

2.1 INTRODUCTION

The ESIA was conducted with a view to compliance with the Ivorian laws and regulations, IFC Performance Standards (see Section 2.3) and the integrated safeguards system of the African Development Bank (see section 2.4). The following sub-sections describe the institutional framework, the current legal and regulatory applicable to the project or that may affect the project during the planning stages of construction and operation.

2.2 IVORIAN INSTITUTIONAL CONTEXT

2.2.1 Ivorian institutional context

Department of Safety, Environment and Sustainable Development

Environmental policies are implemented by the Department of Safety, Environment and Sustainable Development, in charge of the definition of national environmental policies and regulations and environmental management requirements. In addition, the Department's role involves the implementation of the Environmental Code and legislation on nature and environmental protection.

National Environment Agency

The National Environment Agency (ANDE) is a national public establishment created in 1997. As provided in Decree No. 97-393 of 9 July 1997, the mission of ANDE is the implementation of the procedure for study of impact and the assessment of the environmental impact of macro-economic policies.

The Ivorian Antipollution Center (CIAPOL)

CIAPOL is a public institution created in 1991. As provided in Decree No. 91-662, CIAPOL responsible for: the assessment of pollution and nuisances, the organization of sampling campaigns / systematic analysis of water natural, waste and residues, the collection and dissemination of environmental data, monitoring environmental conditions of the marine and lagoon environment and the implementation of the emergency response plan against accidental pollution at sea, lagoon or in coastal areas (Pollumar).

The Service of Classified Installations Inspectorate (SIIC) was integrated CIAPOL as sub-directorate, by Order No. 044 / MINEME / IG March 24

2004 and became the executive subcommittee of the Inspectorate of classified installations. Its main tasks are:

- identify, inspect and control over the entire national territory, all the facilities inconvenient, unhealthy and dangerous;
- ensure the implementation of the regulations on classified installations; and
- ensure proper management of the industrial waste management by establishing a waste disposal in procedure.

The police unit against pollution (UNIPOL) was established by Decree No. 00996 of 28 November 2007 amending the Decree No. 556 of 27 February 2002.

Ministry of Health and Public Hygiene

The Ministry of Health and Public Hygiene is responsible for the implementation and monitoring of government policy on health and the fight against AIDS. The health policy of the Ivory Coast is based on the Primary Health Care (PHC). This policy is implemented at the regional level by the regional departments and their decentralized structures.

Ministry of Employment and Social Protection

The Ministry of Employment and Social Protection is responsible for the implementation and monitoring of government policy on employment, the fight against poverty and social themes. The structures under its supervision include:

- National Social Insurance Fund (CNPS), responsible for managing the compulsory Social Security private sector and assimilated, and is also involved in the social-health field; and
- the Labor Inspectorate, which monitors the implementation of legislation and regulation of labor, employment and social security, and advise the parties referee individual disputes and enforces regulations on medicine job.

Ministry of Petroleum, Energy and Renewable Energy Development

The Ministry of Petroleum, Energy and Renewable Energy Development (MPEDER) designs and coordinates the implementation of the national policy on hydrocarbons. It is the first official contact for the oil and energy operators in Ivory Coast. The relevant MPEDER provides following services in this project:

- the Directorate General of Hydrocarbons (DGH) division is responsible for the implementation of the national policy on hydrocarbons. She

also oversees permit applications, distribution and transportation of hydrocarbons in the national territory;

- the National Company of Oil Operations in Ivory Coast (PETROCI) mission is to promote the oil resources and potential national gas, developing the hydrocarbon sector, to identify and develop the oil potential through national campaigns, to conclude partnership agreements with international companies in the sector;
- the Energy division, which consists of the Directorate of Rural Electrification (DER), the New and Renewable Energy Authority (DENR), the Directorate of Monitoring and Energy Regulation (dsrE), the Office of Energy Savings (EEB) and the Administration Service and Materials (SAM).

CI-Energy

CI-Energy means the company State Energy of Côte d'Ivoire, abbreviated CI Energy, established by Decree No. 2011-472 dated 21 December 2011, whose purpose is to monitor management movements of electricity, as well as project management work accruing to the state as the licensing authority.

CIE

The Ivorian Electricity Company (CIE) is a private operator who is responsible for providing electricity in Ivory Coast since 1990. It is linked to the State of Ivory Coast by a concession agreement that was renewed in October 2005 for 15 more years. This agreement grants ICE operation of production facilities, transmission and distribution, marketing, import and export of electricity across the country and in the sub-region.

2.2.2 *Ivorian legislation relevant to the project*

The regulatory framework in the Ivory Coast is in the form of laws, decrees, circulars or ministerial decrees promulgated from time to time. The main relevant texts in the project activities are as follows.

Law No. 2016-886 of 8 November 2016 on setting up of the Republic of Ivory Coast

The Ivorian constitution states that include:

- Article 15: Every citizen has the right to decent working conditions and fair pay.

- Article 27: The right to a healthy environment is recognized all across the country.
- Article 40: The protection of the environment and promoting the quality of life is a duty for the community and for each person or entity.

Law No. 96-766 of 3 October 1996 of the Environmental Code

Law No. 96-766 of 3 October 1996 Environmental Code establishes environmental protection principles at national level as well as the foundations of environmental policy, based on the preservation of natural resources, protection of environment and sustainable economic development.

