AFRICAN DEVELOPMENT BANK GROUP

ABN MULTINATIONAL: INTEGRATED DEVELOPMENT AND CLIMATE CHANGE ADAPTATION IN THE NIGER BASIN PROGRAM (PIDACC/NB)

Summary of the Environmental and Social Management Framework (ESMF)

1- Background and description of PIDACC/NB programme

Water erosion and silting are a serious threat to the flow of the Niger River and its tributaries downstream and to the maintenance of biological and natural ecosystems equilibrium, and, on the other hand, habitats and all socio-economic activities. These phenomena that amplified year by year by the recurrent droughts weaken the conditions of life of the populations and the biodiversity in the Niger Basin. Due to the aforementioned environmental constraints, the living conditions of the people of the Niger Basin are very precarious. They impose adaptation actions aimed at increasing the resilience of populations in order to alleviate poverty, preserve and ensure sustainable management of the basin's natural resources.

2- Objectives of the Strategic Environmental and Social Assessment (SESA)

SESA generally allows for earlier consideration of impacts before final programme definition and allows better control of interactions or cumulative effects. The overall objective of environmental and social studies is to assess the sustainability and optimum nature of the PIDACC/NB's investment options, priorities and objectives, with particular emphasis on the environmental, socio-economic, institutional and legislative Implementation. The SESA should also identify the risks and impacts of climate change and human pressure (agricultural and non-agricultural activities) on PIDACC/NB and propose appropriate adaptation measures. The PIDACC Environment and Social Management Framework (ESMF) is a primary output of the SESA

3- The PIDACC Environment and Social Management Framework (ESMF)

The PIDACC ESMF seeks to (i) enhance positive and sustainable environmental and social outcomes associated with project preparation and implementation; integration of environmental and social aspects associated with the numerous projects into the decision making process; (ii) minimize environmental degradation as a result of either proposed individual projects or their cumulative effects and (iii) minimize impacts on ecosystems.

The objectives of the PIDACC ESMF therefore include the following: (i) to establish clear procedures and methodologies for the environmental and social planning, review and approval of the projects to be prepared under the project;(ii) specify roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to projects, including grievance and redress mechanisms (iii) determine the training, capacity building needed to successfully implement the provisions of the ESMF and (iv) establish the project financing required to implement the ESMF.

4- Policy and legal framework for environmental and social management

The SEA has carried out an inventory of the regulatory and legislative aspects of the nine (9) member countries of the Niger Basin Authority (NBA), which frame the programme and are the subject of this study. To this end, a brief review of the environmental policy of the nine countries was carried out, but also and especially of the relevant legislative, regulatory and normative texts within the framework of the programme. This framework reflects and takes into account the international texts ratified by these countries and which may be relevant to the management of the impacts and risks likely to be generated during the implementation of this programme.

5- Institutional capacities for environmental and social management

The environmental and social management of PIDACC/NB Programme involves the following stakeholders: the NBA Technical Department which coordinates the project; the technical services of the Ministries of Environment, Agriculture, Planning and Food Security, Industry, Hydraulics, Interior, Trade, Infrastructure Energy; Transport, Public Works, Forestry and Wildlife, Land affairs, Social Affairs, Public Health, Economics and Finance, Territorial Administration, Labour and Social Security, Scientific Research, Defense. These stakeholders, whose list is not exhaustive, have competences and abilities on environmental and social issues that will be strengthened with a view to ensuring the effective and sustainable implementation of the SESA.

6- Environmental and social stakes of the project area

- **ENVIRONMENTAL STAKES**

Stake 1: Development of knowledge and management of water resources;

Stake 2: Water pollution control, sanitation and waste management;

Stake 3: Conservation of wetlands and protection of biodiversity;

Stake 4: Watershed management.

- **SOCIO-ECONOMIC STAKES IN THE PROGRAMME AREA**

Stake 1: Improvement of the socio-economic conditions of the basin populations;

Stake 2: Definition of the combination(s) of major developments and the management guidelines;

Stake 3: Identification and implementation of measures to accompany infrastructure development;

Stake 4: Identification and implementation of countervailing measures;

Stake 5: Development of integrated cooperation mechanisms;

Stake 6: Creation of a framework for consultation and stakeholder participation;

Stake 7: Stakeholder training and capacity building;

Stake 8: Strengthening the existing legal and institutional framework, which is conducive to dialogue and concerted action for cooperative action between NBA member countries**.**

7- Public consultations

The various meetings held during public consultations revealed that the programme enjoys very high social acceptability. Indeed, the remark is that the different categories of stakeholders are unanimous in recognizing the program me as a vector of sustainable socio-economic development. It is perceived as a salutary programme, a response to a real social demand. This is due to the fact that it contributes to the management and sustainable development of the basin's water resources. Nevertheless, concerns were raised by the stakeholders encountered and recommendations were formulated to be taken into account in the implementation of PIDACC / NB programme.

8- POTENTIAL POSITIVE IMPACTS

a) Public health and safety

Locally, the work will generate dust, smoke, noise that can be sources of respiratory illnesses and various nuisances (cough, respiratory disorders, etc.) especially among site workers and local residents. These emissions are often the cause of respiratory and ocular diseases. The presence of workers in the work areas can also contribute to the proliferation of sexually transmitted diseases.

There are also risks of traffic accidents due to speeding especially at crossroads of agglomerations and accidents at work, risks of fire in bases linked to the presence of flammable products. Sites are often outside residential areas, the impact on health and safety will be less, however it deserves consideration and the application of safety measures will minimize them.

b) Employment and local economy

The work to be carried out is an employment opportunity for the local populations. This type of employment is temporary, but could have a definite economic impact on the standard of living of households, on the local economy and also avoid social conflicts.

The presence of the site and staff could encourage the development of small shops, home rentals, domestic jobs and catering in the area.

c) Cultural, historical and archeological heritage

During excavations, it is possible to discover archaeological remains and/or cultural physical properties. In case of discovery, the contractor will immediately notify the services of the Ministry of Culture, and the work will be oriented according to their instructions.

It should be recalled that the work will not entail significant loss of assets on the right-of-way or the movement of persons.

9- POTENTIAL NEGATIVE IMPACTS

9.1 Negative impacts of boreholes and wells

Concerning the construction of wells and boreholes, the scope of the phenomenon will be relatively small because their installation generally requires only an area between 25 m2 (minimum) and 100 m2 (maximum) per work. It is at the level of the pressure on the water resources, the space around these water points that the effect will be felt most. Drilling, especially pastoral, in areas where the system of breeding practiced is generally of the itinerant extensive type can have negative effects on the environments and generate social conflicts. The programme has also provided for transhumance corridors, access roads and rangelands that could mitigate negative impacts on forest formations and crop areas. Concentrations of animals may also pose risks to animal health or even to public health. The programme should therefore ensure adequate spatial distribution of the boreholes dug in order to mitigate the effects of such equipment on their environment.

9.2 Negative impacts of the construction of socio-economic infrastructure

Rehabilitation or construction of socio-economic infrastructure does not generally have a significant negative impact on the environment. The risk of destruction of ecosystems is greatly reduced if site selection is appropriate. The borrowing areas will be mildly affected given the limited quantities required for the work. On the other hand, the exploitation phase can be a source of waste production. Infrastructure management can also generate conflicts if their status and management methods are not clearly defined. The following tables summarize the most significant negative impacts that could be generated by some programme activities.

Summary of negative impacts of the construction of ponds, retention ponds or small earth dams, anti-salt dykes.

