



AFRICAN DEVELOPMENT BANK GROUP

PROJECT : OMVG ENERGY PROJECT

COUNTRIES: GAMBIA, GUINEA, GUINEA-BISSAU, SENEGAL

SUMMARY FULL RESETTLEMENT PLAN (FRP)

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| Project Team | Project Team | Mr. A. B. DIALLO, Chief Energy Engineer, ONEC.1 Mr. P. DJAIGBE, Principal Financial Analyst, ONEC.1/SNFO Mr. K. HASSAMAL, Economist, ONEC.1 Ms. S. MAHIEU, Socio-Economist, ONEC.1 Mrs. S.MAIGA, Procurement Officer, ORPF.1/SNFO Mr. O. OUATTARA, Financial Management Expert, ORPF.2/SNFO Mr. A. AYASI SALAWOU, Legal Consultant, GECL.1 Mr. M. L. KINANE, Principal Environmentalist, ONEC.3 Mr. S. BAIOD, Environmentalist, ONEC.3 Mr. H. P. SANON, Socio-Economist, ONEC.3 |
| | Sector Manager: Regional Director: Division Manager: | Mr. A. RUGUMBA, Director, ONEC Mr. J. K. LITSE, Acting Director, ORWA Mr. A. ZAKOU, Division Manager, ONEC.1 |

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Countries: GAMBIA, GUINEA, GUINEA-BISSAU, SENEGAL

Department : ONEC

Division: ONEC1

INTRODUCTION

The Gambia River Basin Development Organization Energy Project (OMVG Energy Project) involves the following four countries: Gambia, Guinea, Guinea-Bissau and Senegal. This sub-regional organization is the executing agency for integrated development programmes in the region, and focuses particularly on the rational management of the joint resources of Rivers Gambia, Kayanga-Géba and Koliba-Corubal, whose basins have power-generating potential.

At the request of the authorities of the above-mentioned four countries, the African Development Bank will support the implementation of the OMVG Energy Project under co-financing arrangements with AFD, the World Bank, EIB, IsDB, KFW and the States concerned.

From the environmental and social perspective, the project is classified in Category 1, taking into consideration the nature of the works to be undertaken, the size and scope of the project, as well as its potential direct and indirect impacts.

The implementation of the OMVG Energy Project entails the expropriation, in the public interest, of buildings, farmland, crops, trees and non-residential buildings. It will also result in loss of income-generating activities.

Therefore, in accordance with the African Development Bank's policy on involuntary displacement, the Governments of Gambia, Guinea, Guinea-Bissau and Senegal have developed a Full Resettlement Plan (FRP) for the compensation and resettlement of project-affected persons (PAPs). Its objectives are to: (i) minimize involuntary displacement as much as possible; (ii) avoid the destruction of property where possible; and (iii) compensate affected persons for the loss of residential plots, farmland, buildings and equipment, as well as the loss of income.

The four countries have decided to entrust the project implementation to OMVG, their joint executing agency, and also to adopt common provisions enabling them to present the project's resettlement plan as a single document, while highlighting the specificities of each country. OMVG will be responsible for the implementation.

I. DESCRIPTION OF THE PROJECT AND ITS IMPACT AREA

I.1 Project Description

The overall goal of the OMVG Energy Project is to contribute to the socio-economic development of the member countries of the organization by increasing the populations' access to electricity. It aims to enable energy trade and improve the quality of electricity supply in OMVG member countries by providing renewable and clean energy at a competitive cost. The main outcomes of the project include: increased access to electricity, expansion of the power trade system, and creation of a regional electricity market. The use of water resources will also significantly reduce the consumption of fossil fuels and, by the same token, reduce greenhouse gas emissions.

The project components are as follows:

| Components | Description |
|-----------------------------|--|
| Electricity Production | Construction of the Sambangalou Hydroelectric Plant (128 MW, 402 GWh/year) in Senegal on River Gambia. |
| Electricity Interconnection | Construction of: (i) a 1 677 km-long loop and a 225 kV power transmission line interconnecting the four countries; (ii) fifteen (15) sub-stations for injecting power into national grids; and (iii) a dispatching centre for the management of power flows. |
| Institutional Support | Project management assistance, capacity building |
| Project Management | Operation of the Project Management Unit (PMU), works control and supervision, management of environmental and social impacts, and project audit. |

The pre-construction and construction activities of the Sambangalou hydroelectric plant are expected to last four years, with the filling and commissioning scheduled for 2017 and end-2018 respectively.

I.2 Project Impact Area

SAMBANGALOU HYDROELECTRIC DEVELOPMENT

The Sambangalou hydroelectric plant is located on River Gambia in Senegal, a few kilometres north of the border with Guinea and 18 km south of Kédougou. Access on the left bank is from Kédougou, upstream from Bandafassi and Yamoussa, that is, a total distance of 31 km.

The dam's reservoir will have an area of 181 km² and a volume is 3.8 billion m³, of which nearly half is useful, and the scheme will straddle Senegal (20%) and Guinea (80%). Sambangalou village, from which the site derives its name, is in the immediate vicinity of the latter.

In Guinea, the area affected by the plant is exclusively concentrated in Mali Prefecture, which has a population of 211 130 inhabitants, of whom 172 321 are rural residents. The Sub-Prefectures of Balaki (7 426 inhabitants), Salambandé (12 000 inhabitants), Lébékéré and Mali Urban Commune are the administrative units in whose jurisdictions are located the villages and sectors covered by the studies on the Sambangalou hydroelectric plant.

In Senegal, the reservoir and the area where the structures are located fall within Fongolombi and Bandafassi Sub-Prefectures, in Kedougou Department. The population of the Department is estimated at 78 806 people, of whom 21 86 reside in Bandafassi Sub-Prefecture and 13 450 in Fongolombi District.

