider the following:  Project Design: Consider feasible alternative project designs to avoid or minimize physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits, paying particular attention to impacts on the poor and vulnerable;  Compensation and Benefits for Displaced Persons: When displacement cannot be avoided, the developer will offer displaced communities and persons compensation for loss of assets at full replacement cost and other assistance to help them improve or restore their standards of living or livelihoods, as provided in PS5;  Communities, including host communities, through the process of stakeholder engagement described in PS1.  Decision-making processes related to resettlement and livelihood restoration should include options and alternatives, where applicable;  Grievance Mechanism: Establish a grievance mechanism consistent with PS1; and  Resettlement and Livelihood Restoration Planning and Implementation: Where involuntary resettlement is unavoidable, either as a result of a negotiated settlement or expropriation, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be eligible for compensation and assistance, and discourage ineligible persons, such as opportunistic settlers, from claiming benefits.	The RoEIARD requires the developer to consider feasible alternative project designs to avoid or minimize environmental/physical impact from the Project.  Furthermore, the following regulations provides framework on issues with regards to: Compensation and Benefits for Displaced Persons, Community Engagement, and Resettlement and Livelihood Restoration Planning and Implementation:  The Fisheries Act;  The Public Waters Management and Reclamation Act;  The Acquisition of and Compensation for Land, etc. for Public Works Projects Act; and Appraisal of Real Estate Act.	The RoEIARD requires the developer to consider feasible alternative project designs frameworks for most of aspects of the general impact from the Project.  To avoid or minimize environmental/physical requirement of PS5, they do not provide specific requirement of PS6, and RV and Session and RV appraisal of Real Estate Act.  The Public Warters Management of Values and Appraisal of Real Estate Act.

omic  Int and  Int and  Values and  Values and  Immental  ates  Protection	No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
PS6 - Protection and Conservation of Biodiversity According to PS6, mitigation hierarchy should be applied, which includes biodiversity offsets that may be considered and Conservation of Biodiversity	17	the Displaced Persons may be classified the Displaced Persons may be classified al legal rights to the land or assets they are formal legal rights to land or assets, and to land that is recognized or der national law; or ecognizable legal right or claim to the chey occupy or use.  They occupy or use.  They occupy or use.  The developer to consider the airements of PS5 regardless of the ple affected. This will include at full replacement cost for land and at full replacement cost for land and st; and and (St) to compensate affected person nities and offer other assistance that these are provided in a onsistent, and equitable manner. The conomic displacement will be considered on affected persons or communities have ensation and other assistance according nents of the LRP and PS5, and are we been provided with adequate re-establish their livelihoods.	The following regulations provides framework on physical and economic displacement:  The Fisheries Act;  The Public Waters Management and Reclamation Act;  The Acquisition of and Compensation for Land, etc. for Public Works Projects Act; and Appraisal of Real Estate Act.	While the South Korean E&S Regulations provide framework on physical and economic displacement, the legal boundary of individuals subject to the same laws/regulations does not include all three (3) definitions of Displaced Persons listed in PS5.  The Project does not involve physical displacement; however, a Project-specific Livelihood Restoration Plan has been developed to compensate for potential economic displacement.
	22	PS6 - Protection and Conservation of Biodiversity According to PS6, mitigation hierarchy should be applied, which includes biodiversity offsets that may be considered	The EIAA, and associated environmental regulations of South Korea stipulates requirements with regards to the Protection and Conservation of Biodiversity.	While the South Korean E&S Regulations provide consideration of the Protection and Conservation of Biodiversity, Critical Habitats Assessment is not required, and the considered species are based on local regulation, and does not include