Phase	**Potential negative impacts**	**Overall assessment of the impact on the environment**
Work	**Physical and biophysical environments** • Release of dust, gas, waste, etc; • Deforestation and risk of destruction of sensitive habitat; • Compaction of the soil by the passing of machines and vehicles of the site; • Destruction of soil in the borrowed areas and quarries; • Risk of pollution of soils and water by liquid and solid wastes; • Risk of drying of wetlands.	Minor to Medium
	Human environment • Noise and nuisances (dust, gases, waste, etc.); • Risk of accident; • Eventual loss of assets or access; • Possible conflicts relating to the right and the use of the soil (cohabitation between different rights, claims of belonging, etc.); • Risk of crop disruption during construction; • Potential risks of destruction and damage to archaeological sites; • Risks of conflicts related to the non-use of local labour during construction.	Minor to Medium
Exploitation	**Physical and biophysical environments** • Risks of soil and water pollution from agricultural input residues; • Risk of erosion of areas in favour of works; • Risk of change in soil drainage; • Risk of silting and sedimentation; • Increased pressure on resources (water and soil); • Risk of soil depletion through overexploitation and misuse of fertilizers; • Risk of soil erosion and salinity; • Risk of disruption of the hydrological cycle; • Degradation of water quality (pollution of groundwater, watercourses, water bodies); • Increased competition for resource use; • Risk of premature water depletion;	Moderate

Phase	Potential negative impacts	Overall assessment of the impact on the environment
	• Downstream water use problem; • Risk of destruction of fish fauna.	
	Human environment • Risks of poisoning and / or contamination during crop treatments and use of inputs (livestock contamination, population poisoning) ; • Risks of conflicts between users; • Development of water-borne diseases (malaria, diarrheal diseases, etc.); • Risk of land speculation; • Increased competition for resource use; • Risk of expropriation of land developed by women;	Moderate

Summary of negative impacts of the construction of wells and boreholes

Phase	Potential negative impacts	Overall assessment of the impact on the environment
Work	Noise and nuisances	Minor
Exploitation	**Physical and biophysical environments** • Reduction in groundwater; • Risk of soil depletion through overexploitation and misuse of fertilizers; • Potential for saline intrusion of coastal aquifers. **Physical and biophysical environments** • Health risks due to pesticide use (livestock contamination, population poisoning); • Increased competition for resource use; • Higher frequencies of dewatering equipment (pumps, units); • Reduction of the depreciation period of pumping equipment (pumps, units); • Risk of conflicts between users (DWS, pastoralists and farmers).	Minor

9.3 Cumulative impacts of project activities

In addition to the negative environmental and social impacts specific to each type of programme activity, the study also looked at the cumulative impacts that could result from combining its implementation with other existing practices, projects and programs in the targeted areas. Indeed, while most of the activities to be carried out can have negative effects which are not significant in isolation, the combination of several negative effects, even minor ones, can in the long term lead to major negative effects due to the synergistic effect. Combined with the impacts of other ongoing projects and programs in the intervention areas, the negative impacts of PIDACC can become significant.

Even if the risk remains very low, the general improvement of the living conditions of the populations through the activities of the programme could naturally lead to a change in behavior; an increase, diversification of demand and needs, and increased pressure on natural resources. It is at this level

that information and awareness-raising programs and capacity building will have an important role to play.

Establishment of Steering and Management Committees representative of all stakeholders in rural development, the people concerned and civil society; the development and application of land-use, planning and management tools (local or communal development plans, POAS, etc.), could also reduce the magnitude of the cumulative negative effects of the programme. The table below gives some cumulative impacts that could be linked to the implementation of the programme in combination of ongoing projects and programs.

Analysis of cumulative impacts

Stakes	**Scenario 5 to 10 years**
Development with water control	Additional pressure on natural resources; Conflict of access to programme resources; Potential for worsening conflicts over the use of water resources; Risk of worsening conflicts between farmers and livestock breeders; Risk of development of water-borne diseases around water points; Risk of increased use of pesticides; Risk of restricting women and youth access to managed land.
Pastoral areas	Increased livestock and increased pressure on perimeter resources; Pressure on the perimeters and risk of conflicts linked to the advances of the agricultural front; Risk of aggravation of conflicts with other livestock breeders, especially those practicing transhumance; Risk of disease development around water points due to high concentrations of animals.
Foot path	Strengthened poaching and increased exploitation of natural resources; In addition, the footpaths and firewalls will also be possible to strengthen the means of surveillance and fight against poaching and illegal deforestation by the State Services (Water and Forests and Parks).
Economic and social development	General improvement of people's living conditions; Reduction of poverty which could lead to a change in behavior; increased diversification of demand and needs, and increased pressure on resources and basic social services.

The management of these cumulative impacts will need to be adequately addressed in the ESMFP of each country component. This requires, in particular, the carrying out of a cumulative impact

assessment for the intervention areas of each country at the start of the programme, which will propose the measures to be implemented at the scale of the intervention areas and the sub-projects.

9.4 Impacts on climate change

On the basis of data from a study co-produced with CILSS, the study showed that climatic changes, particularly in the Sudano-Sahelian and Guinean-Sahelian areas, have resulted in droughts, floods, rainfall and increased temperatures. The following figure outlines the situation of climate change in the Sahel and the impacts and effects (social, economic, political and environmental) associated with it.

10. MITIGATION MEASURES OF PIDACC/NB PROGRAMME

10.1 Mitigation measures of ponds development and construction of retention basin, small dams and anti-salt dykes

The following table presents the mitigation measures related to the development of ponds and the construction of a retention basin, etc.

Mitigation measures of ponds development and retention basin, small dams and anti-salt dam.

Potential negative impacts	**Mitigation measures**
Work Phase	
Deforestation and destruction of natural habitats	Compensatory reforestation and rehabilitation
Litigation on the site	Concerted choices of site
Construction waste and nuisances	Compliance with clauses inserted in BDs and security measures Application of Good Practices
Non-use of local labour during work	Use of local labor Compliance with clauses inserted in BDs
Dust, noise, pollution from construction waste, hygiene and safety problems related to work Accident risks	Safety measures, protective equipment Compliance with hygiene and safety measures Waste collection and disposal
Operation Phase	

Potential negative impacts	Mitigation measures
Conflicts between breeders and farmers	Dialogue between breeders and farmers Delimitation of rangeland and pasture Awareness of the stakeholders Protection of watering points Consultation between stakeholders and the IWRM programme.
Increase in water-related diseases	Measures to combat waterborne diseases (information and sensitization) Sensitization of populations on malaria prevention measures (treated mosquito nets) Sensitization of the populations on the risks of going to infrastructure for bathing or laundry purposes Treatment of water bodies Consultation with users
Competition in the use of water	Consultation between stakeholders and the IWRM programme
Premature silting of water reservoirs	Encourage beneficiary populations to adopt good cropping practices that can limit soil erosion Application of good agricultural practices (optimizing inputs, respect of technical itineraries, favoring the establishment of agro-environmental infrastructure or agro-ecology - windbreaks, windbreaks, etc. – Development of environmentally friendly farming practices Making erosion control infrastructure (reforestation, stony barriers…) Strengthening the skills of beneficiaries
Risk of women marginalization	Capacity building Sensitization

10.2 Mitigation measures for boreholes

The following table outlines the mitigation measures for drilling.

Specific activities	Potential impacts	Mitigation measures
Work phase	• Noise, pollution from construction waste, health and safety problems (accidents) related to work	Compliance with the clauses inserted in the BDs and safety measures

Specific activities	Potential impacts	Mitigation measures
Operation phase (Commissioning)	• Dropping of the water table • Increased competition for resource use • Destruction and pressure on the areas around the boreholes • Risks of social conflicts with local populations • Animal concentrations and disease risks • Risk of conflicts with livestock farmers	Environmental impact assessment Improvement of knowledge on the potential of the exploited aquifers and assess their capacity Consultation with users Promote the refilling of aquifer by works such as watershed afforestation Reforestation IWRM approach
	Risk of women marginalization	Capacity building Sensitization

Mitigation measures for irrigation schemes

The following table presents mitigation measures for irrigation schemes.

Table 1 Mitigation measures for irrigation schemes

Project activities	Potential negative impacts	Mitigation measures
Irrigated perimeters	**Work phase**	
	Deforestation and destruction of natural habitats Construction waste and nuisances	Compensation measures Concerted choices in the choice of sites Reforestation Compliance with clauses inserted in BDs
	Dust, noise, pollution from construction waste, hygiene and safety problems related to work Accident risks	Safety measures, protective equipment Compliance with hygiene and safety measures Waste collection and disposal Safety measures, individual protective equipment
	Operation Phase	
	Conflicts between breeders and farmers	Dialogue between breeders and farmers Delimitation of rangeland and pasture Awareness of the stakeholders

Project activities	Potential negative impacts	Mitigation measures
		Protection of watering points
	Increase in water-related diseases	Measures to combat waterborne diseases (information and sensitization,)
	Competition in the use of water	Consultation between stakeholders
Environmental and social impacts related to construction work on storage infrastructure and agricultural product processing equipment	• Dust, noise, pollution from construction waste, health and safety problems (accidents) related to the construction of buildings; • Mass influx of temporary workers; • Risks of STDs / HIV / AIDS.	• Wise choice of sites • Awareness and protection of staff • Supply and wearing of individual protective equipment (helmets, boots, clothing, gloves, masks, glasses, etc.) • Ecological waste management and regular collection and evacuation to authorized sites • Sensitization on STDs / HIV / AIDS • Raising awareness about respect for local customs and traditions

10.3 Mitigation measures for production tracks

The following table presents mitigation measures for tracks.