The Environmental Code is supplemented by five relevant decrees for the project:

- Decree No. 96-894 08 November 1996 laying down rules and procedures for studies related to the environmental and social impact of development projects;
- Decree No. 97-678 December 03 1997 on protection of the marine environment against pollution and lagoon;
- Decree No. 98-19 of 14 January 1998 establishing and organizing the National Environment Fund (FNDE);
- Decree No. 98-42 of 28 January 1998 to organize the struggle of the emergency plan against accidental pollution at sea, lagoon and coastal areas;
- Decree No. 98-43 of 28 January 1998 on classified installations for the protection of the environment; and
- the decree 98-38 of 28 January 1998 on hygiene measures in the workplace, including (Articles 2 and 7):

Act 2014-390 of 20 June 2014 guidance on sustainable development

The Law of 20 June 2014 defines actions of the fundamental objectives of sustainable development stakeholders. It aims to:

- specify the policy tools for sustainable development;
- integrate the principles of sustainable development in the activities of public and private actors;
- develop policy tools for climate change;

- oversee the economic, social and environmental issues related to biosafety;
- define the commitments to sustainable development actors for sustainable development;
- reconcile the protection and enhancement of the environment, economic development and social progress;
- create conditions for the rational and sustainable use of natural resources for present and future generations; and
- regulate the use of living modified organisms.

To do this, Article 5 establishes a set of general principles, including the following are partially applicable to the project:

- the principle of information and participation;
- the principle of participation and commitment;
- the polluter pays principle;
- the precautionary principle;
- the environmental preservation of principle;
- the precautionary principle;
- the principle of protection of cultural heritage;
- the principle of respect for ecosystem support capacity; and
- the principle of health and quality of life.

Article 38 stipulates that the private sector must comply with the implementation conditions of the social responsibility of organizations established by law and Article 39 establishes the obligation to report periodically on the implementation of its plan sustainable development, periodicity defined by decree.

Environmental impact studies - 96-894 Decree of 8 November 1996

Decree No. 96-894 (1996) defines the rules for the preparation of Environmental Impact Studies and Social Assessment (ESIA), their treatment by ANDE and ministerial project approval process subject to ESIA. The decree includes several annexes which the most important are:

- Annex I: list of projects for which a full ESIA must be submitted to the ANDE;
- Annex II: list of projects requiring environmental simplified declaration; and
- Schedule III: lists of projects requiring a full environmental impact study.

The Environment Code is implemented by the Ministry in charge of Environment and ANDE. ANDE is responsible for issues related to the validation procedure of the ESIA. ANDE also acts as secretariat through the technical committee. The technical committee advises and monitors compliance with the law, especially regarding the procedures applied by the ESIA and report content.

It should be noted that the EIA related regulations have a set of criteria for the types of activities and the amount of substances requiring ESIA. All projects that meet these criteria are considered an Installation Classified for the Protection of the Environment (ICPE) under the Environmental Code. The criteria are set in order and recorded in a register (called nomenclature classified facilities) that defines the types of BPI. Project activities or the quantity of substances used by the proposed project require an ESIA.

Under this plan, the project proponent must follow the procedure required by Order No. 00972. This process is described step by step in Figure 2.1.

2.2.3 *Land Acquisition*

Law No. 98-750 of 23 December 1998 concerning the rural land (as amended by Act No. 2004-412 of 14 August 2004)

This law defines the bases of land policies in rural areas by recognizing existing customary management of rural areas. The law also recognizes the associations of village authorities and rural communities in the management of rural areas and their customary rights. This law is supplemented by two decrees:

- Decree No. 99-594, application of Law No. 98-750 relating to rural land;
- Decree No. 96-884 of 25 October 1996 bleed wearing customary rights land because of general interest; and
- the 71-74 decree of 16 February 1971 on Crown land and procedures.

In addition, access and use of land in rural areas continue to be managed in some cases by customary tenure and non-formal. Thus, the land can not be sold, but in many rural areas, they may be allocated by the local council or traditional authorities. Under these plans, the rights are passed from generation to generation in the founding lineage. The ownership of the founding family mean that the care and management of village lands entrusted to it in the name of the community. These families are considered holders of some form of property rights on the land and,

Therefore, the allocation of land to other community members their responsibility. However, they do not hold absolute rights under the law.

2.2.4 Health and safety of workers

The main texts are:

- Law No. 88-651 of 7 July 1988 on the protection of public health and the environment against the effects of toxic industrial and nuclear waste and harmful substances;
- Law No. 99-477 of 2 August 1999 as amended by Ordinance No. 2012- 03 of 11 January 2012 on the Code of Social Security;
- Decree No. 96-206 of 7 March 1996 on the health committee, safety and working conditions;
- the 96-204 decree of 7 March 1996 on the night work; and
- Decree No. 98-40 of 28 January 1998 concerning the technical and advisory committee for the study of issues of hygiene and safety of workers.

The Ivorian Labor Code is defined by Act No. 2015-532 of 20 July 2015. Other important laws are:

Regarding child labor, Article 23.8 of the Law No. 95-15 states that "children can not be employed in an enterprise, even as apprentices, before the age of 14, unless otherwise enacted by regulation ".

Section 41.1 states that "to protect the life and health of employees, the employer is required to take all necessary measures that are appropriate to the business operation conditions. This includes facilities develop and regulate the labor market in order to preserve the best possible employee accidents and diseases. "

Article 1 of Decree No. 96-206 of 7 March 1996 on the health committee, safety and working conditions states that "in accordance with the provisions of Article 42.1 of the Labor Code, in all schools or enterprises with usually more than fifty employees, the employer must create a safety and health committee working conditions. "

2.2.5 Environmental Protection

Laws relating to the code of forests, hunting and wildlife protection and related decree are described below.

Law No. 96-766 of 3 October 1996 of the Environmental Code, establishing environmental protection principles at national level.

Law No. 98-755 of 23 December 1998 the Water Code.

This law specifies the main rules for the preservation and rehabilitation of water and violations and penalties. Waters defined in the Law on Water Code include inland waters and the waters of the territorial sea. It is stipulated in Article 49 that "any wastewater discharge into the receiving environment must comply with the standards."