only after appropriate avoidance, minimization, and developer to consider Legally Protected and professional developers to consider Legally Protected and professional profess	No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
A biodiversity offset should be designed and implemented to achieve measurable conservation outcomes that can reasonably be expected to result in no net toss and preferably an expected to result in no net toss and content practices.  The design of a biodiversity offset must adhere to the illinearing again of biodiversity offset must adhere to the illinearing again of biodiversity offset must adhere to the illinearing again of a biodiversity offset must adhere to the illinearing again of a biodiversity offset must adhere to the illinearing and must be carried out in a distribution of a biodiversity offset must adhere to consider.  When the developer is considering the development of an offset design and implementation must be involved.  Furthermore, PSG requires the developer to consider certically and an advisor of significant importance to endamic and/or restricted-range species.  1. Habitat of significant importance to endamic and/or restricted-range species.  2. Habitat of significant importance to endamic and/or restricted-range species.  3. Habitat supporting globally significant concentrations of migratory species and/or congregatory species.  4. Highly threatened and/or unique ecosystems; and/or consider Legally Protected and Internationally Recognized Areas, and Invasive Allen Species.  5. Areas associated with key evolutionary processes.  Furthermore, PSG requires for the developer to consider Legally Protected and Internationally Recognized Areas, and Invasive Allen Species.  FSG- Management of Ecosystem Services as determined by the risks and impacts identification process, the developer will migrate cooxystem services.  8. Provisioning Services and impacts identification process, the developer will reconduct a systematic review to identify priority ecosystem.  8. Provisioning Services and evoloper to consider the impact to benefits e.g. conduct a systematic review to identify priority ecosystem.		only after appropriate avoidance, minimization, and restoration measures.	Furthermore, the RoEIARD requires the developer to consider Legally Protected and	consideration of internationally recognised species (e.g. species appears in the International
The design of a biodiversity offset must adhere to the in alignment with best available information and current practices.  When the developer is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved.  Furthermore, PS6 requires the developer to consider Critical Habitats where such areas are with high biodiversity value, including:  1. Habitat of significant importance to endemic and/or Endangered and/or Endangered species;  2. Habitat of significant importance to endemic and/or restricted-range species and/or congregatory species;  3. Habitat supporting globally significant concentrations of migratory species and/or unique ecosystems; and/or  5. Areas associated with key evolutionary processes.  Furthermore, PS6 requires for the developer to consider aspects of Ecosystem Services  9. Habitat of significant importance to endemic applications require a migratory species;  4. Highly threatened and/or unique ecosystems; and/or congregatory species;  6. An Highly threatened and/or unique ecosystems; and/or species;  7. Areas associated with key evolutionary processes.  Furthermore, PS6 requires for the developer to consider aspects of Ecosystem Services and Invasive Alian Species.  Forthermore, PS6 requires for the developer to consider aspects of Ecosystem Services and Invasive Alian Species.  Forthermore, PS6 requires for the developer to consider aspects of Ecosystem Services.  Forthermore, PS6 requires for the developer to consider aspects of Ecosystem Services.  Forthermore, PS6 requires for the developer to consider aspects of Ecosystem and Invasive Alian Services and increase, the developer will services and impacts identification process, the developer will and impacts identification process, the developer will services.  8. Provisioning Services: The Fisheries Act and impacts identification process, the developer to consider aspects of Ecosystem Services.  9. Provisioning Services and the Public Valu		A biodiversity offset should be designed and implemented to achieve measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity; however, a net gain is required in critical habitats.	Internationally Recognized Areas, and Invasive Alien Species during the Local EIA.	Union for the Conservation of Nature (1UCN) Ked List of Threatened Species).  AWC has undertaken a Biodiversity Impact Assessment and Critical Habitat Assessment aligned with EP4 and IFC PS to address the
When the developer is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved.  Furthermore, PS6 requires the developer to consider Critical Habitats where such areas are with high biodiversity value, including:  1. Habitat of significant importance to Critically Endangered and/or Endangered species;  2. Habitat of significant importance to endemic and/or restricted-range species;  3. Habitat of significant concentrations of migratory species and/or congregatory species;  4. Highly threatened and/or unique ecosystems; and/or 5. Areas associated with key evolutionary processes.  Furthermore, PS6 requires for the developer to consider to consider aspects of Ecosystem Services and Invasive Alien Species.  PS6 - Management of Ecosystem Services and Invasive Alien Species.  PS6 - Management of Ecosystem Services and the Public Waters Management and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem Services.  PS - Provisioning Services and the Public Waters Management and services.		The design of a biodiversity offset must adhere to the "like-for-like or better" principle and must be carried out in alignment with best available information and current practices.		identified gaps.
Furthermore, PS6 requires the developer to consider Critical Habitats where such areas are with high biodiversity value, including:  1. Habitat of significant importance to Critically Endangered and/or Endangered species; 2. Habitat supporting globally significant concentrations of migratory species and/or congregatory species; 4. Highly threatened and/or unique ecosystems; and/or 5. Areas associated with key evolutionary processes. Furthermore, PS6 requires for the developer to consider Legally Protected and Internationally Recognized Areas, and Invasive Alien Species. PS6 - Management of Ecosystem Services According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the developer will econduct a systematic review to identify priority ecosystem services.  Furthermore, PS6 requires to consider the impact to benefits e.g.  South Korean E&S regulations require a developer to consider aspects of Ecosystem Services in the following laws/regulations: and impacts identification process, the developer will econduct a systematic review to identify priority ecosystem services.  Provisioning Services: The Fisheries Act and impacts dentification process, the developer to consider the impact to benefits e.g.		When the developer is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved.		
<ol> <li>Habitat of significant importance to Critically Endangered and/or Endangered species;</li> <li>Habitat of significant importance to endemic and/or restricted-range species;</li> <li>Habitat supporting globally significant concentrations of migratory species and/or congregatory species;</li> <li>Highly threatened and/or unique ecosystems; and/or</li> <li>Areas associated with key evolutionary processes.</li> <li>Furthermore, PSG requires for the developer to consider appected and Internationally Recognized Areas, and Invasive Alien Species.</li> <li>PSG - Management of Ecosystem Services</li> <li>PSG - Management of Ecosystem Services, as determined by the risks and impacts identification process, the developer will impact ecosystem services, as determined by the risks and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem services.</li> <li>Provisioning Services: The Fisheries Act and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem services.</li> </ol>		Furthermore, PS6 requires the developer to consider Critical Habitats where such areas are with high biodiversity value, including:		
<ul> <li>2. Habitat of significant importance to endemic and/or restricted-range species;</li> <li>3. Habitat supporting globally significant concentrations of migratory species and/or congregatory species;</li> <li>4. Highly threatened and/or unique ecosystems; and/or</li> <li>5. Areas associated with key evolutionary processes.</li> <li>Furthermore, PS6 requires for the developer to consider and Internationally Recognized Areas, and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services</li> <li>According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impact ecosystem services, the developer will conduct a systematic review to identify priority ecosystem services.</li> <li>Provisioning Services: The Fisheries Act and impacts identification process, the developer will reconduct a systematic review to identify priority ecosystem services.</li> <li>Provisioning Services: The Fisheries Act and impacts identify priority ecosystem services.</li> <li>Provisioning Services: The Fisheries Act and impact to benefits e.g. consider the impact to benefits e.g.</li> </ul>				
<ul> <li>3. Habitat supporting globally significant concentrations of migratory species and/or congregatory species;</li> <li>4. Highly threatened and/or unique ecosystems; and/or</li> <li>5. Areas associated with key evolutionary processes.</li> <li>Furthermore, PS6 requires for the developer to consider aspects of and Internationally Recognized Areas, and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services</li> <li>PS6 - Management of Ecosystem Services</li> <li>According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the developer will and the Public Waters Management and Reclamation Act require a developer to consider the impact to benefits e.g.</li> </ul>				
<ul> <li>4. Highly threatened and/or unique ecosystems; and/or</li> <li>5. Areas associated with key evolutionary processes.</li> <li>Furthermore, PS6 requires for the developer to consider and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services and Invasive Alien Species.</li> <li>Provisioning Services: The Fisheries Act and the Public Waters Management and Reclamation Act require a developer to consider a systematic review to identify priority ecosystem services.</li> <li>Provisioning Services: The Fisheries Act and the Public Waters Management and Reclamation Act require a developer to consider the impact services.</li> </ul>				
<ul> <li>5. Areas associated with key evolutionary processes.</li> <li>Furthermore, PS6 requires for the developer to consider and Internationally Recognized Areas, and Invasive Alien Species.</li> <li>PS6 - Management of Ecosystem Services</li> <li>According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem services.</li> <li>South Korean E&amp;S regulations require a developer and developer to consider the impact require a developer to consider the impact to benefits e.g.</li> </ul>		4. Highly threatened and/or unique ecosystems; and/or		
According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem services.  South Korean E&S regulations require a developer to consider aspects of Ecosystem Services and the Public Waters Management and Reclamation Act require a developer to consider the impact to benefits e.g.		5. Areas associated with key evolutionary processes. Furthermore, PS6 requires for the developer to consider Legally Protected and Internationally Recognized Areas, and Invasive Alien Species.		
	23	PS6 - Management of Ecosystem Services According to PS6, where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the developer will conduct a systematic review to identify priority ecosystem services.	South Korean E&S regulations require a developer to consider aspects of Ecosystem Services via the following laws/regulations:  Provisioning Services: The Fisheries Act and the Public Waters Management and Reclamation Act require a developer to consider the impact to benefits e.g.	The South Korean E&S Regulation is aligned with PS6 - Management of Ecosystem Services.