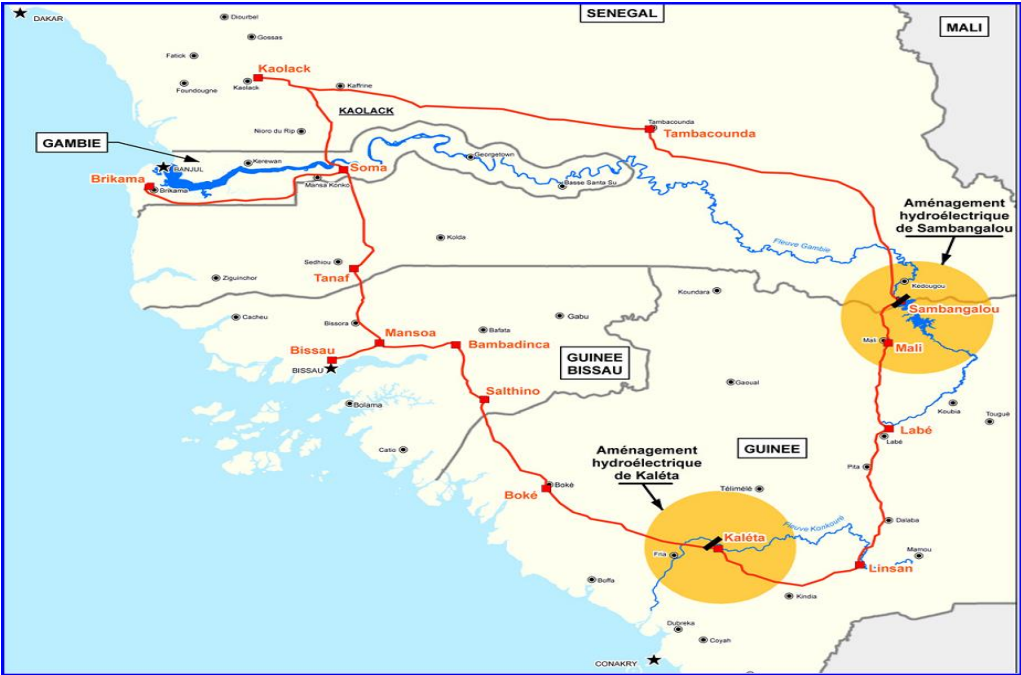
The structures, service facilities, worksite installations facilities and access to the site are all located in Senegal, through which supplies and equipment will be routed. A 7 metre-wide and 24 km-long earth road will be constructed from Kédougou, on the right bank of the river, largely covering the Kedougou-Bara local road. The proposed road will include a crossing on the Gambia at Kédougou in the form of a floating bridge about 175 m long. This bridge, like the access road, will be open to normal traffic. The road will link the contractor's temporary site accommodation and that of OMVG, the power plant and crest of the dam. The access road to the Sambangalou sub-station will be built on the left bank, thus facilitating access to Tépéré Diantou.

The impact area is dominated by the forest environment, especially the wetlands bordering the River Gambia up to its mouth.

The description of the human environment is based on the administrative units affected by the project. Thus, from the Sambangalou reservoir to the sea, the administrative units affected by the Sambangalou hydroelectric plant are:

| Country | Major Territorial Units | |
|---------|--|--|
| | Right Bank | Left Bank |
| Guinea | Labé Region Mali Prefecture | |
| Senegal | Kédougou and Tambacounda Regions | Tambacounda, Kédougou and Kolda Regions Vélingara Department (very little) |
| Gambia | Upper River Division | |
| | Upper River Division (Basse Santa Su) Central River Division North (Janjanbureh) North Bank Division (Kerewan) | Upper River Division (Basse Santa Su) Central River Division South (Janjanbureh) Lower River Division (Mansakonko) Western Division (Brikama) |

Source: COTECO, 2004



Map showing the location of Sambangalou and the interconnection

INTERCONNECTION LINE

The 1 677 km-long interconnection line crosses the four OMVG countries: Guinea, Senegal, Gambia and Guinea-Bissau. The interconnection will supply the four member countries with power generated by Sambangalou and Kaleta facilities and other power plants in the OMVG/ECOWAS zones.

The population of the interconnection study area is estimated at 3 347 303 inhabitants, shared between Guinea (1 850 078 inhab.), Senegal (989 187 inhab.), Gambia (308 906 inhab.) and Guinea-Bissau (199 132 inhab.). Most of the project-affected persons live in rural areas on agricultural, livestock and handicraft production.

In Senegal

The projected transmission line in Senegal will cross Tambacounda, Kaolack and Kolda Regions. Specifically, in each of these regions, it will cross the departments, urban communes, districts and rural communities (CR) presented in the table below:

| REGION | DEPARTMENT | DISTRICT | RURAL COMMUNITY/COMMUNE |
|---------------|------------------|----------------------|-------------------------|
| TAMBACOUNDA | Kédougou | Bandafassi | Bandafassi |
| | | | Tomboronkoto |
| | Tambacounda | Koumpentoum | Bamba Ndiayene |
| | | | Koumpentoum |
| | | | Maleme Niani |
| | | Koussanar | Koussanar |
| | | | Sinthiou Malene |
| | Maka Coulibatang | Ndoga Babacar | |
| | Missirah | Dialakoto | |
| | | Missirah | |
| Netteboulou | | | |
| KAOLACK | Kaffrine | Birkilane | Birkilane |
| | | | Mabo |
| | | | Ndiognick |
| | | Maka Yop (Koungheul) | Ida Mouride |
| | Maka Yop | | |
| | Saly Escale | | |
| | Maleme | Kahi | |
| | | Maleme Hoddar | |
| | Nganda | Kathiotte | |
| | | Nioro du Rip | Kayemor |
| Médina Sabakh | | | |
| Ngayene | | | |
| KOLDA | Sédhiou | Boukiling | Diaroumé |
| | | | Ndiamacouta |
| | Tanaff | Sakar | |
| | | Karantaba | |
| | | Simbandi-Brassou | |
| | | Tanaff | |

Source: Administrative map of Senegal

It should be noted that in all the regions, only a tiny part of the territory will be affected by the project. The identified districts and rural communities allow for better tracking of the power transmission corridor in each region.

In Guinea

The transmission line crosses two major natural regions from north to south, known as Lower Guinea and Middle Guinea. These major regions include various administrative regions and prefectures partially affected by the transmission line. For the purposes of this analysis, the prefectures taken into consideration are those with a relatively large part of the territory affected by the project. The administrative regions and prefectures considered are shown in the table below:

| AREA | REGION | PREFECTURE |
|--------------------------------|--------|------------|
| MIDDLE GUINEA (MOYENNE GUINÉE) | Labé | Mali |
| | | Labé |
| | Mamou | Pita |
| | | Mamou |
| | | Dalaba |
| LOWER GUINEA (BASSE GUINÉE) | Kindia | Kindia |
| | | Dubréka |
| | Boké | Bofa |
| | | Fria |
| | | Boké |
| | | |

Source: Administrative Map of Guinea.

In Guinea Bissau

The power transmission line will pass through three provinces in Guinea-Bissau, namely the Northern, Eastern and Southern Provinces. In the provinces, the project will affect Oio, Bafatá and Tombali Regions respectively. More specifically, in each of these regions, the transmission line will cross the sectors shown in the table below. The transmission line will end at the point of entry into the Bissau Autonomous Sector (BAS).

| PROVINCE | REGION | SECTOR |
|----------|---------|------------|
| NORTH | Oio | Farim |
| | | Bissora |
| | | Mansaba |
| | | Mansoa |
| | | Nhacra |
| EAST | Bafatá | Bambadinca |
| | | Xitole |
| SOUTH | Tombali | Quebo |
| BISSAU | Bissau | Bissau |

Source: Administrative Map of Guinea-Bissau.