Under Article 51, "it is prohibited to discharge into the sea, rivers, lakes, lagoons, ponds, canals, groundwater, on their side and in alluvial aquifers, any waste material, all fermentable residue of plant or animal origin, any solid or liquid substance, toxic or flammable, which may constitute a danger or unsanitary conditions, cause a fire or explosion. "

It is stated in Article 12 that "the samples in the waters of public water and construction of facilities or hydraulic works are subject, as appropriate, prior to authorization or declaration."

Article 48 states that "spills, waste deposits of any kind or of radioactive effluents, which may cause or increase the water resources pollution are prohibited."

Decree No. 97-678 of 3 December 1997 concerns the protection of the marine environment against pollution and lagoon. Article 17 of the decree states that the discharge of objects, waste and toxic products is prohibited in marine and lagoon waters and in coastal areas.

Legislation on environmental audit

The main regulation on environmental audits in Ivory Coast applicable to the project, is Decree No. 2005-03 of January 6, 2005. According to Article 8 of the decree, environmental existing projects audits should be made by evaluating the " compliance, efficiency and effectiveness "of the Environmental Management Plan and Environmental Management System project.

Internal audits should be performed every three years by a consulting company designated by the operator. The audit report is submitted to the approval of ANDE. An external audit may be ordered by the Ministry of the Environment, based on the recommendations of ANDE.

Ordinance No. 2012-487 of 7 June 2012 on the Investment Code.

The main objective of this investment code is to encourage and promote productive investment, and green and socially responsible investment in Ivory Coast. It is also to encourage the creation and development of activities geared especially towards the processing of local raw materials, the creation of sustainable and decent jobs,

production of competitive goods for the domestic market and export, and the promotion of technology, research and innovation. It takes into account environmental protection and improvement of the quality of life.

Waste management

Waste management is the responsibility of the Ministry for the Environment. Among them are:

- Decree No. 97-678 of 3 December 1997 on the protection of the marine environment against pollution and lagoon also addresses measures for waste disposal in marine waters and in coastal areas.
- Order No. 171 / PM / CAB of 18 September 2006 establishes the creation, expenses, composition and functioning of the operational coordination unit responsible for managing the national plan against toxic waste. Order No. 166 / PM / CAB of 14 September 2006 nominates the coordinator of the national plan against toxic waste.
- Decree No 2013-327 of 22 May 2013 prohibiting the production, import, marketing, possession and use of plastic bags in Ivory Coast. This Order is to prohibit the production, import, marketing, possession and use of non-biodegradable plastic bags lightweight polyethylene derivatives or similar plastic with a thickness less than 50 microns.
- The 2012-1047 decree of 24 October 2012 laying down the procedures for applying the principle of 'polluter pays' as defined by Law No. 96-766 of 3 October 1996 on the environment code. It stipulates in Article 3 that the polluter pays principle to the effect of putting the polluter of the expenses relating to the prevention reduction, the fight against pollution, nuisance and all other forms of degradation, as for the rehabilitation of the environment.
- The 2015-22 Decree of 14 January 2015 relating to the procedure and conditions Land Use for industrial use. This decree is to establish the procedures and conditions of occupation of industrial land (Article 1). The provisions of this decree apply to the lands in the domain of the state and located within a space qualified economic zone for industrial use as well as land located outside the domain of the state, from when they are intended for carrying on an industrial or related activity (Article 2). This decree applies to any economic operator, natural or legal person engaged in trade and related activity (Article 3).
- Decree 2013-463 of 19 June 2013 fixing the amount and terms of payment of the fee for occupation of industrial land. Annex 1 of the Decree

specifies the amount payable according to the AO (industrial area or off industrial zone).

- The 2017-125 decree of 22 February 2017 on the air quality.
- Decree 2016-791 with neighborhood noise emission.
- Order No. 01164 / MINEF / CIAPOL / SDIIC November 04 2008 on the Regulation of discharges and emissions of installations classified for the protection of the Environment.
- Order No. 10 SEM / DMG March 4, 1971 regulating the pipes factories.

Petroleum Code

The oil and gas Ivorian is regulated by Law No. 96-669 of 29 August 1996 as amended by Ordinance No. 2012-369 of 18 April 2012 (Petroleum Code) and Decree No. 96-733 concerning the conditions Application of the Petroleum Code of 19 September 1996 (the decree).

According to this code, the oil contracts should address in particular the obligations of environmental, health and safety, site rehabilitation and local jobs.

Act 92-469 of 30 July 1992 on the suppression of fraud in petroleum products and violations of technical safety regulations

This law states:

- Article 2: "import, export, processing, storage, transportation and distribution of petroleum products are subject to prior authorization, under conditions defined by decrees";
- Article 3: "It is an offense under this Act:
 - *handling which tends to change or alter the chemical composition of petroleum products as defined by the technical specifications in force;*
 - *any marketing or delivery of petroleum products for public consumption or specific companies outside the oil facilities, specifically approved for that purpose;*
 - *any violation of technical safety requirements for the handling, storage, transportation of petroleum products;*
 - *any sale or possession for commercial purposes to consumption of petroleum products whose origin is not properly established or have not*

not delivered by the licensing companies or owners of oil installations approved storage;

- any maneuver designed to thwart or obstruct the action of officials empowered to carry out the inspection and detection of crime;
- any sale by barreling exceeding 20 liters in distribution facilities (service stations); except for the benefit of duly authorized loggers, mechanized farms and the operation "; and
- Article 4: "violations of the provisions of Articles 2 and 3, first 5 paragraphs are punishable by a sentence of imprisonment of fifteen days to one year and a fine of 100,000 to 500,000 CFA francs or one of these two penalties. Violations of the provisions of Article 3, paragraphs 6 to 8 are punishable by a fine from 75,000 to 250,000 CFA francs. "

Decree No. 98-43 of 28 January 1998 on installations classified for environmental protection

This decree specifies in Article 1 that "subject to the provisions of this Decree, factories, warehouses, construction sites, quarries, underground storage facilities, shops, workshops and, in general, facilities that may present dangers or disadvantages for environmental protection. "

This decree requires the facilities to authorization or declaration depending on the severity of the hazards or inconveniences that may have their operation. It also defines the arrangements for the inspection and sanction. The Ministry of the environment and in particular the inspectors of classified installations are in charge of the inspection.