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	Priority ecosystem services are two-fold:  1. Those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities; and/or  2. Those services on which the project is directly dependent for its operations (e.g., water).	fisheries would receive from marine resources such as fishes etc.;  Cultural Service: The Landscape Act and the Natural Parks Act etc. provides provisions with regards to e.g. recreation and aesthetic enjoyment;  Regulating Services: Series of E&S protection laws/regulations such as e.g. the Forest Protection Act provides provisions with regards to regulating services; and  Supporting Services: Series of E&S protection laws/regulations such as e.g. the Creation and Management of Forest Resources Act provisions with regards to regulating services.	
24	PS6 - Supply Chain Where the developer is purchasing primary production that is known to be produced in regions where there is a risk of significant conversion of natural and/or critical habitats, systems and verification practices will be adopted as part of the developer's ESMS to evaluate its primary suppliers.	No particular laws/regulation stipulates the requirements with regards to supply chain in the context of PS6.	The South Korean E&S Regulation is not aligned with PS6 - Supply Chain. AWC has developed project specific SCMP aligned EP4 and IFC PS.
25	PS8 - Protection of Cultural Heritage in Project Design and Execution According to PS8, in addition to complying with applicable law on the protection of cultural heritage, including national law implementing the host country's obligations under the Convention Concerning the Protection of the World Cultural and Natural Heritage, the developer will identify and protect cultural heritage by ensuring that internationally recognized practices for the protection,	A cultural heritage survey is required under the application for Public Water Occupancy Permit.  The Cultural Heritage Protection Act requires the inspection of potential buried cultural heritage within 12 nautical miles from the coast along the proposed route of the offshore power export cable.  The Cultural Heritage Protection Act, and the Protection and Inspection of Buried	The South Korean E&S Regulation is aligned with PS8 - Protection of Cultural Heritage in Project Design and Execution.