In Gambia

The power transmission line will pass through three divisions in Gambia, namely the Western, Lower River and North Shore Divisions. These divisions correspond to the local government regions of Brikama, Mansakonko and Kerewan respectively. Within these divisions, the line will cross the 11 districts identified in the table below:

| DIVISION | DISTRICT |
|--------------------|----------------------|
| WESTERN | Kombo Central |
| | Kombo East |
| | Kombo South |
| | Foni Brefet |
| | Foni Bintang-Karenai |
| | Foni Kansala |
| | Foni Bondali |
| | Foni Jarrol |
| LOWER RIVER | Kiang Central |
| | Kiang East |
| | Kiang West |
| | Jarra West |
| NORTH BANK | Upper Baddibu |

Source: Administrative Map of Gambia.

II. POTENTIAL IMPACTS

SAMBANGALOU HYDROELECTRIC PLANT

During the construction phase, the major negative impacts on the human environment concern the displacement of the communities of the reservoir area, implications for the health of these communities and the workers, loss of farmland and lack of means of crossing the river in the dry season.

For the Guinean portion of the reservoir, which will cover an area of 149 km², a population of about 1,130 people will be moved from 8 villages of Mali Prefecture (Labé Region). Regarding the Senegalese portion spanning an area of 32 km², a population of about 200 people will need to be moved from 3 villages in Fongolembi and Bandafassi Departments (Kédougou Region). As for the construction of the 24 km-long access road in Kédougou on the right bank of the river and a floating bridge on the Gambia in Kédougou, it will entail the displacement of about 106 people.

Impacts concerning the displacement of communities are as follows:

- Loss of productive land (farmland and pasture);
- Potential loss of income for displaced persons;
- Loss of public goods, cultural and religious heritage;
- Potential loss of social identity and social dislocation;
- Disruption of the activities of the displaced men and women and host communities;
- Lack of natural resources in the vicinity of host sites;
- Exclusion of vulnerable persons from the project benefits;
- Potential increase in the workload of women and children; and
- Potential psycho-social trauma (loss of sense of belonging and/or feeling of insecurity).

The following risks were identified:

- Potential losses for women relating to the compensation criteria and/or mechanisms if the right of use is not taken into account in the compensation process and if the access of women and heirs to land is limited;
- The main risks faced are: the possible inability of local authorities and institutions to manage resettlement and development activities;
- Risk of food shortage and increased malnutrition; and
- Potential insecurity during the displacement and resettlement process.

During the operational phase, the negative impacts of the Sambangalou project will relate to health, especially in terms of water-borne diseases, as well as to accidents and drowning, decreased fishing yields downstream of the dam and loss of natural resources used by the communities.

Moreover, the adoption of environmental and social management measures and the development of the communities created by the dam construction should result in a number of positive impacts: improvement in the living conditions of the displaced population; improvement in the accessibility of the project area; creation of job opportunities and improvement in incomes; development of fishing; creation of farmland; improvement in infrastructure and creation of new services.

INTERCONNECTION LINE

Regarding the interconnection line, at the current stage, the final route has not been determined precisely. The area reserved for the installation of the line avoids the most sensitive sites, and will be helpful in determining a final route entailing very little or no physical displacement.

For now, no survey has yet been conducted to identify and record losses. However, loss assessment was established from analysis of satellite images produced on scale of 1:700 000, making it possible to identify the major classes of land use. The corridor of the interconnection line mainly runs through agricultural areas where there are no buildings or large trees.

In order to reduce the negative impacts to the strict minimum, the following measures are envisaged: (i) In the savannah or very thinly wooded zone, the right-of-way of the 225-kV single-circuit and double-circuit lines is 40 m wide; (ii) In the wooded zone, after pylon distribution, if required, the width of the right-of-way will be adjusted to minimize the felling of trees, while providing a safety clearance that meets the installation and maintenance requirements (revised from 40 m to 30 m and even 20 m); (iii) For each of the 15 sub-stations, an area of 250 m x 300 m was provided within which the sub-station will be built. This area constitutes a right-of-way reserved exclusively for the electrical equipment of the sub-station, complemented by a buffer zone.

On this basis and at this stage, the identified residual impacts are as follows:

- On the biophysical environment, the only identified impacts, requiring environmental monitoring, is the deforestation in classified forests. The planned compensation measure is the implementation of reforestation within these highly classified forests. For other elements of the natural environment, those affected by the project are not particularly sensitive to the passage of a power line and those that could be have been avoided (national parks, for example) or are protected by appropriate measures (wetlands);

- On the human environment, the impacts mainly concern the farming areas whose surface area under the line is estimated at around 2 000 ha. During the construction phase, the damage to the soil will lead to partial or total crop losses for some households. During the operational phase, the permanent loss of farmland will be limited to areas under pylons or occupied by sub-stations, and those destroyed by the construction of permanent access roads.

The exact identification of the various types of losses will be conducted concurrently with the implementation studies of the selected companies, according to the following stages: (i) issue of decrees relating to declaration of public interest (DUP) - May 2015; (ii) implementation study – as from June 2015; (iii) evaluation of assets based on field surveys – as from June 2015; and (iv) indemnification and compensation – as from July 2015.

III. ORGANIZATIONAL RESPONSIBILITY

The organizational responsibility for implementation of environmental and social measures of the power project involves four categories of players: the contracting authority; the contractor; and the operators and administration of the States responsible for environmental and social safeguards. The table below shows the composition of the agencies involved in the implementation of the resettlement plan (RP) and the environmental and social management plan (ESMP).