The facilities referred to in Article I of this decree are defined in the nomenclature of classified installations defined by the Decree 00462 of 13 May 1998. Table 2.1 shows the sections applicable to the project.

Table 2.1 *Headings of classified installations applicable to the project*

| Substance (code 1) and activities (code 2) section | Nomenclature | Subject to authorization (A) or Declaration (D) |
|--|---|---|
| 01-04 | User or storage of chlorine (01-04 / I) | AT, D if containers stowed <60kg and total storage <500kg |
| 01-25 / III | liquefied gas storage / tablet | A> 120m ³ If D> 12m ³ and <120m ³ |
| 01-39 / IV | User or storage of acetic acid (01-39 / VI) | AT, If D <250 kg |

| Substance (code 1) and activities (code 2) section | Nomenclature | Subject to authorization (A) or Declaration (D) |
|--|---------------------------------------|---|
| 02-98 | Treatment plant wastewater (02-98) | AT |
| 02-107 | Combustion | A if > 10 MW |
| 01-29 / IVa | Deposit DDO (2000m ³) | A > 100m ³ |
| 01-29 / IVb | Deposit Diesel | D > 10m ³ and <100m ³ |
| 01-29 / IVb | Deposit oil | D > 10m ³ and <100m ³ |
| 01-29 / IVa | methane gas | A if > 100m ³ |
| 02-108 | A boiler | A flight if water > 1000 l |
| 02-111 | A mechanical workshop | D > 500m ² and <5000m |
| 01-33 | A covered warehouse (store chemicals) | D < 5 000m ³ |
| 01-43 | A caustic soda tank | D < 100t |
| 01-05 | A hydrochloric acid tank | AT |
| 02-94 | special waste storage area | D < 2500m |

2.2.6 *Process for approval of the ESIA*

Decree No. 96-894 (1996) defines the rules for the development of ESIA, their treatment by ANDE and ministerial project approval process subject to ESIA. The decree includes several annexes which the most important are:

- Annex I: projects for which a full ESIA should be subject to the approval of ANDE (applicable CIPREL 5 project);
- Annex II projects subject to environmental simplified declaration; and
- Annex III projects subject to full environmental impact study.

The main steps, timelines and financial implications of the environmental licensing process are defined by Decree No. 00972 of 14 November 2007 on the application of Decree No. 96-894.

Figure 2.1 shows the main steps of the issuance of the environmental permit process, established by Decree No. 00972. The general deadline is indicative and depends on several factors, namely: the complexity and size of the project, the sensitivity of the environment (receivers) projects and the public inquiry process managed by ANDE as part of the approval process.