Specific activites phase	Potential negative impacts	Measures to minimize negative impacts
Preparation and site	**Impacts on the biophysical environment** - tree felling on new plots - destruction of wildlife habitats on the new plot - deforestation and soil erosion with the opening and exploitation of quarries - Obstruction of runoff paths - rehabilitation of laterite quarries **Impacts on the human environment and socio-economic activities** - Transfer: property degradation - Air pollution by dust and exhaust from machinery - Pollution of the environment by waste from work sites and living camps - Noise nuisance of site construction materials - Transmission of infectious diseases (STDs - HIV / AIDS, etc.) - Risk of accidents among workers, inhabitants of villages concerned or animals - Agricultural land degradation (new alignment) - Encroachment on crop fields (new alignment)	- Environmental assessment - Compliance with clauses inserted in BDs and security measures - Opening and rational career management in accordance with the regulations - Rehabilitation of temporary quarries - Awareness-raising for site staff - Rational waste management - Sensitization on SDTs / HIV / AIDS - Hygiene and safety measures on the site - Protection of agricultural areas - Offsetting asset losses

Specific activites phase	Potential negative impacts	Measures to minimize negative impacts
Exploitation	- Accidents - Lifting of dust (villages crossroads)	- Installing signs and speed bumps on village crossroads - Planting alignment trees - Sensitizing local populations

10.4 Mitigation measures for socio-economic infrastructure

The following table presents the mitigation measures for socio-economic infrastructure.

Activities	Potential impacts	Minimization measures
Work phase	Conflicts on the choice of sites Poor workmanship and poor quality Pollution and nuisance (noise, dust) and risks of accidents	Information awareness and involvement of the various stakeholders involved. Application of good practices and strict control
Operation phase (commissioning)	Waste Conflicts in management	Organization and involvement of stakeholders Capacity Building

10.5 Mitigation measures for pastoral areas

The following table presents the mitigation measures for pastoral areas.

Activities	Potential impacts	Minimization measures
Work phase	Land conflicts/litigation on the perimeter Conflicts around boundaries	Information, sensitization and involvement of the different stakeholders. Setting up consultation and management frameworks
Operation phase	Risk of increase in livestock Overgrazing Conflicts between users Poor management of perimeters Conflicts between users (with breeders practicing transhumance in particular, and farmers)	Organization and involvement of the stakeholders Capacity Building Information, awareness and Capacity Building Programme Operationalization of consultation and management frameworks

The following table presents the mitigation measures for the construction of dams on the tracks of transhumance corridors

Components	Potential negative impacts	Mitigation measures
Dam construction	***Intrinsic impacts of dams***	

	In the implementation phase • The production of concrete that will cover the soil that will impact it. ***In the phase of building a cofferdam*** • The vegetation and the rocky area will be removed, this will cause the vegetation cover to disappear and the soil will be impacted. ***In preparation of foundations phase*** • Soil and altered rock must be removed with a shovel, pickaxe or crowbar and removed from the site. This activity causes soil degradation, loss of vegetation cover, emission of gas from machines, sound pollution and emission of smoke from machines, production of rock debris, dust and fine particles from drilling rigs. ***In construction phase of the infrastructure*** • This materials transportation phase will generate the emission of dust, fine particles, engine exhaust, • humidification during compaction, which results in the release of water to the site, which may infiltrate or drain to the watercourses surrounding the dam construction site, • Emission of gases by the compaction machine, fumes; the noises will generate the sound impact. ***Phase of development works and major hydraulic infrastructure (dams):*** • Risks of land and cultural conflicts	***In the implementation phase*** Watering the dam construction area ***In the phase of building a cofferdam*** Greening the area with fast growing plants, fertilize degraded soils by bringing fertilized soil. ***In preparation of foundations phase*** Greening the area with fast growing plants, fertilizing degraded soils by bringing fertilized soil, carrying PPE watering the site during construction, using less noisy gear ***In construction phase of the infrastructure*** Water the soil, carry PPE, set up a good moisture management. ***Work phase:*** • Take into account land-related aspects and cultural aspects

	• Degradation of forest resources and risks of incursion into natural reserves • Risk of disturbance of spawning grounds • Deforestation, land degradation by erosion • Loss / reduction of grazing areas • Pollution of air by dust • Strong pressure on land and water • Potential loss of sources of income or property • Risks of diseases such as STDs / HIV / AIDS ***Phase of perimeter exploitation:*** • Strong development pressure on water resources • Environmental risks related to the use of chemical fertilizers (water and soil pollution) • Development of aquatic plants and invasion of grain-eating birds • Land degradation and soil fertility • Social risks in the event of a reduction in farming areas • Impacts on internal and external dynamics	• Reforestation and respect of natural reserve boundaries • Avoid spawning areas when channeling • Protection of workers and awareness • Develop transhumance corridors • Consultation on land and water use • Compensation in case of expropriation • Information / sensitization of populations and construction staff ***Operation phase:*** • Respect for good agricultural practices and technical itineraries • Collection and control of drainage water discharges • Control of aquatic plants and birds • Choice of routes and planting of windbreaks • Consultation with farmees (those renting land) • Information and awareness-raising on migrants; local employment and community basic infrastructure
	• Environmental and health risks due to pesticides on human and animal health	• • Train agents on the safe use of pesticides and the maintenance of treatment equipment; • Avoid contamination by installing buffer zones, • Make pictograms of danger and prohibition of smoking in front of pesticide storage warehouses or packing depots; • Properly handle empty containers that are highly sought after (rinsing, drilling, crushing and conveying to authorized landfill); • Monitoring pesticide levels on a regular basis through analyses; • Designate a Health, Safety and Quality Officer; • Conduct information and awareness sessions (IECs) for local populations on the risks and dangers of pesticides and fertilizers; • Conduct IEC sessions for pesticide applicators; • Carry out cholinesterase tests on all pesticide applicators before campaigns, during campaigns and after campaigns; • Require personal protective equipment (PPE) for all pesticide applicators

		(hood, bezel or face shield, mask, gloves, boots, and overalls).
	• Social risks in case of reduced grazing areas • Risks of social conflicts with the movement of livestock towards the new perimeters	• Consultation with breeders, creation of transhumance corridors and water points and sensitization • Application of PAOS • Delimiting range and pasture Protection of water points • encourager les cultures fourragères pour satisfaire à la demande des éleveurs en fourrage
	• Increased water-related diseases (infrastructure)	• Water Disease Control Programme (see box)
Tracks of transhumance corridors	***Work phase:*** • Loss of biodiversity along the route and at borrowing sites • Encroachment on arable land and socio-economic activities • Obstruction of irrigation and drainage channels and runoff paths • Pollution from construction waste ***Operation phase:*** • Nuisance due to dust, noise	***Work phase:*** • Wise choice of sites • Compensatory reforestation • Focus on existing quarries • Rehabilitation after construction • Awareness and protection of staff • Ecological management of construction waste and evacuation to the municipal landfill ***Operation phase:*** • Regular watering of runways and sensitization

10.6 Good environmental and social practices for the work

The implementation of good practices makes it possible to mitigate and optimize the impacts of the project. These are the following general measures:

- Have the necessary authorizations in accordance with the laws and regulations in force.
- Ensure compliance with hygiene and safety measures during construction work.
- Ensure the collection and disposal of waste generated.
- Inform and sensitize local populations.
- Provide protection measures for protected or rare species.
- Respect cultural sites, customs and traditions.
- Organize the activities of the site, taking into account the nuisance (noise, dust) and the safety of surrounding population.
- Use local labour as a priority.
- Ensure good quality of work, through rigorous controls, and the choice of appropriate technologies.
- Inform and sensitize people before any activity of degradation of private property.
- Compensatory reforestation in case of deforestation or tree felling.
- Preserve protected or rare species.
- Proceed with the installation of the road signs.