| Agency | Internal Organization | Role |
|--|---|--|
| Gambia River Basin Development Organization (OMVG) | <ul style="list-style-type: none"> - Executive Secretariat responsible for supervising the power project and ensuring overall socio-environmental coordination - Department of Studies, Planning and Infrastructure - Department of Agriculture - Administrative and Financial Department | <ul style="list-style-type: none"> - Project owner - Supervision of PMU through monitoring of its performance contract - Approval of RP and ESMP programmes and budgets |
| Project Management Unit (PMU) | <ul style="list-style-type: none"> - An Environmental Unit - A Technical Management Unit - An Administrative and Financial Management Unit - Based in Dakar | <ul style="list-style-type: none"> - Day-to-day monitoring of implementation of RP and ESMP measures - Coordination, planning and proper implementation of project components - Monitoring-evaluation and control of activities - Administrative, financial and accounting management - Support to OMVG for launching of competitive bidding and contract awards - Secretariat of the Project Monitoring Advisory Committee (CCS). |

| | | |
|---|---|--|
| Monitoring Advisory Committee (CCS) | <ul style="list-style-type: none"> - Actors involved in the project: NGOs, experts, ministries, public agencies, technical and financial partners, etc. - Actors. | <ul style="list-style-type: none"> - Participatory and consultative role - Coordination, focus and monitoring of project activities |
| Technical Assistance for Project Owner (ATMO) | <ul style="list-style-type: none"> - International recruitment - Based in Dakar | <ul style="list-style-type: none"> - Contribution to establishment of PMU and building of its monitoring-evaluation capacity. |
| National Monitoring Committees (CNS) | <ul style="list-style-type: none"> - Chaired by the Head of the National OMVG Unit - Ministry in charge of Energy - Ministry for the Interior - Ministry in charge of Local Government - Ministry in charge of Finance - Ministry in charge of the Environment - Ministry in charge of Agriculture - Ministry in charge of Lands - National Electricity Corporation - Project Team (permanent staff): a team leader, an officer in charge of relations with government services/communication, an accountant, a Secretariat | <ul style="list-style-type: none"> - Monitoring and supervision of field activities - Administrative facilitation - Monitoring and implementation of environmental and social aspects |
| Local Coordination and Monitoring Committees (CLCS) | <ul style="list-style-type: none"> - Permanent staff: a facilitator, a communication officer, a secretariat, and an assistant accountant - Other participants, according to the problems: representatives of project-affected persons, representatives of local authorities, representatives of government services, development projects, private institutions and NGOs, and Territorial Administration | <ul style="list-style-type: none"> - Relationship between the project and the local population - Management of disputes and complaints - Monitoring of implementation of development measures - Monitoring the population's acceptance of the measures implemented: compensation, indemnification, resettlement, consultation, information, advocacy, and dispute management |
| Engineering Consultant (IC) | <ul style="list-style-type: none"> - Technical engineers - Officer in charge of environmental and social issues - Offer in charge of hygiene and safety - Field inspectors | <ul style="list-style-type: none"> - Control, supervision and monitoring of the construction of the interconnection and Sambangalou structures - OMVG representation in dealings with contractors |
| Operators | <ul style="list-style-type: none"> - Private institutions and NGOs - Entrepreneurs - Consulting Firms - Local population (farmer cooperatives, associations, etc.) | <ul style="list-style-type: none"> - Implementation of measures to mitigate negative impacts, as well as enhancement measures |
| State Services | <ul style="list-style-type: none"> - Services responsible for environmental and social monitoring of projects - Other services depending on the issues at stake | <ul style="list-style-type: none"> - Monitoring of proper implementation of the ESMP and RP |

IV. COMMUNITY PARTICIPATION / PUBLIC CONSULTATION

SAMBAGALOU HYDROELECTRIC PLANT

The people were consulted as part of feasibility studies in 2002 and throughout the conduct of environmental and social assessment from November 2005 to February 2006 and during the update of the environmental documentation in August 2014. These consultations were complemented by those held between December 2014 and February 2015, which included the residents of host villages. There has been little change in the people's expectations and concerns over this period:

The expectations of the local population are: access to electricity; employment opportunities at the site; opening of roads and improvement of the area's accessibility; construction of local schools offering complete primary cycle to enable children to study with ease; construction and equipment of health posts for easy access to health care; construction of boreholes for drinking water; poverty reduction; development of fishing; and development of new activities.

The concerns of the local population are: loss of farmland; loss of homes; displacement and resettlement of people; loss of socio-economic infrastructure; fears about the compensation and resettlement process, especially among people who had anticipated their displacement, and consequences of the delayed start-up of the project; fear of not having enough clean water once resettled; fear of not being adequately compensated and not being able to maintain the same standard of living; and impacts on the natural environment.

The consultations also helped to identify the population's preferred options regarding compensation and indemnification.

They were also helpful in clarifying the choice of resettlement sites. The main options discussed focused on the following points: (i) Compensation conditions; (ii) Building type; (iii) Spatial organization of villages; (iv) Resettlement sites; and (v) Compensation for sacred sites.

The project-affected persons (PAPs) consulted agreed that the loss of land (residential plots and farmland) incurred due to the filling of the reservoir should be compensated for, preferably in kind; however, the possibility of receiving compensation in cash will be considered if the situation so warrants (e.g. total change of activity or place of living).

From the results of the technical studies for the final selection, host sites will finally be selected after consultation with representatives of the affected communities. These are the sites that will be presented to PAPs to enable them to select their resettlement site.

During the construction phase, the following arrangements will be made to inform people:

| ACTIVITIES | PROJECTED PERIOD | SCOPE |
|---|------------------------|---|
| Establishment of information points within Local Coordination and Monitoring Committees (CLCS) | July 2015 | Local |
| Circulation of copies of the environmental and social documentation within the CLCS | July 2015 | National / regional / local |
| Update of the environmental and social (E&S) documentation based on individual public surveys of PAPs | July 2015 | International / national / regional / local |
| Announcement in the national press and local audio-visual media concerning the start of the compensation process and population displacement | August 2015 | National / regional / local |
| Local radio/TV broadcasts on the start of works and the procedure for getting access to the jobs created by the site | September 2015 | National / regional / local |
| Nationwide dissemination and online posting of monitoring reports of the E&S expert panel in charge of monitoring the construction of the dam and power transmission line | 2015, 2016, 2017, 2018 | International / national / regional / local |
| Periodic consultation of the population, on an informed basis, regarding the implementation of E&S measures of the Resettlement Action Plan (RAP) and ESMP | 2015, 2016, 2017, 2018 | Regional / local |

Consultations will continue once the population is displaced to ensure that resettlement is carried out under satisfactory conditions and that the support measures actually help to improve living conditions. The monitoring arrangements are as follows: conduct of socio-economic surveys, and communication activities targeting the population. These activities will be complemented by the establishment of a mechanism for managing complaints and monitoring indicators related to the socio-economic situation of the area.

INTERCONNECTION LINE

At the completion of the feasibility and ESIA study, institutional consultations were conducted by COTECO Firm.

Under the partial land investigations conducted in 2014 for sub-stations, consultations were held with PAPs in the presence of local authorities. The challenges of the project, its impacts and the principles adopted in respect of compensation and indemnification were presented to the local population. Overall, they welcomed the project, but had a major concern regarding the terms of payment of compensations.

Provisions similar to those relating to the Sambangalou scheme will also be adopted for the study on the construction of the interconnection line.

It should be noted that the World Bank, which is co-financing only the interconnection line, published the environmental and social document on its website in 2014. (<http://www.worldbank.org/projects/P146830?lang=en>).