Figure 2.1 Key steps in the approval process

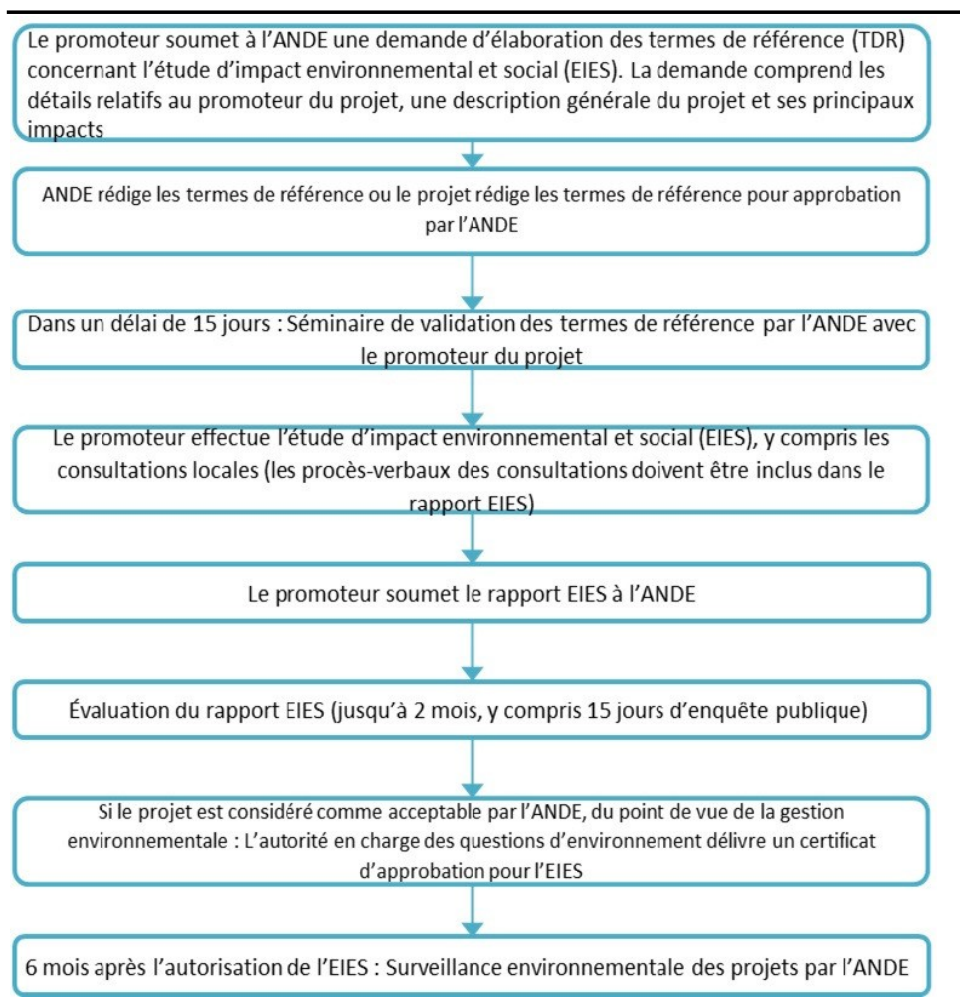
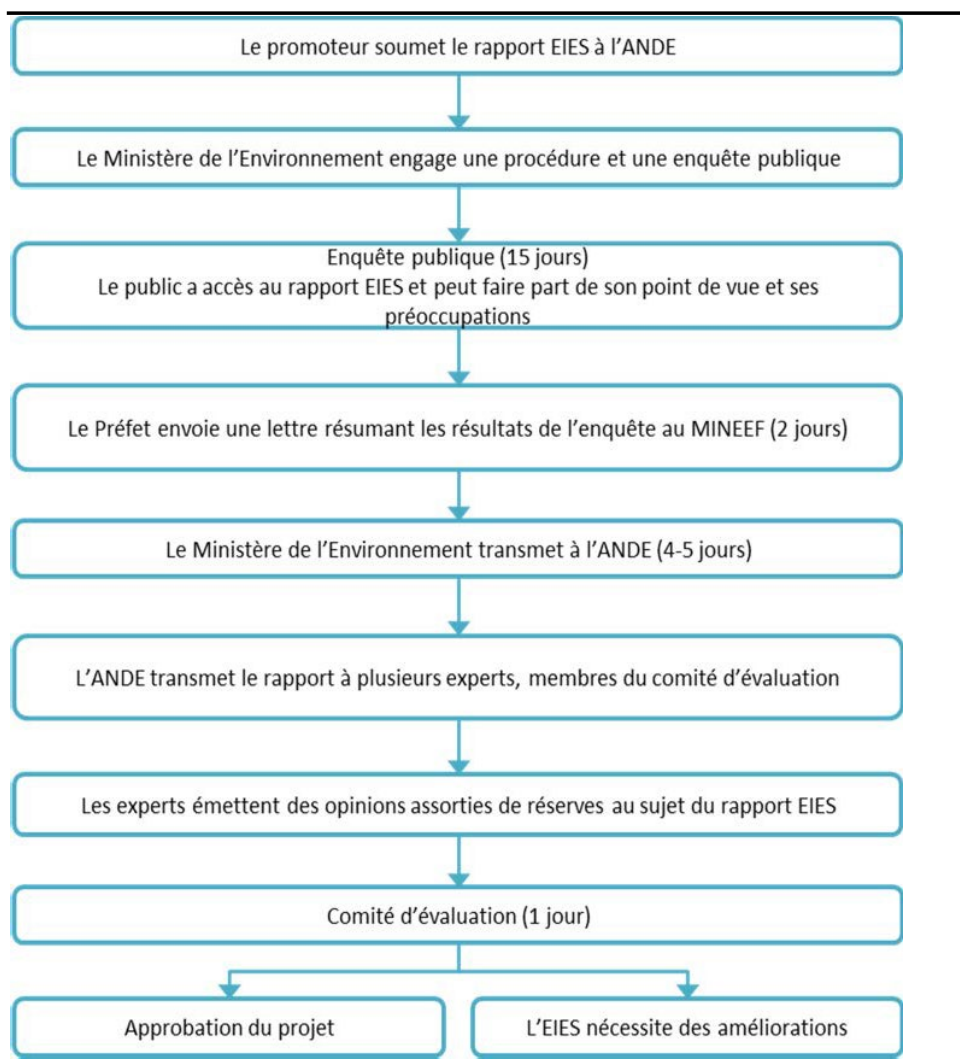


Figure 2.2 details the procedure for approval of the ESIA and the public inquiry once the ESIA was submitted to the ANDE.

Figure 2.2 ESIA approval and public inquiry procedure



2.2.7 International conventions and treaties

In addition to complying with legal requirements of the Ivory Coast, the project should also comply with international treaties applicable to the project, including Côte d'Ivoire is a signatory. International conventions and treaties applicable to the project are presented in Table 2.2.

Table 2.2 International treaties applicable to the project

| Name convention | Date of ratification by Côte Ivory | Objective of the agreement | Aspects related to the project |
|--|------------------------------------|--|---|
| Paris Agreement on Climate Change, 2015 | 10/25/2016 | The Paris Agreement is the first universal climate agreement. It follows negotiations held during the Paris Climate Conference (COP21) of the United Nations Framework Convention on Climate Change. | Limiting greenhouse gas emissions and gradual substitution of fossil fuels by renewable energies to contain global warming well below 2 ° C above preindustrial levels and if possible 1.5 ° C. |
| Convention 182 of the International Labor Organization, Geneva, 1999 | 02/07/2003 | Worst Forms of Child Labor and Immediate Action for the Elimination. | Working conditions and regulations at the site during construction and operation of the project. |
| Convention 138 of the International Labor Organization, Geneva, 1973 | 02/07/2003 | Minimum Age for Admission to Employment. | Working conditions and regulations at the site during construction and operation of the project. |
| United Nations Framework Convention on Climate Change (UNFCCC) 1992 | 14/11/1994 | The ultimate objective of the Convention is to stabilize concentrations of greenhouse gas in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. | Emissions of greenhouse gas during the construction and operation of the project. |
| UN Convention on Biological Diversity (CBD), Rio, June 1992 | 24/11/1994 | The objective of this agreement is to develop national strategies for the conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits arising from the utilization of genetic resources. | Protecting biodiversity in the vicinity of the site during construction and operation phases of the project. |