10.7 Procedures to be followed in case of discovery of archeological remains

If monuments, ruins, vestiges or ancient tombs, inscriptions or generally objects of interest to prehistory, history, art or archeology are discovered during the works, the Contractor is obliged to declare them immediately to the competent administrative authority (the cultural heritage authorities) as regards the procedures to be followed. A discovery of movable or immovable property must be kept and immediately declared to the administrative authority. The Contractor shall take all precautions to prevent his workers or any other person from removing or damaging such objects or sites. He must also notify the Contracting Authority of the discovery and execute his instructions as to how to dispose of it. It is for the State to decide on the measures to be taken with regard to property inadvertently.

10. Institutional arrangements for the implementation of the ESMF

The peculiarity of the ESMF is that it has to adapt to the context of 9 countries that have some specific characteristics concerning the procedures for the elaboration and implementation of environmental and social assessments. All participating Niger basin countries shall formulate their own ESMFs that are complaint with the AfDB's Integrated Safeguards System (ISS). Country ESMFs shall be reviewed and approved by the AfDB to ensure that they are materially consistent with GCF's environmental and social performance standards.

At the regional level, it is planned to recruit an environmentalist within the Regional Coordinating Unit, who will be responsible for coordinating and monitoring the implementation of the ESMF at the country level. At national level, the management of country components will be entrusted to coordinating units attached to the Ministries Agriculture and Water and Forestry. The Project Coordinating Unit (PCU) per country will be composed of: 1 Coordinator; 1 Engineer / Environmentalist, 1 Agricultural sector Expert, 1 Administrative and Financial Manager, 1 Monitoring and Evaluation Expert and support staff. The Engineer / Environmentalist will be responsible for coordinating and monitoring the implementation of the ESMF in each country component.

Private Service providers (companies, engineering firms, NGOs, individual consultants, etc.) will be responsible for the provision of all other works, goods and services. They will be recruited on a competitive basis, in accordance with ADB procedures, and linked to the Project through contracts. The works and acquisitions will thus be entrusted to specialized companies on the basis of calls for tenders. The supervision and control of this work will be carried out by firms recruited on the basis of a short list.

Environmental monitoring of the PIDACC programme in the countries will be carried out by the structures and administrations responsible for environmental and social assessments (national agencies, offices, services, etc.), which will involve various other stakeholders (decentralized services, local communities, NGOs, population, etc.) in accordance with the legislative, regulatory and institutional frameworks governing the environmental and social assessments applicable to the programme in the target countries. Quarterly environmental monitoring missions will be carried out by decentralized services; and semi-annual missions by the central services (national level). Environmental monitoring of PIDACC activities in each country will be the subject of a convention to be signed with the national structure responsible for environmental monitoring in the country.

The recruitment of a regional environmentalist responsible for regional coordination of the implementation of the programme's ESMFP and for the production of annual programme compliance reports is proposed. The PCU/country Engineer / Environmentalist will be responsible for the implementation of the environmental component of PIDACC programme as well as the

ESMF. Indeed, PIDACC has: (i) a major sub-component Protection of Resources and Ecosystems; (ii) information / awareness programmes; (iii) capacity building programmes; (iv) in addition to monitoring and evaluating the implementation of the ESMF; etc.

The Engineer / Environmentalist of the PCU / country, in relation with different stakeholders will be responsible for:

- implementing the measures contained in this ESMF;
- interfacing with the PCU for all aspects of the application of the ESMFP and other potential environmental and social studies;
- ensuring that the construction companies and the inspection mission comply with the environmental and social clauses inserted in the BDs;
- carrying out site-level checks to ensure that planned environmental and social measures are taken into account;
- responding urgently to any incident or accident that requires verification and monitoring;
- notifying any breach of contractual commitments in terms of environmental and social management.
- ensuring that complaints are properly identified and dealt with;
- ensuring that the ADB's national regulations and environmental policies are respected during the phases of work and implementation of the programme.

11. Procedures and responsibilities for the implementation of environmental and social selection

Applicable Bank safeguards in respect of the PIDACC program include the following (i) Operational safeguard 1 Environmental and social assessment (ii) Operational safeguard 2 Involuntary resettlement: land acquisition, population displacement and compensation (iii) Operational safeguard 3 – Biodiversity, renewable resources and ecosystem services (iv) Operational safeguard 4 – Pollution prevention and control, hazardous materials and resource efficiency and (v) Labour conditions, health and safety.

At this stage of the preparation of PIDACC programme, coarse identification of project sites should be made. Therefore, certain activities of the programme will have to be subject to an environmental selection procedure whose major stages are determined below.

Step 1: Identification, environmental and social selection and project classification

The first step in the selection process is the identification, which is quasi-indicated in the ToRs, which specify that Environmental and Social Impact Studies (ESIS) will be carried out for multi-purpose infrastructure (Sub-component 2.1) selected in each country. The classification of the activity to be carried out within the framework of PIDACC in order to assess its effects on the environment in relation to the administrations responsible for the environmental and social assessment procedures of the Ministries of Environment of the target countries . Almost all legislation establishes an environmental classification of projects and sub-projects into categories: (A) projects that may have major negative impacts; (B) projects with negative or minor impacts; (C) projects whose negative impacts are not significant.

In parallel with determining the appropriate project classification, the screening process will identify the types of EA instruments that may be suitable for the project. Each of the recipient countries, will screen the projects or sub projects for environmental and social impacts—including climate change impacts, potential adaptation and mitigation measures, and the vulnerability of populations and their livelihoods—to determine the specific type and level of environmental and social assessment

compliant with national environment policies and procedures and the AfDB's Integrated Safeguards System.

A screening protocol exists at the AfDB in the form of the AfDB ISS—Guidance Materials Volume 3: Sector Key sheets (2014), checklists, which will guide the borrowers /grantees in, among others, in identifying eligible projects and assessing social and environmental risks and the associated required assessments studies and requirements shall be developed. The ISS sector key sheets determine whether or not an individual proposal requires detailed EA and the level of assessment that should occur. In determining whether a proposal requires further EA, should be rejected, or exempted, screening considers the alignment of the proposal with existing policies and plans, scale of the proposed development, intensity and significance of potential impacts. Other aspects include presence of natural habitats, cultural properties, environmentally sensitive areas, involuntary land acquisition. The screening report/initial environment and social assessment, classifies the project according to its likely environmental and social sensitivity, which determines whether an Environmental and Social Impact Assessment (ESIA) is needed and the required detail.

The screening protocol/AfDB-ISS Sector Key sheets, will be used in concert with other instruments like the Interim environmental and social safeguards of the Green Climate Fund1, to provide guidance on projects on International Waterways, projects in disputed areas and projects involving large dams[2.] These will be addressed at the regional rather than subproject level. The screening protocol /sector sheets provide for negative list of certain types, scales and locations of subprojects that are deemed not eligible for the grant such as large dams

Step 2: Approval of selection and classification

The choice of the sites to receive the sub-projects will be subject to a first screening by the local or regional selection committee, in which the head of the decentralized structure of the country in charge of ESA will be involved and the Engineer / Environmentalist of the PCU/country.

Sub-projects of category (A) according to denominations shall be automatically excluded. Sub-projects of category (B) and sub-projects of category (C) will be eligible. These sub-projects will be submitted to the Steering Committee, which will also involve the national structure responsible for ESA (Central Office or Agency), for validation and follow-up. These sub-projects, according to the ToR, will be those of sub-component 2.1 in each country.

The classification process, from the outset, will therefore involve the administrations responsible for environmental and social assessments. It will continue with the validation of the good environmental categorization. In the end, only the sub-projects selected will be those for which:

- (1) environmental work will not be necessary or
- (2) the application of simple mitigation measures will suffice.

Step 3: Public consultations and dissemination

Public information and participation must be ensured throughout the process of carrying out the study, in cooperation with the competent authorities, technical services, local and regional authorities, NGOs and the populations concerned.

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[1] http://www.gcfreadinessprogramme.org/file/environmental-and-social-safeguards-green-climate-fundpdf

[2] (a) Small dams are normally less than 15 meters in height. This category includes, for example, farm ponds, local silt retention dams, and low embankment tanks.
(b) Large dams are 15 meters or more in height or reservoirs of more than 3 million cubic meters. . Dams that are between 10 and 15 meters in height are treated as large dams if they present special design complexities--for example, an unusually large flood-handling requirement, location in a zone of high seismicity, foundations that are complex and difficult to prepare, or retention of toxic materials. Dams under 10 meters in height are treated as large dams if they are expected to become large dams during the operation of the facility.