V. INTEGRATION WITH HOST COMMUNITIES

SAMBAGALOU HYDROELECTRIC PLANT

To facilitate full integration with host communities, the following measures will be taken: (i) Consultation with host villages; (ii) Compensation of host villages; (iii) Implementation of a development programme.

Consultation with host villages is underway. There have been several informal discussions between the displaced and villages hosts. To validate the agreements between villages, the discussions will be formalized under the supervision of the local authority and will be contained in a document signed by the three parties. The main concern centred on conflict prevention. In that regard, an agreement would be formally established between the villages containing at least the following information: demarcation of the areas provided to the displaced population, terms of use of space and any pooled infrastructure, and measures for compensating the host population.

The compensation of host villages for public goods was assessed with the aim of pooling infrastructure with these villages. Precise identification of the needs of host communities is also underway and will eventually help to adjust the proposed compensation for public goods. Depending on the distances and type of relationships that the villages will forge, infrastructure could be pooled or otherwise.

Development measures are an essential component of integration with host communities. Significant differences may appear in terms of the quality of the habitat. However, it is important to ensure that socio-economic development is uniform throughout the area hosting the displaced villages.

The measures could be considered as a development project with various components aimed at:

- supporting development planning (one measure);
- ensuring economic development based on sustainable management of natural resources (10 measures); and
- ensuring socio-cultural development (2 measures).

As regards the Sambangalou project, the key development measures are as follows:

- Local development planning: the measures proposed by the Sambangalou project must comply with the Local Development Plan (PDL), or be integrated with the PDL after validation by Rural Communities (CR) and Rural Development Committees (CRD). Since the Sambangalou project will profoundly change the local context, it is advisable to have the PDL assessed accordingly so that local authorities may have up-to-date planning documents;
- Agro-sylvo-pastoral development: The purpose of this measure is to encourage the practice of sedentary agriculture instead of shifting cultivation by improving subsistence farming through crop diversification and promotion of fruit-tree planting and agroforestry on the deep soils of hillsides;
- Improvement of family agriculture: The aim of this measure is to improve rain-fed crop yields and thus increase production on areas equivalent to those currently cultivated;

- Perennial crops and plantations: This development programme is designed to restore, as much as possible, production and income derived from fruit growing, forest plantations/nurseries and forest-product gathering;
- Action research in agriculture: The goal of this development programme is to gradually build sustainable production systems for key activities in the project area: rain-fed cropping on hillsides and forest exploitation. At the end of the support provided to the resettled communities, they will have adopted and mastered such techniques as the practice of short-term fallowing and agroforestry;
- Improvement of family livestock production: The programme seeks to increase incomes through small livestock rearing (small ruminants and poultry), which may thus compensate for the loss of income related to other activities also practised by women; and
- Generation of farm-related incomes: The objective of this programme is to capitalize on the new market opportunities and help maintain and increase family incomes by expanding and improving post-harvest activities, at both family and group levels.
- Improvement of fishing as a secondary activity: This programme aims to develop fisheries resources created by the future reservoir. It will include support for the purchase of nets and plank canoes - a measure desired by fishermen met on the site - training of village neophytes and establishment of rules governing fishing activities on the lake;
- Development of handicraft and support for reconversion: This programme aims to support craftsmen in the study area who use antiquated techniques and risk being superseded by the better equipped and better trained immigrant craftsmen, in a context where the inflow of development support, immigration and construction programmes will lead to increased demand for services and products;
- Maintaining social harmony: The development activities envisaged under the resettlement plan (RP) require the building of producers' capacities in terms of organization into groupings, reading, writing and numeracy for adults, through a functional literacy programme;
- Human capacity building: The aim of this programme is to maintain, as much as possible, intra-family, intra-community and inter-community harmony during the displacement despite immigrant influences;
- Strengthening of rural services: This programme aims to support input supply, marketing and microfinance;
- Land security: The formal security of land tenure rights, as well as those of land use, is a prerequisite for ensuring sustainable management of natural resources throughout the sub-region.

VI. SOCIO-ECONOMIC STUDIES ON AFFECTED PERSONS

SAMBAGALOU HYDROELECTRIC PLANT

The population density in the area around the proposed dam is low. The 10 villages that need to be moved have a total population of 1 436 people, including 733 women, grouped in 180 households. The 10 villages subject to displacement and resettlement are: Sambangalou/Niambara; Néoudou; Diaré; Parabanta, Moussouly Koto, Missira, Tiéwiré, Souléré, Tembougouidaré, and Doundou Saara. The distribution of households per village is presented in the table below.

Population and Households

| Country | Department/ Prefecture | District/ Sub- Prefecture | Villages and <i>Hamlets</i> | Number of Households | Population |
|--------------|---------------------------|------------------------------|----------------------------------|-------------------------|--------------|
| | | | Name | | |
| Senegal | Kédougou | Fongolembi | Sambangalou / <i>Niambara</i> | 22 | 141 |
| | | Bandafassi | Néoudou | 24 | 193 |
| Guinea | Mali | Balaki | Diaré | 11 | 98 |
| | | | Parabanta | 10 | 72 |
| | | | Moussouly Koto | 7 | 27 |
| | | Lébékéré | Missira | 24 | 234 |
| | | Mali-Centre | Tiéwiré | 46 | 348 |
| | | | Souléré | 13 | 100 |
| | | | Tembougouidaré | 12 | 99 |
| | | | Doundou Saara | 11 | 124 |
| Total | | | | 180 | 1 436 |

Generally, the population is increasing. In some villages, however, the number of households has declined, especially in Sambangalou and Niambara where part of the population anticipated the resettlement and moved to other villages.

The population of the displaced villages is young, with youths under 20 accounting for 60% of the total. The Peulhs make up the main ethnic group; the villages are generally mono-ethnic. Among the displaced villages, Missira stands out with a population essentially composed of the Mandingo, Sarakholé and Djakhanké ethnic groups.

The level of education is low and the illiteracy rate stands at 90% for men and 98% among women. The main causes of morbidity are malaria and acute respiratory infections.

The household head is usually a man and one in two households is polygamous.

There are no indigenous or minority populations in the dam's impact area; however, several households are considered vulnerable.

Households considered vulnerable were identified on the basis of the following criteria: Female heads of household; heads of households aged over 60; people with disabilities; and people with chronic illnesses. Based on these criteria, 55 vulnerable households were identified, representing 31% of the total number of households. The table below shows the number of households per village, distinguishing three levels of vulnerability depending on the cumulative criteria:

| VILLAGES | Female heads of household | Heads of household aged over 60 years old | Persons with disabilities | Persons chronic illness | TOTAL |
|-----------------|---------------------------|---|---------------------------|-------------------------|--------------|
| TOTAL | 21 | 24 | 10 | 0 | 55 |

To control the project impacts on the vulnerable population, the following measures will be implemented: (i) specific provisions adopted during the consultations identified vulnerable households and will be monitored specifically by dedicated staff; (ii) material assistance (provision of a vehicle) to move displaced persons who cannot afford to move on their own; (iii) a one-time food assistance during the resettlement period; (iv) a one-time cash assistance during this period to allow mainly for the hiring of labour to perform some physical work; and (v) facilitate access to medical care.