	EP4/IFC PS Requirements	South Korean Exis Regulation Requirement(s)	Gaps
field-based study, are implemented.	field-based study, and documentation of cultural heritage are implemented.	Cultural Heritage Act provide requirements with regards to:	
Additionally, followings:	Additionally, PS8 requires the developer to consider the followings:	<ul><li>Chance Find Procedures;</li><li>Consultation;</li></ul>	
Chance ESMS, th managing procedur	<b>Chance Find Procedures</b> : As part of the developer's ESMS, the developer will establish provisions for managing chance finds through a chance find procedure, which will be applied in the event that cultural heritage is subsequently discovered;	<ul> <li>Community Access;</li> <li>Removal of Replicable/Non-Replicable Cultural Heritage; and</li> <li>Critical Cultural Heritage.</li> </ul>	
Consult heritage Commur used wit	Consultation: Where a project may affect cultural heritage, the client will consult with Affected Communities within the host country who use, or have used within living memory, the cultural heritage for long-standing cultural purposes. The developer will		
consult continual the deve	consult with the Affected Communities to identify cultural heritage of importance, and to incorporate into the developer's decision-making process the views of the Affected Communities of the Affect		
Consulta local reg protectic	the Allected Collingings on such cultural heritage. Consultation will also involve the relevant national or local regulatory agencies that are entrusted with the protection of cultural heritage;		
Commu site cont previous by, or the within live.	<b>Community Access</b> : Where the developer's project site contains cultural heritage or prevents access to previously accessible cultural heritage sites being used by, or that have been used by, Affected Communities within living memory for long-standing cultural		
purposes the cultur route, su	purposes, the developer will allow continued access to the cultural site or will provide an alternative access roude, subject to overriding health, safety, and security considerations;		
Remova the deve heritage develope avoidanc	Removal of Replicable Cultural Heritage: Where the developer has encountered tangible cultural heritage that is replicable, and not critical, the developer will apply mitigation measures that favour avoidance. Where avoidance is not feasible, the developer will apply a mitigation hierarchy;		
Remova	Removal of Non-Replicable Cultural Heritage: The developer will not remove any nonreplicable cultural		

No.	EP4/IFC PS Requirements	South Korean E&S Regulation Requirement(s)	Gaps
	heritage, unless all of the conditions listed in PS8 are met; and  • Critical Cultural Heritage: The developer should not remove, significantly alter, or damage critical cultural heritage. In exceptional circumstances when impacts on critical cultural heritage are unavoidable, the client will use a process of Informed Consultation and Participation (ICP) of the Affected Communities as described in PS1 and which uses a good faith negotiation process that results in a documented outcome. The developer will retain external experts to assist in the assessment and protection of critical cultural heritage.		