The results of the consultations will be made available to the public.

Step 4: Integration of environmental and social provisions into the tender documents

Based on the results of the environmental screening, some recommendations and other environmental and social management measures could be incorporated into the bidding and execution files of the contractors.

Step 5: Implementation of environmental and social measures

Private providers, businesses, administrations, management units, communities, NGOs, etc. will be responsible for the implementation of these environmental and social measures.

The table below sets out the actions and activities to be taken into account during the implementation of the project.

12. Grievance and Redress Mechanism

A grievance and redress mechanism will be included as part of the National Project ESMFs, compliant with the national safeguards and the AfDB ISS (Operational Safeguard 1: Environmental and Social Assessment). The AfDB ISS, upholds the voices of people who are affected by Bank-funded operations, especially the most vulnerable communities, by providing, project-level grievance and redress mechanisms—a structured, systematic and managed way of allowing the voices and concerns of affected people to be heard and addressed during project planning and implementation.

At the country-level —the Bank ensures that clients establish credible and independent local grievance and redress mechanisms to help resolve affected people's grievances and concerns regarding the environmental and social impacts of the project. An independent and empowered local grievance and redress mechanism receives, facilitates and follows up on the resolution of affected people's grievances and concerns about the environmental and social performance of the project. The local grievance mechanism is made accessible to the stakeholders at all times during the project cycle, and all responses to grievances are recorded and included in project supervision formats and reports.

For projects involving the resettlement process, the borrower or client works with informally constituted local committees made up of representatives from key stakeholder groups and, in particular, vulnerable communities to establish a culturally appropriate and accessible grievance and redress mechanism to resolve, in an impartial and timely manner, any disputes arising from the resettlement process and compensation procedures. This is in line with Operational safeguard 2 involuntary resettlement: land acquisition, population displacement and compensation.

The grievance redress mechanism, which is monitored by an independent third party, does not impede access to judicial or administrative remedies, and it informs affected people about the Bank's Independent Review Mechanism (IRM).

Consideration of the environment during the project cycle

Phases	Components	Environmental actions to be carried out
1. Identification (planning)		Sub-project classification

Phases	Components	Environmental actions to be carried out
2. Calls to tender	Bid analyses and awarding	- Integration of an environmental rating criterion in the evaluation grid and bid evaluation
3. Implementation	Launching of the project (inception)	- Start-up meeting to inform and sensitize all institutional stakeholders, including populations, on project activities, duration and scheduling of work, potential impacts, recommended actions , the roles and responsibilities of each in the implementation
	Execution of work	- Monitoring and control of compliance with environmental requirements and commitments and effectiveness of protection measures - Require, if necessary, an environmental expert in the control teams - Ensure that environmental and social actions that cannot be carried out by construction companies are entrusted or subcontracted to more specialized structures (tree planting, awareness-raising on STDs / HIV / AIDS, etc.) - Look for remedies for unexpected adverse effects - Evaluate the treatment of expected and unexpected impacts
4. Project completion		- Environmental acceptance report to be an integral part of the interim or final acceptance process - Retrospective Environmental Assessment Report
5. Operation phase		- Monitoring of environmental and social measures

13. Capacity Building Programme

An important capacity building component is already foreseen in the activities of PIDACC/NB. In order to ensure that PIDACC activities are carried out in an environmentally and socially sustainable manner, the programme will also integrate this “capacity building in environmental and social assessment” component. This will involve organizing training sessions and exchange workshops at the sub-regional level, in each country and in the intervention areas of the programme, to enable the agents and stakeholders involved in the implementation to master the environmental and social management tools of the programme and to play their respective roles more effectively in the Implementation of PIDACC/NB activities. These stakeholders will be responsible for ensuring the integration of the environmental dimension in the implementation of the programme's activities at sub-regional, national, regional, local / communal levels. Capacity building measures are summarized in the table below.

Stakeholders concerned	Training topics	Expected results
Directorates and structures involved in the implementation of the ESMFP (Environment, Agriculture, Waters and Forestry),	Organization of a sub-regional workshop on harmonization and exchange on the ESMFP implementation	• Sharing experiences • Have a common vision
Technical services	• Information and awareness-raising campaigns	• Optimize productions • Sustainable management of natural resources

Stakeholders concerned	Training topics	Expected results
Professional organizations, NGOs Producers, local organizations, etc.	• Good environmental management practices • Hygiene and quality standards • Pesticide management and use of fertilizers • Development standards • Conflict management	• Involve all stakeholders and ensure their commitment to the implementation of the programme
Technical services Coordinating units Communities, NGOs, etc.	• Procedure for screening sub-projects • Use of the Environmental and Social Management Guide for sub-projects • Screening of sub-projects • Monitoring and surveillance of sub-projects.	• Monitor and surveillance the implementation of the ESMFP.

14. PUBLIC CONSULTATION

14.1 Public consultation process in the NBA countries

In each of the member countries of the Niger Basin concerned with PIDACC, the approach used to carry out this study includes:

- interviews with the National Focal Structures (NFS);
- prior information from administrative authorities;
- interviews with local administrative authorities;
- interviews with the representatives of the technical ministries involved in the projects;
- consultation sessions with traditional authorities and local communities that will host the various projects.

14.2 Public consultation process in Chad

In order to allow stakeholders to better understand the activities planned under PIDACC/NB to better refine their concerns and possible expectations, the consultant initiated a series of meetings from 1 to 9 April 2016 in the various localities concerned, namely Gounou Gaya, Pont Carol, Tikem, Fianga, Pala, Gagal, Lere and Binder.

Concerns were, among others, related to the following:

- Defending the aquatic environment in Kabbia Lake;
- The phenomenon of bush fires that destroy vegetation cover and deplete soils through initiation into split-fire practices;
- The absence of transhumance corridors for animals, which encourages recurrent conflicts between farmers and livestock breeders;
- Inadequate ponds or water reservoirs and lack of maintenance of existing ones; which causes their silting.

Stakeholders and project beneficiary communities also expressed their expectations as follows:

- Initiate reforestation programmes and community development projects;

- Provide technical support for soil restoration, nursery production for reforestation, and drilling;
- To desensitize the Mayo so that they can return to their beds and become more fish-filled; Forecast the construction of the banks to better fix the Mayo but also reduce the speed of winds that cause wind erosion and water erosion.
- Encourage fodder crops for livestock feed.

14.3 Public consultation process in Niger

As part of the implementation of the Public Information and sensitization component of PIDACC/NB, the Consultant held discussions with the project beneficiaries on 17 December 2015 in the locality of Tara (Department of Gaya), then on 25 and 29 January 2016, respectively in Ouro Sawabé (Department of Torodi) and Talkoboye Koira Tagui (Department of Ouallam).

The concerns raised by the populations of each locality are presented in the following table:

Financing of development projects in the localities to host the projects;

Strengthening the technical and material capacities of stakeholders.

Recruiting the local workforce.

Support to Income Generating Activities (IGAs).

Concerns expressed by the populations encountered in Niger

Date of consultation	**Village / Department**	**Population position**	**Concerns expressed**
17 December 2015	Tara/Gaya	Project-friendly	• Treatment of the four (4) Koris threatening the village and crop fields ; • Rehabilitation / construction of the small bridge that connects the village of Tara with the city of Gaya ; • Construction of a dyke to protect the irrigated perimeters; • Capacity building of irrigators in advisory (training and school fields) and technical (motor pumps, small equipment and agricultural inputs) support); • Purchase of a generator for the supply of the mini DWS of the village of Tara ; • Support for women's IGAs ; • Development of fish farming in the area through pond development and fish stocking; • Recruitment of unskilled local labour
25 January 2016	Ouro Sawabé/ Torodi	Project-friendly	• Construction of market gardening wells for irrigators ; • Donation of agricultural equipment and materials to farmers (motor pumps, small equipment, rakes, wheelbarrows, etc.); • Advisory and technical support (agricultural inputs, pesticides, fertilizers, improved seeds, etc.) ; • Development of Habanayé in the area ; • Distribution of livestock feed to livestock farmers in the area; • Development of WSC/DSR activities;

			• Support for IGAs; • Recruitment of unskilled local labour
29 January 2016	Talkoboye Koira Tagui /Ouallam	Project-friendly	• Donation of agricultural equipment and materials to irrigators (motor pumps, wheelbarrows, rakes, etc.); • Construction of a dike to protect the village and irrigated plots against flooding by Kori waters from Mali; • Development of WSC/DSR activities in the area to create employment for young people and women; • Construction of market gardens for farmers; • Support for agricultural inputs (pesticides, fertilizers and improved seeds); • Extension of the drinking water supply network in the village with the creation of other standpipes; • Capacity building of farmer organizations in the development of irrigation; • Support for IGAs.