In the 10 villages to be displaced, there are a total of 506 residential houses, 345 toilets / showers, 218 kitchens, 101 animal pens, 113 chicken coops, 150 barns and other fixed structures such as warehouses, latrines, tombs, wells, entrance enclosures and ovens. In most cases, the houses are built of mud-bricks, *banco* (a mixture of mud and straw) and straw. The other buildings are also constructed with traditional materials.

The average cultivated area per household is 4.47 ha. Lowland farming accounts for 12% of cultivated areas, and was identified in 5 of the 10 villages.

The area of farmland available to the resettled villagers was also estimated based on the population census survey. The needs in terms of fallow land in the study area were estimated at three times the area used for slash-and-burn farming.

Surface areas of village farmland in the reservoir area

| Village / Hamlet | Farmland (ha) | | |
|-------------------------|-------------------------------|------------------------|--------------|
| | Slash-and-burn Farming | Lowland Farming | TOTAL |
| TOTAL | 707.6 | 96.6 | 804.2 |

Source: Population census for the reservoir area, MSA / Oréade-Brèche, August 2014.

The main crops grown in the area are, in order of importance, groundnuts, maize, fonio, millet and rice.

Regarding farmland situated on the layout of the access road, it is estimated that about 2.5 ha of farmland and its crops will be lost, requiring compensation. This preliminary assessment will be validated during the update of the land ownership statement. The affected farmland extends from National Road 7 (RN 7) to the planned bridge on the river, with few farmland areas located just south of this bridge.

The total number of identified trees is about 5 000.

Public infrastructure is limited in the villages listed. In the whole area, there are only four schools, one health hut, nine water points, seven mosques, and 10 cemeteries (exhumation/burial). The communication lines are poorly developed, and the villages are not easily accessible.

The main activity in the area of the future reservoir is agriculture. Overall, land is available and the area is vast and sparsely populated. Most of the land is managed on a community basis,

according to customary law. Stockbreeding is a form of savings on-the-hoof. In addition, it serves a function and the animals are also used for animal traction and their dung as manure in *tapades*. Forest product gathering is relatively widespread and more particularly concerns *nééré* (*monkey bread*), shea and non-food products. The other activities (fishing, hunting, trade and handicraft) are less developed.

Very wide income disparities are observable depending on the households and activities considered. The average annual household income is estimated at CFAF 872 257, which corresponds to an average per capita income of CFAF 109 336. The highest annual income per household is about CFAF 19 million and the lowest is equal to CFAF 7 500.

LINE INTERCONNECTION

From an initial analysis of satellite images, a rough assessment was made of farmland and pastures that will be affected, requiring replacement with other land or monetary compensation. It was estimated that about 30% of the transmission line will cross farmlands. Given that the total length of agricultural or pastoral land crossed by the line is estimated at 510 km and that the right-of-way is 40 metres wide, the total agricultural land taken up by the right-of-way stands at 2 040 ha. To this should be added the areas taken up by the construction of access roads which, like those lost to the transmission line, will be calculated as the work progresses.

Regarding the sub-stations, land investigations were conducted in 2008 and updated in August 2014. The investigations identified the affected agricultural plots and houses, and made an initial assessment of compensation. Of all the affected persons identified, only one had a land title (Bissau sub-station).

Structures were also identified within the right-of-way of a number of sub-stations, but these were only individual property, residential houses for the most part.

The table below summarizes all the property identified in the seven sub-stations located in farmlands or near homes. The other sub-stations are located in uninhabited areas.

*Table 1
Private property identified along the interconnection line*

| Sub-Station | Annual Crops | | Fruit Trees | | Homes | |
|-------------|--------------|----------------|-----------------|----------------|-------|----------------|
| | Area (ha) | Number of PAPs | Number of trees | Number of PAPs | Unit | Number of PAPs |
| Boké | 0.5 | 1 | 0 | 0 | 0 | 0 |
| Labé | 1.2 | 4 | 0 | 0 | 3 | 3 |
| Mansoa | 0 | 0 | 1 422 | 3 | 0 | 0 |
| Bissau | 0 | 0 | 0 | 0 | 0 | 0 |
| Bambadinca | 0 | 0 | 1 510 | 4 | 0 | 0 |
| Saltinho | 0 | 0 | 966 | 6 | 0 | 0 |
| Tanaff | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | | | | | |

Source: Population census for the reservoir area, MSA / Oréade-Brèche, August 2014.

Farmland and homes affected by the interconnection line may therefore be finally presented as follows:

Under the line

- 6.52 hectares of farmland and grazing land lost permanently under the pylons;
- 2 040 ha of farmland and grazing land within the right-of-way of lines and between the pylons. These areas might possibly be subject to loss of agricultural income if construction works clash with cropping calendars;
- Fruit trees.

Under the sub-stations

- 1.7 ha of cultivated farmland lost permanently under the sub-stations;
- 3 households with homes that will be identified during implementation studies;
- Plantations of fruit trees, particularly cashew trees.

As regards land for compensation, the permanent loss of 8.22 ha of farmland and grazing land may therefore be envisaged, requiring compensation in kind.

Land loss due to the construction of access roads is also to be expected. However, at this stage of the project, nothing is known about the location, number or length of the access roads. On the other hand, as regards compensation for land ownership, it is very likely that those using land affected by access roads have no official title deeds. Therefore, no monetary compensation is envisaged for the replacement of land affected by access roads. However, the lost land will be replaced by other pieces of land, probably State-owned land requiring no expropriation and for which no costs would be incurred.

VII. LEGAL FRAMEWORK, INCLUDING DISPUTE RESOLUTION AND APPEAL MECHANISMS

The legal framework consists of key environmental and social legal provisions enacted by the Governments of Guinea, Senegal, Gambia and Guinea-Bissau. It also comprises applicable international conventions to which the three countries have acceded.

✓ IN GAMBIA: State Land Regulations define the rules governing the allocation of State lands for agricultural purposes, and provisions relating to the demarcation and management of forest areas, “green belts” and “buffer zones”. The right to property is protected by Section 22 of Chapter 4 on the Protection of Fundamental Rights and Freedoms of the Constitution of the Second Republic of Gambia, which was adopted on 8 August 1996, entered into force in January 1997, and whose last amendment dates from 2001. When this right is violated under the conditions provided by the legislation in force, the Land Acquisition and Compensation Act (1990) and the State Lands Act (1990) constitute the legal framework for population resettlement.