# APPENDIX C STREET-VIEW ASSESSMENT





Fig. 1 Access Road for Onshore Substation Construction



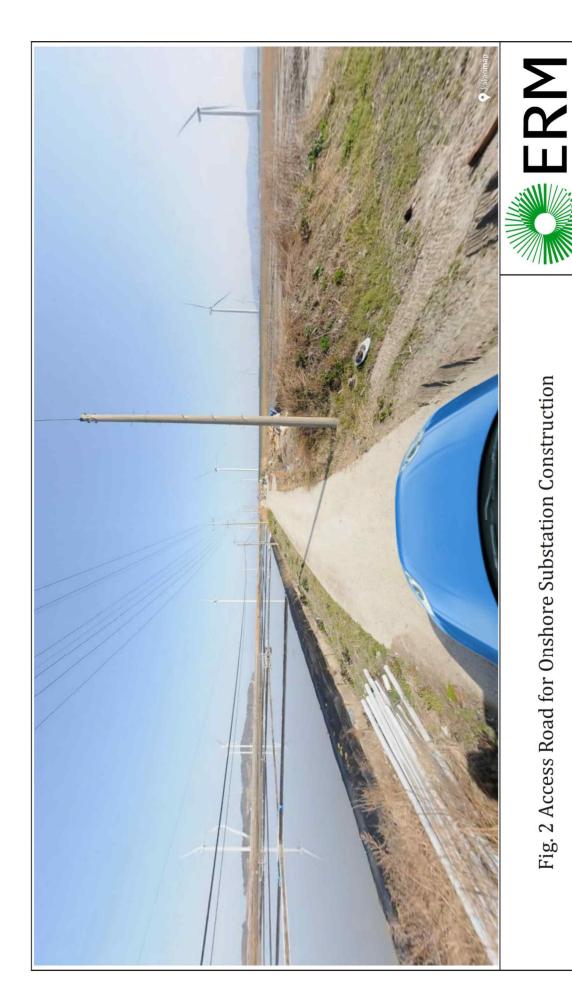


Fig. 2 Access Road for Onshore Substation Construction



Fig. 3 Access Road for Onshore Substation Construction





Fig. 4 Onshore Substation

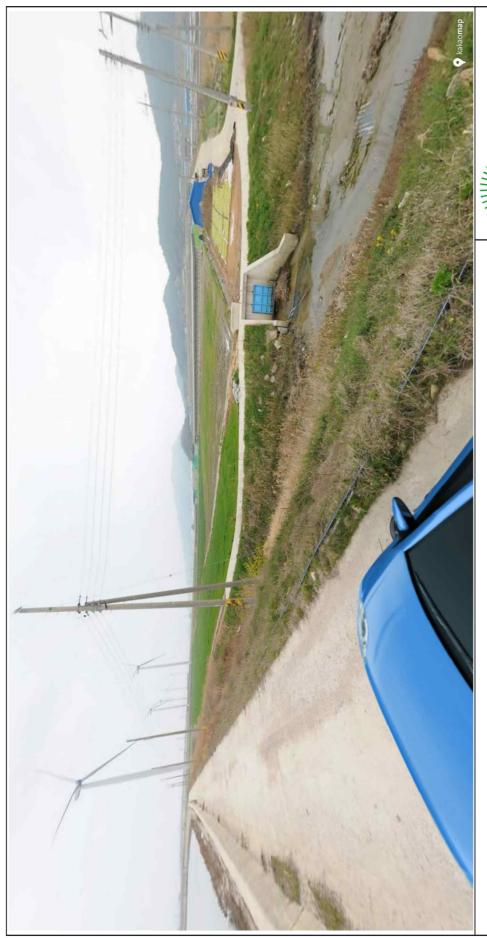


Fig. 5 Onshore Substation