At each of these various meetings, the Consultant first presented the sub-projects foreseen under PIDACC/NB before allowing the populations to express their concerns and expectations as presented in the attached minutes.

14.4 Public consultation process in Burkina Faso

Public consultations were held in the Intervention Regions of PIDACC to address the concerns of stakeholders and beneficiary stakeholders in the Sahel, East and Central East Regions.

They are essentially structures represented at the local level, namely public bodies such as DREDD, DRRA, DRAASA and DRIDT, on the one hand, and the town hall of Tenkodogo; and non-governmental organizations (NGOs) such as Reach Italia, AGED, ADELE and ARFA.

These meetings served as a framework for discussing the expected actions of the programme and its impact on the environment and society.

In all the Regions visited, the planned activities met with the approval of the local stakeholders who found in this programme the opportunity of an effective management of the environment and a real commitment in the fight against the climatic changes by adequate mitigation measures and increased resilience of the Niger Basin populations.

However, some concerns have been raised that can be summarized as follows:

- Inclusion of young people in the recruitment of staff for the implementation of PIDACC projects;
- Supporting endogenous knowledge of the different localities for the implementation of the projects;
- Strengthening the capacities of the decentralized technical services of the State and other local stakeholders.

14.5 Public consultation process in Mali

In Mali, the public participation component consisted in initiating an information and exchange meeting with various structures (Representative of the Prefect, Koulikoro RC, DRACPN, DRA, DRPIA, DRP, DREF, DRGR, DRH, GEDEFOR, NFS-NBA, CAFO) gathered in an Inter-

ministerial Consultative Committee on 1 February 2016 in the deliberative room of the Koulikoro Regional Council.

This meeting served as a framework for the Consultant's team to present the project's promoter and its consistency. After which participants were able to express their concerns, which are recorded in the attached minutes and summarized in the following lines:

- Initiate information and awareness campaigns on the activities of the project prior to their launch in cooperation with local radio stations;
- Integrate projects in the livestock sector;
- Establish the fodder perimeter system for rational and sustainable management;
- Involve research structures to facilitate the introduction of bourgouculture in the Koulikoro region;
- Provide communities with floating cage or training in floating cage techniques;
- Add watersheds to avoid water currents for better soil conservation and gully treatment;
- Rehabilitate rural roads to facilitate the flow of products;
- Clarify the institutional anchorage of the project in relation to decentralized communities such as the Regional Council;
- Carry out studies at various DED, PD and implementation levels to enable people to take ownership of them;
- Initiate awareness activities on bushfires, reforestation and agro-forestry activities;
- Disseminate forestry texts through local elected representatives;
- Establish a system to promote water availability for agricultural activities;
- Clarify the land situation of the sites prior to project start-up;
- Protect classified forests;
- Provide for pastoral areas;
- Fight against silting of the river in the project;
- Comply with national environmental protection policy and regulations and ADB guidelines as part of the implementation of mitigation measures;
- Build the capacities of the elected representatives and the people in the implementation of the project.

14.6 Public consultation process in Benin

As part of its project stakeholder consultation, the Consultant initiated a series of meetings with several structures and organizations involved in various sectors.

For example, meetings of information and exchanges were held with:

- the National Focal Structure, on 11 and 12 January 2016 in Cotonou for the scoping of activities and the mission;
- the executives of CARDER BORGOU-ALIBORI and the technical services and representatives of the BORGOU-ALIBORI Department, on 25 January 2016 in Parakou;
- Mayors, RDRs, farmers, processors, breeders, merchants, communal producer unions and market gardeners in Nikki, Kalalé, Bembereke and Sinendé communes, on 26 January 2016 in Bembereke;

- Mayors, RDRs, farmers, processors, breeders, traders, communal producers' unions and market gardeners in the communes of Banikoara, Gogounou, Kandi, Karimama, Malanville and Ségbana in Kandi, ATACORA, on 27 January 2016;
- Representatives of mayors, RDR representatives, farmers, processors, breeders, merchants, communal unions of producers and market gardeners from the communes of Kérou, Kouandé, and Péhunco in Kérou, on 28 January 2016.

In addition, the Consultant carried out a documentary review from 12 to 13 January 2016 with the team of national consultants in charge of the preliminary technical studies as well as the Directorate General of Water, the Directorate General of Forestry and Natural Resources, the Benin Environmental Agency and the Directorate General of Rural Development and Equipment.

At each of the meetings, the Consultant initially presented the ID SAHEL Consulting firm and its missions within the framework of PIDACC/NB, namely carrying out environmental and social assessments in DED and PD phases. Then, the consistency of the activities planned in the various regions and localities was described in order to situate the issues and allow the people to express their concerns and expectations, which are recorded in an attached report.

At the level of the issues of PIDACC/NB, the following points were noted by the participants:

- Plan for aforestation of forests with shea butter to increase shea butter production and increase honey production; all this will increase the income of the populations in order to reduce the pressure on the forests (abusive cutting of wood);
- Build a nursery center to promote the stocking of fish ponds and deal with problems of fish shortages during the period of scarcity;
- Set up fish ponds to reduce the pressure on water reservoirs and dams that lead to their silting and then their disappearance;
- Implement DSR mechanical and biological work, water and soil conservation work on cultivated plots, mechanical and biological treatment of ravines, improved fallow and agro6forestry to promote the maintenance of the biological balance of ecosystems;
- Increase the resilience of populations through the implementation of IGAs (beekeeping, fish farming, small livestock farming, irrigation schemes) in order to contribute to raising the living standards of populations;
- Establish an adequate institutional framework for the implementation of PIDACC/NB;
- The construction of protective dams to prevent flooding.

With regard to the participants' concerns, they relate to the following points:

- The construction of a hydro-agricultural dam at Nikki to compensate for the lack of water and an inter-communal dam between Nikki and Kalalé on the OLY river;
- The financing of Income Generating Activities (IGAs) for women and young people to build resilience and fight poverty;
- The definition of an implementation and operationalization approach of PIDACC/NB with the involvement of local stakeholders;
- The definition of a clear monitoring and evaluation mechanism;
- clarification of the sites and beneficiary localities of the projects, while taking care not to favour discrimination in their choices;
- The installation of fodder plots to settle livestock farmers;
- Capacity building of stakeholders on integrated soil fertility management techniques;

- The possibility of proposing activities other than those already identified, in particular the construction of grazing areas and nurseries which must be accessible to the populations of the various communes;
- Building the human and technical capacities of the people in the production, conservation and processing of agricultural and market products;
- Identifying opportunities for wood and non-wood products;
- Securing sites, taking into account the new federal land code;
- Updating seeding periods in relation to climate change;
- Consideration of the Integrated Water Resources Management (IWRM) principle in the construction of multi-purpose dams;
- Consideration of short-cycle varieties in adaptation to climate change;
- Creation of a conflict management component.

The consultant provided clarification and answers to the various concerns of the participants. Contributions were made by some participants to better substantiate the concerns raised.

14.7 Public consultation process in Côte d'Ivoire

In order to enable project stakeholders to be sufficiently involved in the project and to express their concerns and expectations, the Consultant initiated various meetings in Abidjan and the three regions concerned, namely KABADOUGOU, FOLON and BAGOUE.

In Abidjan, the Consultant had several scoping sessions with the Heads of the Directorate of Water Resources Management and Protection (DGPRE) of the Ministry of Water and Forestry, Niger Basin Authority Focal Point, and the Firm in charge of preliminary technical studies.

These sessions also helped to prepare the field mission to visit the sites and meet with the administrative authorities, the heads of the local structures involved in the project (Regional Directorate for Animal and Fish Resources and Water and Forestry, National Office for the Development of Rice Farming) and the populations coming from the beneficiary localities and likely to be impacted.