✓ IN GUINEA: The Code on Private and State-owned Land determines the rules of land acquisition by private persons and determines State-owned land and land belonging to other public entities. It also specifies the terms and conditions for human rights protection, particularly by organizing the process for land registration and the registration of rights in rem. The new Federal Code on Private and State-owned Land provides that, besides the State, other natural and legal persons may hold property rights on land and the buildings erected thereon. The Code on Private and State-owned Land provides precisely for the case of restriction of property ownership rights. Thus, restrictions on property ownership rights will stem from: (i) expropriation for public purposes; and (ii) establishment of public easements. The system of expropriation in the public interest is also defined by the Code on Private and State-owned Land. The provisions are relatively conventional. Expropriation is subject to fair compensation paid in advance by mutual agreement and, failing this, by court decision. The expropriation procedure occurs in three phases: (i) administrative: investigation; declaration of public utility; deed of transferability; notification; identification of tenants and property rights holders; etc.); (ii) amicable; and (iii) possibly judicial. The timeframe for the conduct of the expropriation is always indicated and may not exceed three years.

✓ IN GUINEA-BISSAU: The resettlement framework in Guinea-Bissau is provided by *Lei da Terra* No. 5/98 (Law No. 5/98 of 23 April 1998). This law defines the legal framework for expropriation and compensation in Guinea-Bissau. It enshrines customary rights to land-use with a number of innovations. Under this law, the State may expropriate for reason of public welfare. Expropriation is carried out under the conditions provided by the *Lei da Terra*, and compensation is based on the market value principle with no allowance for depreciation. This law provides also for the establishment of land commissions to ensure implementation of this law and coordination between the various levels of intervention in land-use.

Guinea-Bissau's land law is in line with international standards in almost every respect. The major difference between national legislation and international standards is the legal obligation of economic rehabilitation. Thus, even though the legal framework for expropriation and rehabilitation is based on Guinea-Bissau's legislation, the higher of the two standards will apply in the event of discrepancies, since the higher standard automatically meets the requirements of the other standard.

✓ IN SENEGAL: Senegal's Constitution of 7 January 2001 (Article 15) guarantees the right to property ownership. In this country, land tenure regulation is based on Law No. 64-46 of 17 June 1964 organizing the management of the landed property sector. Land is divided into three categories: (i) national land, which consists of land that is not classified in the public domain, not registered or whose ownership has not been recorded with the Deeds Registration Office; (ii) State land, which comprises public and private lands, refers the State's rights in and ownership of movable and immovable property; (iii) private land refers to land registered in the name of private individuals.

Regulations on expropriation in the public interest are based on Law No. 76.67 of 2 July 1976 and Implementation Decree No. 77.563 of 3 July 1997. Law No. 76-67 defines the expropriation procedure by which the State may, in the public interest and subject to fair and prior compensation, as well as in accordance with the Constitution of 7 January 2001, constrain any person to surrender ownership of privately owned moveable or immovable property. This law constitutes the legal basis of displacement and compensation procedures. The usual procedure for expropriation in the public interest comprises: (i) an administrative phase (investigation, declaration of public interest, transferability statement and conciliation) which may, failing an amicable agreement, lead to: (ii) a judicial phase during which the transfer of ownership is decided by the judicial authority concurrently with the compensation amount. Despite the absence of a displacement and compensation policy framework, it must be acknowledged that in Senegal there are mechanisms for the resettlement of communities, particularly in terms of restructuring and land regularization.

AFRICAN DEVELOPMENT BANK (AfDB) POLICIES ON INVOLUNTARY DISPLACEMENT OF PEOPLE: Operational safeguard 2 - involuntary resettlement concerns AfDB-financed projects that cause involuntary resettlement of people. It results in: (i) Relocation or loss of shelter by people residing in the project-impact area; (ii) Loss of assets (including loss of structures and assets of cultural, spiritual, and other social importance) or restriction of access to assets, including national parks and protected areas or natural resources; and (iii) Loss of income sources or means of livelihood as a result of the project, whether or not the people affected are required to move. The specific objectives of this Operational Safeguard are to:

- Avoid involuntary resettlement where feasible, or minimize resettlement impacts where involuntary resettlement is deemed unavoidable after all alternative project designs have been explored;
- Ensure that displaced persons are meaningfully consulted and given opportunities to participate in the planning and implementation of resettlement programmes;
- Ensure that displaced persons receive significant resettlement assistance under the project, so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved beyond pre-project levels;
- Provide explicit guidance to borrowers on the conditions that need to be fulfilled regarding involuntary resettlement issues in Bank operations to mitigate the negative impacts of displacement and resettlement, actively facilitate social development and establish a sustainable economy and society; and
- Guard against poorly prepared and implemented resettlement plans by setting up a mechanism for monitoring the performance of involuntary resettlement programmes in Bank operations and remedying problems as they arise.

✓ **CONSISTENCY BETWEEN THE LEGAL FRAMEWORK OF THE FOUR COUNTRIES AND AfDB PROCEDURES:** The main points on which AfDB policies require going beyond the national regulations of the four countries concerned are:

- Priority of compensation in kind over cash compensation, especially for land where the “land-for-land” option should be preferred where feasible;
- Compensation for full replacement value, where cash compensation is to be applied (fruit trees and houses);
- Support for the restoration of income and livelihoods (farming, fishing, stockbreeding, forest product gathering, handicraft);
- Compensation for commercial and handicraft activities;
- Participation of affected persons in the entire resettlement process; and
- Monitoring and evaluation, including support measures (training, technical support, subsidized loans, etc.).

✓ **MANAGEMENT OF COMPLAINTS AND DISPUTES:** In practice, complaints and conflicts that arise during the implementation of a resettlement and compensation programme may be the following: errors in property identification and assessment; disagreement over land boundaries either between the affected persons and the expropriation agency or between two neighbours; conflict over property ownership (two or more affected persons claiming ownership of the same property); disagreement on the assessment of a plot of land or other property; inheritance, divorce and other family issues, resulting in conflicts between heirs or members of the same family, over the ownership or partial ownership of a given property; disagreement on resettlement measures, for example, the type of proposed housing or the characteristics of the resettlement plot.

In addressing complaints, preference could be given to the following extra-judicial channels: (i) additional explanations (e.g. explain in detail how the project calculated the complainant's compensation and show that the same rules apply to all); (ii) arbitration, involving elders or persons respected in the community, while being from outside community.