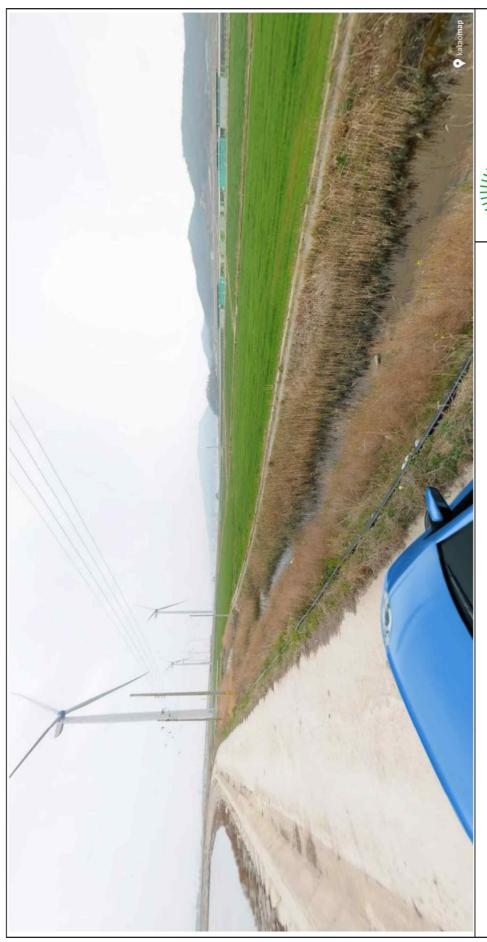


Fig. 6 Onshore Substation





Fig. 7 Onshore Substation and Along the Onshore Cable Route





Fig. 8 Along the Onshore Cable Route



Fig. 9 Along the Onshore Cable Route

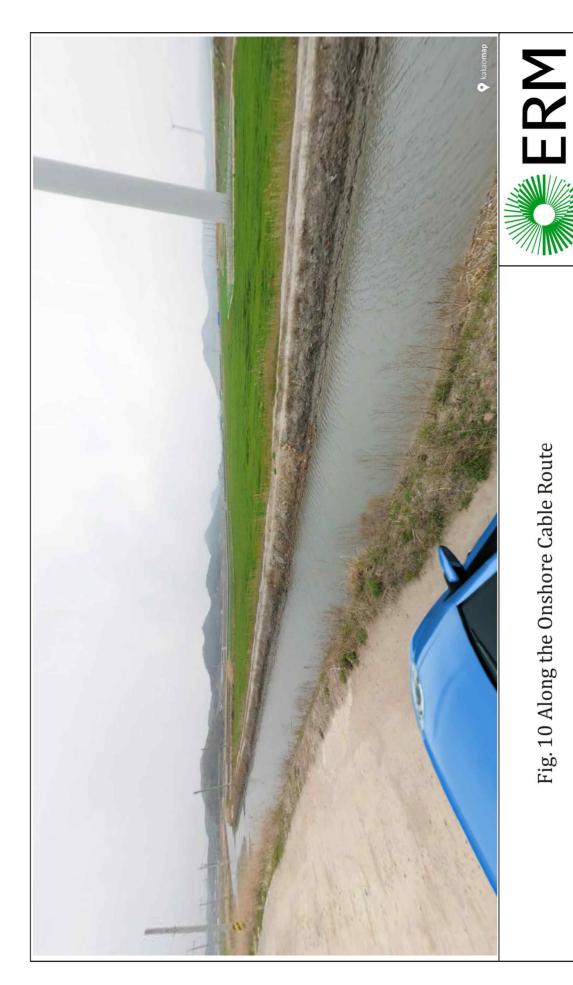


Fig. 10 Along the Onshore Cable Route



Fig. 11 Along the Onshore Cable Route