Afterwards, the ID SAHEL Consultant carried out a reconnaissance mission from Monday, 1 to Saturday, 6 February 2016 in the regions of FOLON (2 February), KABADOUGOU (3 February) and BAGOUE (4 and 5 February), and, together with the representatives of the relevant technical structures.

In each of the regions, and prior to the start of site reconnaissance visits, the Consultant held working sessions with administrative and customary authorities, farmers and breeders, NGOs and associations.

The main points addressed were:

- Recurring conflicts between farmers and breeders;
- The provision of a site to serve as a drinking trough for animals;
- The need to protect a classified forest in the area;
- Inadequate involvement of the population in the implementation of projects and programmes;
- The lack of awareness of the nature of the projects to be carried out.

In the light of the grievances expressed, the people wanted PIDACC/NB to contribute to the financing of development projects.

14.8 Public consultation process in Cameroun

In order to implement the public consultation process, the SAHEL ID Consultant initially proceeded with the identification of the stakeholders, namely:

- sectoral managers of the administrations concerned by the programme;
- beneficiary populations potentially impacted by projects.

Subsequently, the Consultant conducted a mission to the programme area (see calendar of the mission in Annex 1), during which he conducted interviews with the administrations concerned and meetings with the beneficiary populations / potentially impacted by the projects of the programme.

Concerning the administrations concerned, meetings were held with their officials. Specifically, they are:

- at the central level, the PIDACC/NB programme manager at MINEPAT;
- at the regional level, the MINEPAT Regional Delegate, the MINDCAF Delegate, the MINEE Delegate, the Head of the Northern Development and Planning Study Mission (MEADEN) and the Regional Chief of Wildlife and Protected Areas of MINFOF;
- at the departmental level, the Delegate of MINEPIA, the MINOCAF Delegate of Mayo Louti, MINFOF Delegate of Mayo Louti, Prefect of Faro and Deo, Delegate of MINEPAT of Faro and Deo, Delegate of MINADER of Faro and Deo, the Delegate of MINADER of Benue and the Delegate of MINEPDEP of Benue;
- at the local level, the Lagdo MINEPIA Department Delegate, the Mayor of Hina, the MINEPIA District Delegate of Rey Bouba and the Head of the Fish Rearing and Control Center of Alpha.

During these meetings, a maintenance guide was administered to each manager. The persons consulted filled in the form of the persons met.

With regard to beneficiary populations potentially affected by the projects, the Consultant held several information and exchange sessions on the following points:

- knowledge of the programme by the populations;
- population perception of the programme;
- the concerns and fears of the populations with regard to the projects of the programme;
- the expectations of the populations.

At the end of the public consultations, it appears that the stakeholders are enthusiastic and fully adhere to the various projects identified within the framework of PIDACC/NB.

Indeed, the sectoral managers of the administrations and the beneficiary populations consider that PIDACC/NB constitutes an opportunity for the socio-economic development of the areas concerned and the strengthening of local communities' resilience.

However, in environmental and social terms, PIDACC/NB activities involve some risks, particularly with regard to the sustainable management of fishery resources, water resources

and the agricultural potential of the areas concerned, which are of concern to stakeholders and beneficiary communities.

These risks include:

- Destruction of some dwellings located on the project sites and a potential increase in the crime rate in some areas (Dami case) ;
- Over-exploitation of fisheries resources and water resources;
- Inadequate consideration of the environmental specificities of the project areas.

At the level of expectations, stakeholders and beneficiaries wish to:

- improve communication around PIDACC/NB activities;
- establish a maintenance system for existing infrastructure in the areas concerned (Hina case);
- transfer the management of the various works to the beneficiary populations;
- construct additional infrastructure enabling the development economic activities in project areas be constructed (buildings for restaurants);
- implement projects for the opening-up and supply of electricity;
- establish a coordinating body for the activities identified within the framework of PIDACC/NB.

14.9 Public consultation process in Nigeria

The public consultation process initiated by ID SAHEL Consultant for the conduct of PIDACC/NB activities in Nigeria enabled the organization of meetings between 17 February and 5 March 2016 with the National Focal Structure and the administrative authorities, Representatives of the participating technical ministries and communities of the beneficiary localities.

With NFS, the meeting consisted of presenting the tasks assigned to the ID SAHEL consulting firm and an exchange on the various projects identified by PIDACC/NB as well as the beneficiary localities.

Information and exchange meetings were also held by the Consultant in the Upper Niger River Basin, Abuja, Upper Benue River Basin and Anambra-Imo River Basin states as detailed in the following table.

14.10 Public consultation process in Côte d'Ivoire

In order to enable project stakeholders to be sufficiently involved in the project and to express their concerns and expectations, the Consultant initiated various meetings in Abidjan and the three regions concerned, namely KABADOUGOU, FOLON and BAGOUE.

In Abidjan, the Consultant had several scoping sessions with the Heads of the Directorate of Water Resources Management and Protection (DGPRE) of the Ministry of Water and Forestry, Niger Basin Authority Focal Point, and the Firm in charge of preliminary technical studies.

These sessions also helped to prepare the field mission to visit the sites and meet with the administrative authorities, the heads of the local structures involved in the project (Regional Directorate for Animal and Fish Resources and Water and Forestry, National Office for the Development of Rice Farming) and the populations coming from the beneficiary localities and likely to be impacted.

Afterwards, the ID SAHEL Consultant carried out a reconnaissance mission from Monday, 1 to Saturday, 6 February 2016 in the regions of FOLON (2 February), KABADOUGOU (3 February) and BAGOUE (4 and 5 February), and, together with the representatives of the relevant technical structures.

In each of the regions, and prior to the start of site reconnaissance visits, the Consultant held working sessions with administrative and customary authorities, farmers and breeders, NGOs and associations.

The main points addressed were:

- Recurring conflicts between farmers and breeders;
- The provision of a site to serve as a drinking trough for animals;
- The need to protect a classified forest in the area;
- Inadequate involvement of the population in the implementation of projects and programmes;
- The lack of awareness of the nature of the projects to be carried out.

In the light of the grievances expressed, the people wanted PIDACC/NB to contribute to the financing of development projects.

14.11 Public consultation process in Cameroun

In order to implement the public consultation process, the SAHEL ID Consultant initially proceeded with the identification of the stakeholders, namely:

- sectoral managers of the administrations concerned by the programme;
- beneficiary populations potentially impacted by projects.

Subsequently, the Consultant conducted a mission to the programme area during which he conducted interviews with the administrations concerned and meetings with the beneficiary populations / potentially impacted by the projects of the programme.

Concerning the administrations concerned, meetings were held with their officials. Specifically, they are:

- at the central level, the PIDACC/NB programme manager at MINEPAT;
- at the regional level, the MINEPAT Regional Delegate, the MINDCAF Delegate, the MINEE Delegate, the Head of the Northern Development and Planning Study Mission (MEADEN) and the Regional Chief of Wildlife and Protected Areas of MINFOF;
- at the departmental level, the Delegate of MINEPIA, the MINOCAF Delegate of Mayo Louti, MINFOF Delegate of Mayo Louti, Prefect of Faro and Deo, Delegate of MINEPAT of Faro and Deo, Delegate of MINADER of Faro and Deo, the Delegate of MINADER of Benue and the Delegate of MINEPDEP of Benue;
- at the local level, the Lagdo MINEPIA Department Delegate, the Mayor of Hina, the MINEPIA District Delegate of Rey Bouba and the Head of the Fish Rearing and Control Center of Alpha.

During these meetings, a maintenance guide was administered to each manager. The persons consulted filled in the form of the persons met.

With regard to beneficiary populations potentially affected by the projects, the Consultant held several information and exchange sessions on the following points:

- knowledge of the programme by the populations;
- population perception of the programme;
- the concerns and fears of the populations with regard to the projects of the programme;
- the expectations of the populations.

At the end of the public consultations, it appears that the stakeholders are enthusiastic and fully adhere to the various projects identified within the framework of PIDACC/NB.

Indeed, the sectoral managers of the administrations and the beneficiary populations consider that PIDACC/NB constitutes an opportunity for the socio-economic development of the areas concerned and the strengthening of local communities' resilience.