| Name convention | Date of ratification by Côte Ivory | Objective of the agreement | Aspects related to the project |
|--|------------------------------------|--|---|
| Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 22 March 1989 | 06/09/1994 | International treaty to reduce the movements of hazardous waste between countries and, in particular, to prevent the transfer of hazardous waste from developed countries to less developed countries. | Waste management during construction and operation of the project. |
| Bamako Convention on the Prohibition of Import into Africa and hazardous waste on the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, Jan. 31 1991 | 06/09/1994 | This agreement defines the rules applicable to imports and waste movement. Thereof require authorization by the authorities of each country, and import of hazardous waste (including radioactive waste) is prohibited. | Waste management during construction and operation of the project. |
| Ramsar Convention on Wetlands of International Importance areas, 2 February 1971 | 01/02/1993 | Treaty on the conservation and sustainable use of wetlands, which aims to halt their degradation or disappearance, today and tomorrow, recognizing their fundamental ecological functions and their economic, cultural, scientific and recreational. | The Ebrié lagoon and wetlands associated areas should be considered in the development of the Project. |
| Convention on International Trade in Endangered and threatened species of flora (CITES), also known as the Washington Convention name, March 3 1973 | 02/03/1993 | Treaty drawn up to ensure that international trade in specimens of fauna and flora does not threaten their survival. | Protection of biodiversity and species in the vicinity of the site during the construction phase, operation and decommissioning of the project. |

| Name convention | Date of ratification by Côte Ivory | Objective of the agreement | Aspects related to the project |
|--|------------------------------------|---|---|
| International Union for Conservation of Nature and Natural Resources (IUCN) | | Founded in 1948, the International Union for Conservation of Nature and Natural Resources (IUCN) is an international organization that oversees the protection and sustainable use of natural resources. IUCN is the world authority of the state of conservation of species. IUCN has listed red based on specific criteria for assessing the risk of extinction of thousands of species and subspecies. | Protection of biodiversity and species in the vicinity of the site during the construction phase, operation and decommissioning of the project. |
| UN Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 16 September 1987 | 30/11/1992 | Protection of the ozone layer by phasing out the production of numerous substances believed to be responsible for the depletion of the ozone layer. | Air emissions (cooling system) for the construction and operation of the project. |
| United Nations Vienna Convention 1985 | 30/11/1992 | Protection of the ozone layer. | Air emissions (cooling system) for the construction and operation of the project. |
| Convention on cooperation for the protection and enhancement of the marine environment and coastal areas of the West Africa region and Central Abidjan, March 23, 1981 | 15.01.1982 | Developing scientific and technological cooperation (including the exchange of information and expertise) for the identification and management of environmental issues. | Technical collaboration on environmental issues to develop and communicate, Ivory Coast is a signatory of the Convention. |

2.3 *SPECIFIC ENVIRONMENTAL REGULATIONS AND REQUIREMENTS OF INTERNATIONAL DONORS IN ENVIRONMENTAL AND SOCIAL ASSESSMENT APPLICABLE TO THE PROJECT*

2.3.1 *Applicability of the Ivorian regulations*

The Project facilities are considered classified installations, subject to Ministerial Order No 01164 04 November 2008 regulation of discharges and emissions of installations classified for environmental protection. This decree sets national standards especially for noise, air emissions and liquid discharges.

The project area is currently devoid of urban planning, it is found mainly villagers coconut plantation crops, a 600m poultry farm and around a camp "camp Bete) where resides a household of 4 people 300 m from the site of the Central. It is bordered by the Ebrié lagoon to the north, the village of Avagou and industrial planting the Ivorian Company Grated Coconut (SICOR) to the south, by the village of Ndjem west and east by the department Jacqueline.

Thus, according to the definition given by Ministerial Order No. 01164 November 04, 2008, the ESIA considers the project area falls under the category of "Residential or rural areas with low traffic ground traffic, river or air".

2.3.2 *Applicability of the directives of the World Bank and IFC*

Erano, in the CIPREL 5 project, plans to seek funding from the International Financial Institutions (IFIs). Many IFIs require that the project complies with international standards of management and environmental and social performance.

The most widely used international standards by IFIs are the environmental and social performance of IFC standards. IFC is a subsidiary of the World Bank Group dedicated to supporting the growth of the private sector in developing countries. The sustainable development framework IFC updated on 1 January 2012 is widely regarded as one of the environmental and social management standards most comprehensive.

The IFC Performance Standards are a central element of this framework with eight thematic standards establishing principles for the integrate environmental considerations projects, health and safety. They were designed to help project developers to avoid, mitigate and manage the risks and impacts to develop their activities in a sustainable manner. The IFC standards are outlined in Table 2.3

Table 2.3 Environmental and Social Performance Standards of the IFC (2012)

| standard performance | title | Scope |
|----------------------|---|--|
| 1 | assessment and social and environmental management systems | Defines the requirements to ensure proper management of the environment and health, the implementation of policies and accountability relating thereto, including through an environmental impact study and social standards which performance 1 IFC defines requirements. |
| 2 | Labor and working conditions | Requirements to ensure fair labor-management relations and safe and healthy working conditions. |
| 3 | Prevention and reduction of pollution | Defines the requirements to ensure the prevention and reduction of pollution at an appropriate level. |
| 4 | Community Health and Safety | Defines the requirements to ensure that the adverse effects on the host community are controlled and managed. |
| 5 | Acquisition of land and forced displacement | Defines the requirements to reduce the adverse social and economic impacts of forced displacement, land acquisition or restrictions on land use. |
| 6 | Biodiversity conservation and sustainable management of natural resources | Defines the requirements to ensure that the project's impacts on nature, ecosystems, habitats and biodiversity are managed appropriately. |
| 7 | Indigenous | Defines the requirements for the protection of indigenous. Deemed not applicable to the project to the extent that it should not be any indigenous community, as defined by the performance standard 7 of the IFC in the project area. |
| 8 | Cultural Heritage | Defines the requirements to protect the cultural heritage of the adverse effects of the project activities to support its preservation and promote the equitable sharing of benefits arising from the use of cultural heritage. |