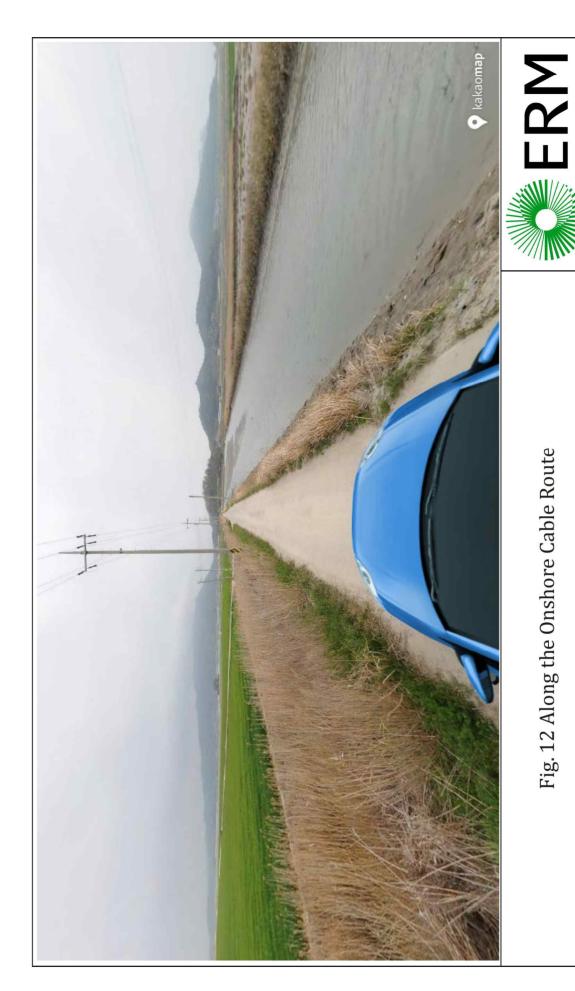


Fig. 12 Along the Onshore Cable Route

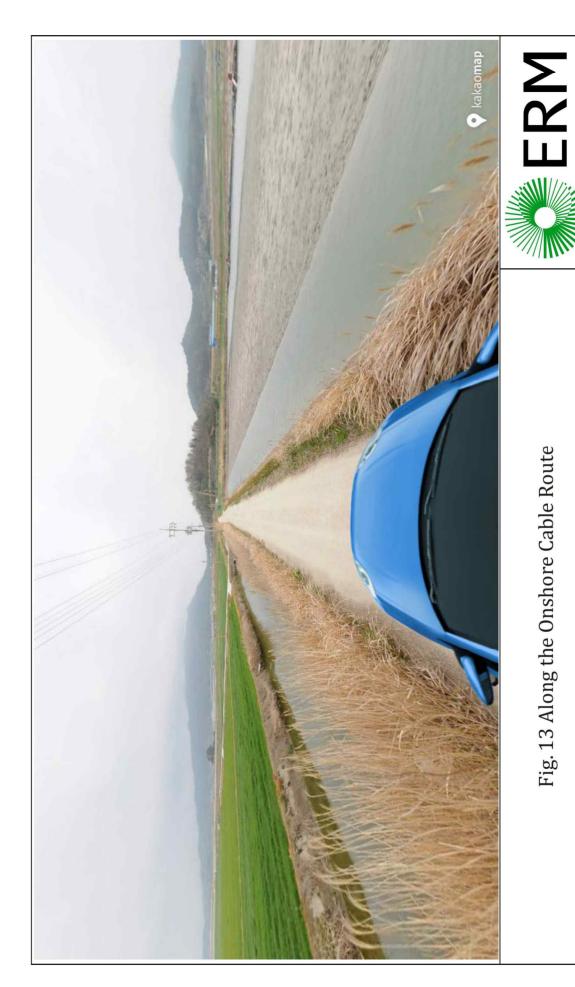


Fig. 13 Along the Onshore Cable Route

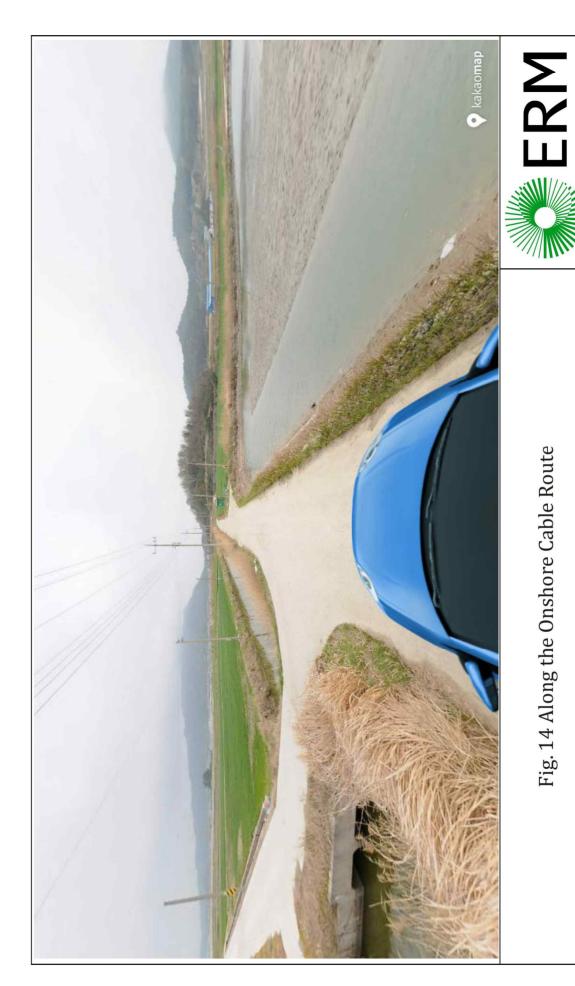


Fig. 14 Along the Onshore Cable Route

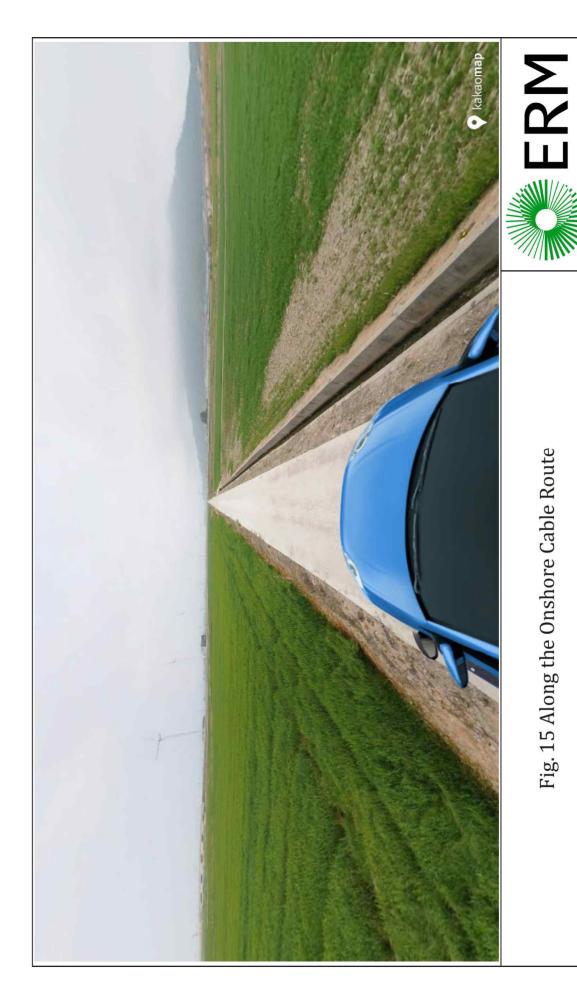


Fig. 15 Along the Onshore Cable Route

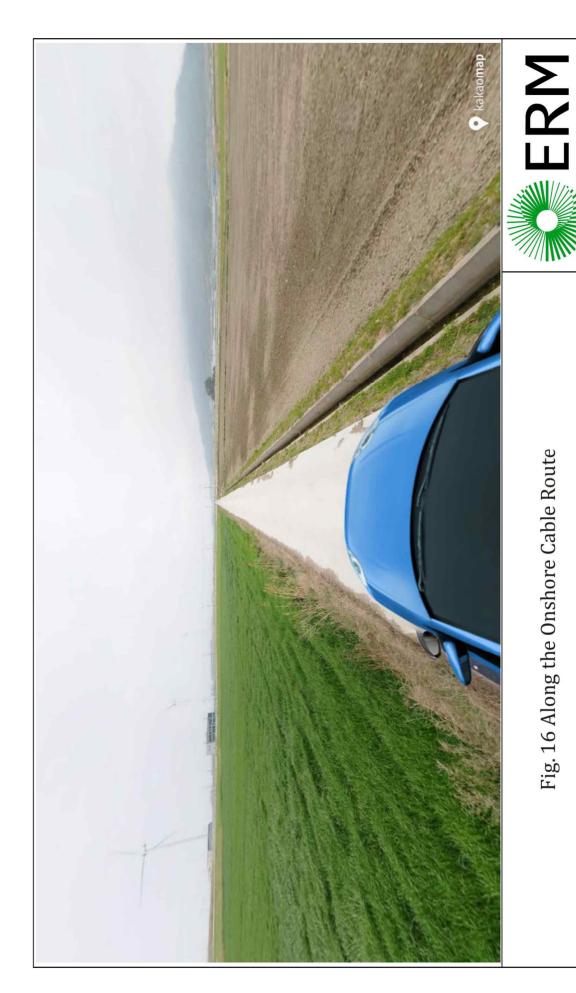