However, in environmental and social terms, PIDACC/NB activities involve some risks, particularly with regard to the sustainable management of fishery resources, water resources and the agricultural potential of the areas concerned, which are of concern to stakeholders and beneficiary communities.

These risks include:

- Destruction of some dwellings located on the project sites and a potential increase in the crime rate in some areas (Dami case);
- Over-exploitation of fisheries resources and water resources;
- Inadequate consideration of the environmental specificities of the project areas.

At the level of expectations, stakeholders and beneficiaries wish to:

- improve communication around PIDACC/NB activities;
- establish a maintenance system for existing infrastructure in the areas concerned (Hina case);
- transfer the management of the various works to the beneficiary populations;
- construct additional infrastructure enabling the development economic activities in project areas be constructed (buildings for restaurants);
- implement projects for the opening-up and supply of electricity;
- establish a coordinating body for the activities identified within the framework of PIDACC/NB.

15- Environmental monitoring and surveillance programmes

Environmental monitoring is intended to ensure compliance with:

- the recommended measures;
- commitments made by Contracting Authorities and Project Managers;
- requirements for applicable laws and regulations.

As for environmental monitoring, it will make it possible to verify, on the ground, the accuracy of the assessment of certain impacts and the effectiveness of certain measures under the ESMFP, for which there is uncertainty. Knowledge gained from environmental monitoring will help to correct inappropriate measures and possibly revise some inefficient environmental protection standards. The Monitoring Program describes: (i) items to be monitored; (ii) monitoring methods / devices; (iii) monitoring responsibilities; (iv) the monitoring period.

The objective of this environmental monitoring programme is to ensure that the mitigation and compensation measures selected are implemented and implemented as planned.

Environmental and social monitoring will be provided by the PCU / Country Engineer / Environmentalist; the internal monitoring of the implementation of components will be carried out by the Technical Committee and the Ministries concerned; the external monitoring will be carried out by the authorized services of the Ministry of the Environment, the Monitoring Committees and the Communities. The evaluation will be carried out by Consultants.

As an indication, the following tables present indicators for monitoring environmental measures.

Environmental monitoring indicators of the ESMF

Measures	**Areas of intervention**	**Indicators**
Technical measures	Conduct of Strategic Environmental and Social Studies	Number of SESA carried out
Project Monitoring and Evaluation Measures	Environmental monitoring and environmental surveillance of the Project ESMFP assessment (internal, mid-term and final)	Number and types of indicators monitored Number of monitoring missions
Training	Environmental and social assessment of projects; Monitoring and implementation of environmental measures	Number and nature of modules developed Number of agents trained Type of trained agents
Awareness-raising	Communication and awareness campaign	Number and type of sensitized persons

Indicators and environmental and social monitoring mechanism

Monitoring elements and Indicator	**Monitoring Methods and Devices**	**Person in charge**	**Period**
Waters - Pollution - Eutrophication	- Ground and surface water monitoring - Monitoring of activities relating to the use of surface water,	Control mission	On a daily basis during construction

Monitoring elements and Indicator	Monitoring Methods and Devices	Person in charge	Period
- Sedimentation - Water regime	- Visual assessment of river flows - Control of the turbidity of watercourses and water bodies - Control of mitigation measures Physico-chemical analysis of surface and groundwater	Specialized Services Research Center Consultants Hydraulic Service Project Environment Service	Semi-annual Start, mid-term and completion
Soils - Erosion/gully - Pollution/degradation	- Evaluation of control measures (anti-salt dams, etc.) against salinization - Visual evaluation of soil erosion control measures	Control mission	On a daily basis during construction
		Project Environment Service Specialized Services	Semi-annual Start, mid-term and completion
Vegetation / wildlife Degradation rate Reforestation rate	- Visual evaluation of vegetation degradation - Visual assessment of reforestation / planting measures - Monitoring and surveillance of sensitive areas - Control of the damage to wildlife	Control mission	On a daily basis during construction
		Project Environment Service Forestry Service Consultants	Quarterly Start, mid-term and completion
Human Environment Living environment Socio-economic activities Space occupation	- Control of the occupation of private land / agricultural fields - Respect for historical heritage and sacred sites - Control of the effects on production sources	Control mission	On a daily basis during construction
		Services concerned Project	Start, mid-term and completion
Hygiene and health Pollution and nuisances	Verification: - The presence of vectors of diseases and the appearance of water-related diseases - Various diseases related to the projects (STDs / HIV / AIDS, etc.) - Compliance with hygiene measures on site - Monitoring of waste management practices	Control mission	On a daily basis during construction
		Project Health Districts Consultants	Quarterly Start, mid-term and completion

Monitoring elements and Indicator	Monitoring Methods and Devices	Person in charge	Period
Security	Verification: - The availability of safety instructions in the event of an accident - Compliance with traffic regulations - Wearing adequate protective equipment	Control mission	On a daily basis during construction

16. ESTIMATED COSTS OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK PLAN (ESMFP)

The costs of the Environmental and Social Management Framework Plan include the costs related to capacity building on the one hand, and those relating to the implementation of the Social and Environmental Strategic Assessment which are considered as environmental and social costs and those relating to physical capacity building activities of NBA. They are shown in the tables below.

Implementation and Capacity Building Costs

Proposed actions	Description	Costs in million CFAF
Recruitment of a SESA Expert	Expert with a strong experience in environmental and social assessment (ESMFP, CPR, ESIA / ESMP and PAR), recruited part-time, for approximately 3 years	9, 000
Documentation of ESIA previous projects	Compendium of ESIS ESMPs by consultants	10, 000
Information and awareness-raising before and during work	Development of a programme and information, awareness-raising and advocacy campaigns on the economic, environmental and social issues of the sub-projects, Administration supported by consultants	200,00
Capacity building of NBA executives and technical services of the Administration and the associations of the users and water. IWRM Country devices and Institutional measures	Development of a programme of training modules in SESA, ESIS, PAR, Environmental Audits, Environmental and Social Monitoring	682,000
Building community adaptation capacities		600,605
Environmental monitoring and surveillance of Strategic Environmental and Social Assessments by NBA	Monitoring during implementation and monitoring by the State Secretariat for the Environment, communities, NGOs and civil societies, etc.	80,000
Mid-term project evaluation	Mid-term and final	50,000

Technical inspection of rehabilitation work	Before rehabilitation work	Included in rehabilitation work on micro-dams
TOTAL		**1 629,605**

Costs of technical measures

Activities	Quantity	Costs in CFAF
Review of legislation on extractive industries	-	50 000
Development of guides to good practices and safety standards	2 manuals	200,000
Development of environmental and social guidelines	2	30,000
Establishment of an Environmental Data Base	2	100,000
Provision for environmental and social audits		50,000
Mitigation of past effects of existing projects		150,000
Biannual evaluation of the SESA (after two years)	1	20,000
Building NBA's capacities in equipment and sector capacities (logistics, analytical instruments, kits, etc.)	-	666,000
TOTAL		**1 266,000**

Costs of awareness and popularization of the environment (establishment of environmental units in the technical services of the administration.

Stakeholders concerned	Quantity	Costs in CFAF
Dissemination • Regional and National and Social Coordinating Units and Other Technical Services • Private operators and civil society	-	1 776,000
Awareness and dissemination of information • Riparian populations • Local associations	-	666,000
TOTAL		**2 442,000**

The estimated cost of the Environmental and Social Management Framework (ESMF) is Five Billion, Three Hundred and Thirty Five Million, Six Hundred and Five Thousand (5,335,605,000) CFA francs for an equivalent of 9.2 million USD.

17. Timetable for the implementation and monitoring of SESA measures

Activities			Timeframe				
			A1	A2	A3	A4	A5
Mitigation Measures	ESMFP Mitigation of the effects of previous potential negative impacts of existing projects and those generated by current projects.						
Institutional measures	Capacity building in Environmental and Social Assessment						
Niger Basin Authority (NBA)	Capacity building of NBA, the technical services of the General Administration and associations of structures and water. IWRM devices of countries.						
Technical measures	Elaboration of the ESIAs of the Projects of Component 2.1 of the selected projects for some country activities.						
Information and sensitization	Information, awareness and mobilization of regional, national, communal and local stakeholders and populations						
Monitoring measures	Environmental monitoring and environmental surveillance of the project	Close monitoring					
		Supervision					
	Evaluation	Mid-term final					