In addition, on the basis of information available for this study, it is considered that the Environmental, Health and Safety (EHS) of the following IFC are applicable in terms of management of current and projected impacts of the project:

- performance standards in environmental and social sustainability (IFC, January 2012);

- EHS guidelines environmental, health and general safety (Group of the World Bank, April 2007); and
- EHS guidelines for thermal power stations (19 December 2008).

2.3.3 Stakeholder participation

Table 2.4 below shows the main elements of the guide stakeholder participation "Guide to good governance practices of companies in the emerging markets" (IFC, May 2007).

Table 2.4 Guide participation of the parties stakeholder

| IFC applicable Directive |
|--|
| First part |
| 1. Key concepts and principles of stakeholder participation. |
| 2. Identification and analysis of stakeholders: <ul style="list-style-type: none"> • stakeholders directly and indirectly affected; • identification of "interest" determined by stakeholders; • strategy and prioritization; • existing information and consultation; • socioeconomic information sheets focusing on vulnerable groups; • verification of stakeholder representatives; • engagement with stakeholders within their communities; • Government as the main stakeholder; • NGOs and community organizations; and • employee recognition as an effective communication channel. |
| 3. Disclosure of information: <ul style="list-style-type: none"> • transparency; • principles of good practice; • risks and benefits; and • sensitive and controversial issues. |
| 4. Consultation with stakeholders: <ul style="list-style-type: none"> • iterative consultation; • informed participation; • consultation with indigenous; and • considerations of gender. |
| 5. Negotiation and partnerships: <ul style="list-style-type: none"> • time limit ; • negotiating in good faith; • trading style; and • strategic partnerships. |
| 6. Management of complaints: <ul style="list-style-type: none"> • process ; • adaptation to project requirements; • communication; |

IFC applicable Directive

- third parties;
- accessibility;
- transparency and response;
- archiving and reporting; and
- obstructing remedies.

7. Stakeholder participation in project monitoring:

- promoting participation and monitoring; and
- advantages.

8. Reporting to stakeholders:

- publishing reports;
- international standards;
- report on sustainable development; and
- advantages.

9. Management Features:

- coordination and allocation of responsibilities;
- workforce;
- hierarchical structure (community liaison and executive function);
- Communication from the internal strategy;
- database of stakeholders;
- commitment registers;
- commitment control of third parties;
- risk management of subcontractors; and
- track changes related to the quality of relationships with stakeholders.

Second part

10. Integration of stakeholder participation in the project cycle:

- project cycle;
 - feasibility studies and project planning;
 - construction ;
 - operations; and
 - reduction of activity, dismantling and disposal.
-

2.3.4

Noise

The ambient noise limits generated by industrial facilities are defined in Decree No. 01164 of November 4, 2008. These limits are also mentioned in the general sanitary and safe environmental guidelines IFC (2007).

Board 2.5 Valeurs réglementaires et exigences internationales pour les niveaux de bruit ambiant à l'emplacement du récepteur

| Reference | Ivorian Order No. 01164 for new Installations (2008) | | | World Bank/IFC guidelines (LAeq per hour) | |
|---------------------|--|---|--|--|---------------------------|
| | residential or rural areas with low traffic ground traffic, river or air (if the project CIPREL 5) | rural residential area with waterways spaces, ground transportation | Zone predominantly commercial, industrial activities (assuming conversion of the area of 5 CIPREL site in an industrial zone). | Industrial. | Residential (If CIPREL5). |
| Dining area | | | | | |
| Day | 45 dBA | 60 dBA | 70 dBA | 70 dBA | 55 dBA |
| Period intermediate | 40 dBA | 55 dBA | 65 dBA | - | - |
| Night | 35 dBA | 45 dBA | 60 dBA | 70 dBA | 45 dBA |
| high noise areas | - | - | - | 3 dBA as compared to the noise level in the initial state at sensitive receptors closest off-site. | |

Criteria related to construction noise

No national or international standard does not apply to noise from temporary sources, including construction. However, good practices as described in the document BS 5228 on the noise related to construction in the UK recommended that noise levels (LAeq, 12h front) from construction activities are below 75 dB during the day, level sensitive receptors at the nearest noise. Construction work at night will be limited to silent activities that do not produce significant noise levels at the nearest sensitive receptors.

Sound levels above construction criterion are considered average or above, while the construction sound levels that do not exceed the criterion are considered low or lower. A summary is presented in Table 2.6.

Table 2.6 Magnitude of the effects of noise from construction activities

| Noise level during the day at the front of the property, LAeq, 12 dB |
|--|
| Negligible <70 |
| Low 70 -75 |

Noise level during the day at the front of the property, LAeq, 12 dB

Middle > 75-80

High > 80

2.3.5 Air emissions and quality of ambient air

A comparison of the Ivorian guidelines (Decree No. 01164) and the IFC EHS guidance is provided in the following tables.

Table 2.7 Regulatory limits and international requirements for air emissions

| determinant | Maximum releases Concentration (mg / m ³) | |
|-------------------|--|---|
| | Ivory Coast Order No. 01164 to new facilities (2008) * | IFC EHS Guidelines for Thermal Power ** |
| Total particulate | 50 | N / A |
| NO2 | 50 | 200 (engine spark ignition) 400 (hybrid) a (compression-ignition engine ***) |

* Emissions Standards applicable for thermal power plants to natural gas, non-degraded airshed.