Fig. 16 Along the Onshore Cable Route

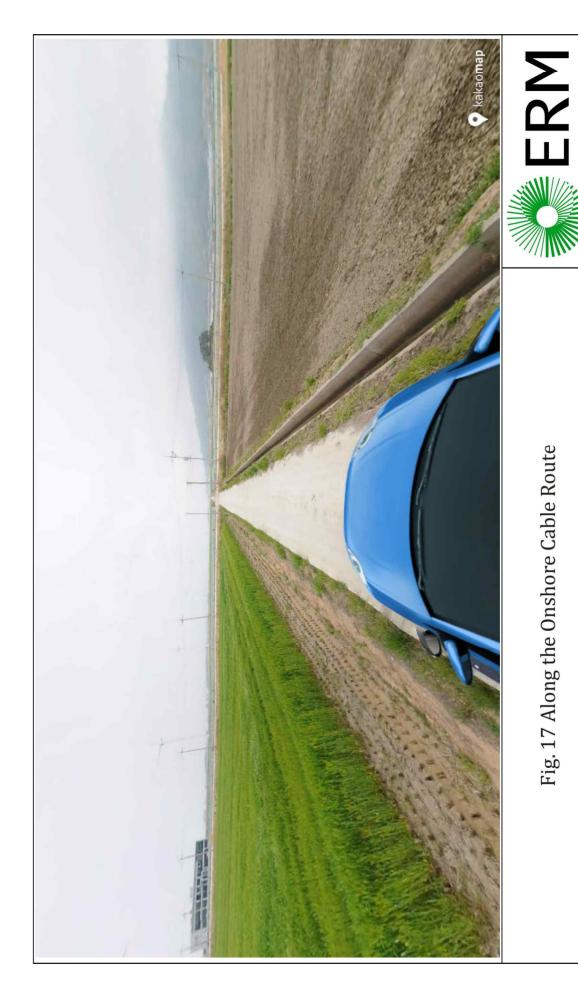


Fig. 17 Along the Onshore Cable Route

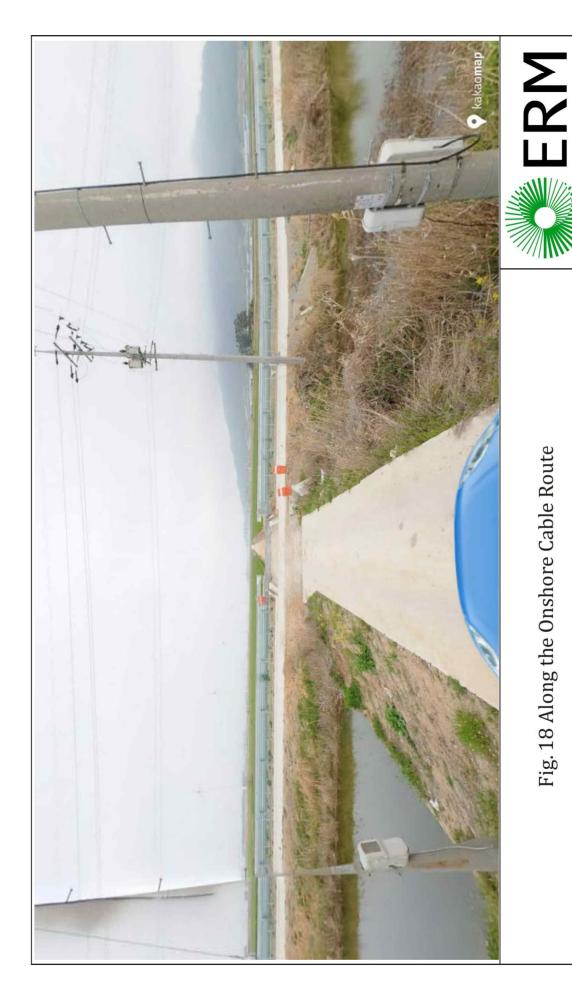


Fig. 18 Along the Onshore Cable Route

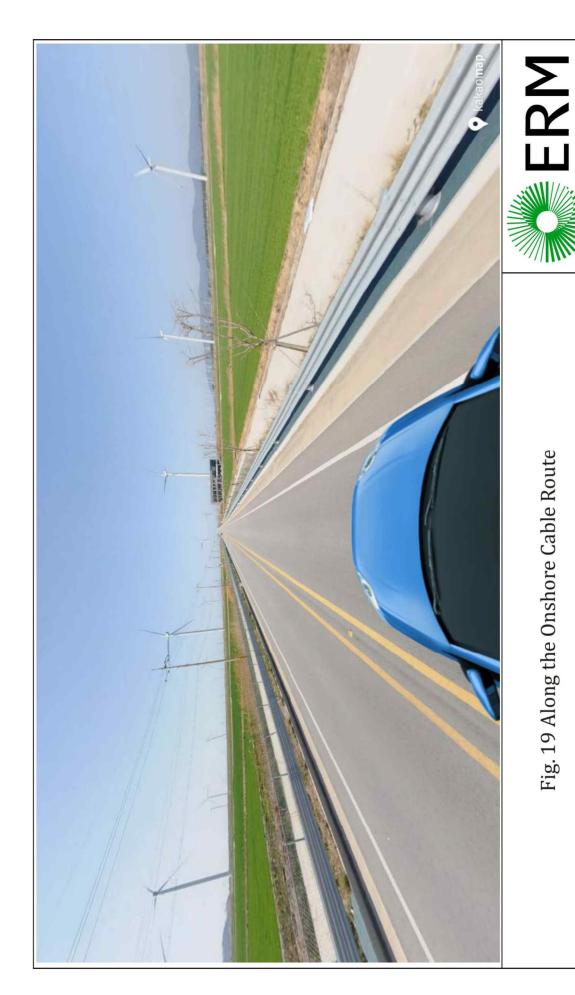


Fig. 19 Along the Onshore Cable Route

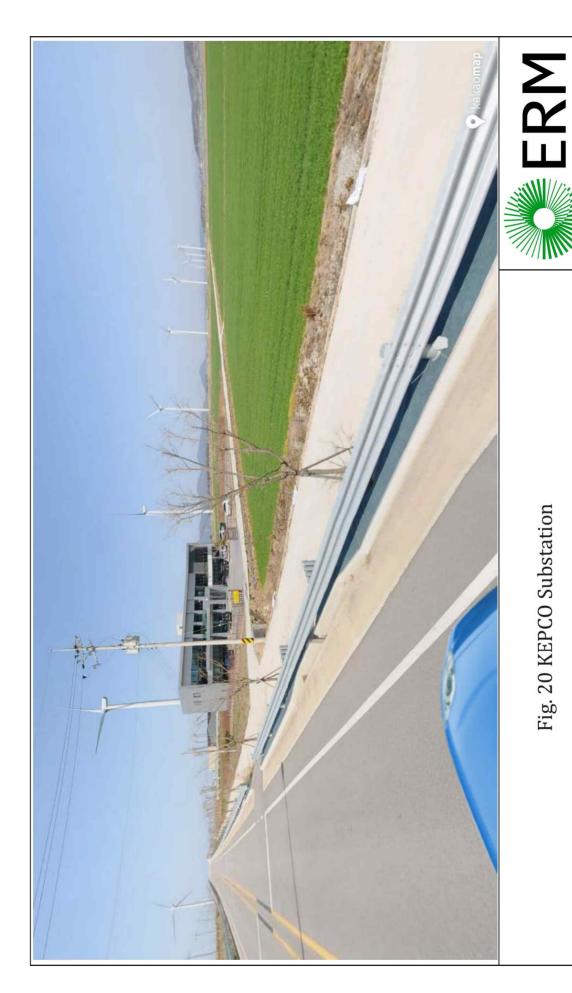


Fig. 20 KEPCO Substation