** For power plants of over 50 MW gas. Quote of the Directive IFC EHS for the thermal power plant (page 21, Table 6. (B) on emission guidelines for combustion turbines): "The guidelines apply to new installations. The environmental study can justify the limits more or less stringent based on the ambient environment and technical and economic considerations, provided that quality standards of the applicable ambient air are respected and that the additional impacts are kept to a minimum. "

*** The compression ignition engines may require different emission values to be evaluated case by case as part of the EA.

Table 2.8 IFC Guidelines on ambient air quality

| pollutant | Average duration | Limit / Directive (in mg / m ³) |
|--------------------------|------------------|---|
| sulfur dioxide (SO2) | 24 hours | 125 (provisional-1 target) * 50 (provisional-2 target) * 20 (directive) |
| | 10 minutes | 500 (directive) |
| nitrogen dioxide (NO2) | 1 year | 40 (directive) |
| | 24 hours | 200 (directive) |
| Suspended particles PM10 | 1 year | 70 (provisional-1 lens) 50 (provisional-2 target) * 30 (provisional target-3) * 20 (directive) |

| pollutant | Average duration | Limit / Directive (in mg / m³) |
|----------------------------------|----------------------------|---|
| | 24 hours | 150 (provisional-1 lens) 100 (provisional target-2) * 75 (provisional target-3) * 50 (directive) |
| Particulate matter PM 2.5 | 1 year | 35 (provisional-1 lens) 25 (provisional target-2) * 15 (provisional target-3) * 10 (directive) |
| | 24 hours | 75 (provisional-1 lens) 50 (provisional-2 target) * 37.5 (provisional target-3) * 25 (directive) |
| Ozone | 8 hours per day maximum | 160 (provisional-1 target) 100 (directive) |

* Interim targets are provided in recognition of the need for a phased approach to achieve the recommended guidelines. The project undertakes to comply with the IFC guidelines.

2.3.6

liquid effluents

A comparison of the Ivorian regulations (Order No. 01164) with the IFC guidelines is made in Table 2.9.

Table 2.9 *Local regulatory limits and IFC guidelines for liquid effluents*

| determinant | Maximum concentration in effluent (mg / L) | |
|-------------------------|---|---|
| | Ivory Coast Order No. 01164 to new facilities (2008) * | Guidelines of the World Bank / de IFC |
| pH | 5.5 to 8.5 or from 5.5 to 9.5 in case of chemical treatment | 6-9 |
| Temperature | <40 ° C | <ul style="list-style-type: none"> • Site-specific requirements to be established by the competent environmental authorities; • The elevated temperatures due to the once-through cooling water outlet (for example 1 ° C above, 2 ° C above the temperature of the surrounding water) must be minimized by adjusting the design water intakes and discharges during the project according sensitive aquatic ecosystems around the discharge point; and • The temperature of the wastewater before discharge should not cause a temperature increase of more than 3 ° C above the limit of a scientifically established mixing zone which takes into account in particular the quality of the surrounding water, the receiving water use, potential receptors and assimilative capacity. |
| Total suspended solids | Reduction of 80% or 150 mg / l if the stream > <15 kg / d 100 mg / l if the stream > <15 kg / j | 50 |
| Oil and grease | 30 mg / l if the stream <5 kg / d 10 mg / l if the stream > <5 kg / day | 10 |
| total hydrocarbons | 10 mg / l if the stream > <100 g / d | - |
| Total Residual Chlorine | - | 0.2 |

According to the IFC Performance Standard: "When host country regulations differ from the levels and measures recommended by the EHS Guidelines, clients will comply with the highest standards."

2.4 *INTEGRATED SAFEGUARD SYSTEM OF THE AfDB*

2.4.1 *The integrated safeguard system (SSI)*

The Integrated Safeguards System (SSI) was adopted December 17, 2013 by the ADB as the cornerstone of the bank's strategy towards inclusive growth and sustainable social perspective environmental perspective.

The Bank requires that borrowers / clients comply with the requirements of these backups during the preparation and implementation of the project.

- Operational Safeguard 1: Environmental and Social Assessment - This primordial backup governs the process of determining the environmental and social category of a project as well as consecutive requirements for environmental and social assessment.
- Operational Safeguard 2: Involuntary resettlement, land acquisition, displacement and compensation - This backup consolidates the policy commitments and requirements enacted in the Bank's policy on involuntary resettlement, and incorporates a number of adjustments designed to improve operational efficiency of these requirements.
- Operational Safeguard 3: Biodiversity and ecosystem services - This backup supports the conservation of biological biodiversity and promoting sustainable use of natural resources. It also translates into operational requirements, commitments Policy Bank in integrated water resources management.
- Operational Safeguard 4: Prevention and control of pollution, hazardous materials and efficient use of resources - This backup covers various key impacts of pollution, waste and hazardous materials for which there are international conventions, as well as industry standards and regional, especially for accounting for greenhouse gas emissions that follow other multilateral development banks.
- Operational Safeguard 5: Working conditions, health and safety - This backup establishes the requirements of the Bank, to the attention of its borrowers or clients on working conditions, workers' rights and protection against abuse and exploitation . It also ensures greater harmonization with most multilateral development banks.

2.4.2 *The sectoral directives of the integrated safeguards system*

The ADB also provides sectoral directives (sector keysheets). The objectives of these guidelines are to identify the typical components of projects,

sources of impacts, commonly applied valuation methods and potential management options. The recommendations included in these guidelines will be used for this project:

- Energy Sector / Power: Lines of transmission and interconnection systems; and
- Sector Energy / Electricity: thermal power projects.