Each affected person, while obviously maintaining the option of seeking redress before the courts of his/her country, could appeal to this mechanism, which will comprise two main steps: (i) registration of the complaint or dispute by the project manager; and (ii) amicable settlement with the help of mediators independent from the project.

The project will use National Monitoring Committees (CNS), as well as Local Coordination and Monitoring Committees (CLCS) also responsible for conflict management and mediation in population displacement.

After a complaint has been registered, the complainant(s) will be summoned to appear before the Mediation Committee, which will attempt to propose a solution acceptable to both parties. If necessary, additional meetings will be organized and the Committee may appoint one of its members to continue the arbitration in a less formal setting than the monthly meetings. If no agreement is reached, the parties may resort to the courts. To facilitate access by PAPs to the legal process, the expropriation judge will sit in the chief-town of the Department or Prefecture where the complainant resides. The PMU will assist vulnerable PAPs in order to facilitate their access to legal services on a pro bono basis with the help of NGOs. Furthermore, the settlement of a dispute cannot delay the displacement of a community as that would unduly slow the project implementation process. It is therefore envisaged that if a dispute goes to court and the latter cannot hand down its decision prior to the displacement date, the affected person who appealed his/her case will be compensated according to the decision of the expropriations judge, but that an adjustment will be made after the displacement if the court so decides.

VIII. INSTITUTIONAL FRAMEWOK

The institutional framework for implementation of the resettlement plan consists of OMVG, the Delegated Project Manager, and the Government service responsible for environmental and social monitoring.

The current OMVG team is enough to meet the needs of the activities of the study phase. Significant capacity building initiatives have been scheduled to provide OMVG with the staff and material resources required for implementation of the project. These capacity building initiatives are as follows:

- Establishment of a Project Management Unit (PMU): The PMU environmental team, in addition to the technical assistant responsible for the environmental unit, will include four country counterparts (an environmentalist, two resettlement experts and a monitoring and evaluation expert);
- Establishment of a National Monitoring Committee (CNS) in each member country. The CNS will include the key Ministries involved in project implementation in the country and national electricity companies. They will have a dedicated project team reporting directly to the head of the national unit;
- Establishment of Local Coordination and Monitoring Committees (LCMC) at local level. They will consist of the following staff: a facilitator and a part-time secretary, a communication officer and a full-time administrative/accounting officer.

Although the OMVG Council of Ministers decided to entrust the management to the Project Management Unit (PMU) located within this four-nation regional body, OMVG will work closely with the competent services of these four countries:

- ✓ IN GAMBIA: Gambia's institutional mechanism on expropriation is managed by the Ministry of Local Government and Lands. This body is supported by the Ministry of Natural Resources and the Environment, the Ministry of Agriculture and Local Government (Divisional Headquarters; District Headquarters, and Village Committees). Depending on the needs, other entities may be mobilized.

- ✓ IN GUINEA: Guinea's institutional mechanism on expropriation is under the responsibility of the Ministry of Urban Development and Housing. It is supported by the Ministry of Environment, Water and Forests, the Ministry of Agriculture and Livestock, and the Local Government (Rural Development Communities - CRD). Other structures may be mobilized as required.
- ✓ IN GUINEA-BISSAU: Guinea Bissau's institutional arrangements on expropriation fall under the responsibility of the Ministry of Social Equipment. This Ministry is supported by the Ministry for the Interior, the Ministry of Environment, the Ministry of Agriculture, Forestry and Livestock, and the Ministry of Natural Resources and Energy (MNRE). Other State or non-State actors may be mobilized as required.
- ✓ SENEGAL: Senegal's institutional arrangements on expropriation fall under the Ministry of the Economy and Finance (MEF) responsible for Land Management and Enforcement of procedures for expropriation in the public interest (ECUP) and the terms and conditions for compensation under Law No. 76-67 of 2 July 1976. The Ministry is supported by the Ministry of the Environment and Nature Protection, the Ministry of Mines and Energy, and the Ministry of Territorial Development and Town Planning. Other entities may be mobilized as required.

All these stakeholders will need to be strengthened through training and logistical support.

IX. ELIGIBILITY

Persons affected by the Sambangalou plant and the interconnection line may be individuals, households or communities. Furthermore, among the affected persons, there are people considered vulnerable who need to be given special attention.

Given that the legislations of Guinea, Senegal, Gambia and Guinea-Bissau recognize formal ownership (with title deed) and customary ownership, any affected person who owns land (legally or customarily) is considered eligible for compensation.

The resettlement arrangements laid down by AfDB Operational Safeguard 2 (OS2) are taken into account by the project.

The deadline for compensation eligibility for the Sambangalou plant is at the end of the period of census of affected persons and their property in the study area conducted in August 2014 by the consultant. Beyond that date, the occupancy and/or use of land or resource affected by the project may no longer be subject to compensation. This date has been clearly indicated to the local population who, through traditional authorities, may help check opportunistic installations. After the census, the people were told that new investments would not be taken into account, but that they should, however, continue their activities until displacement.

Regarding the interconnection, the eligibility deadline will be at completion of the implementation study leading to the identification and census of affected persons on the route finally adopted, that is to say, June 2015.

X. ASSESSMENT AND COMPENSATION FOR LOSSES

SAMBAGALOU HYDROELECTRIC PLANT

✓ COMPENSATION PRINCIPLES AND PROCESS

PAPs will be compensated in cash, in kind and/or in the form of assistance as shown in the table below. The payment of compensation will be managed by OMVG, which will harmonize the approach for the four member countries. Indeed, during the conduct of the environmental and social assessment, the member countries decided to standardize the procedure at regional level. This decision was formalized in a correspondence that the Ministers of the member countries addressed to OMVG.

The following table summarizes the proposed arrangements:

| Impact | Eligibility | Right to Compensation or Resettlement |
|--|--|--|
| Compensation for property and investment (land, structures and buildings) | | |
| Loss of titled land | Be the holder of a valid and registered property title deed | Resettlement on a similar plot, that is to say, having the same dimensions and operating potential and reimbursement of expenses related to the establishment of the land title deed. Or Compensation in cash for the plot at full replacement value, where material constraints do not allow for compensation in kind. |
| Loss of arable and cultivated untitled land | Be the recognized occupant of arable and cultivated land (recognized by customary chiefs, notables and neighbours). Customary “owners” are considered to be occupying land in good faith, and are eligible for the measures described in the section opposite. | No monetary compensation for the plot. Recognized occupants of arable and cultivated land are eligible for resettlement. They will be offered a resettlement option, comprising: <ul style="list-style-type: none"> • Replacement of the buildings found on such land, if applicable (see below); • Replacement of agricultural plots by equivalent land with agricultural potential located within an acceptable distance from the residence of the person concerned. Developments carried out on land are eligible for compensation at full replacement value (for example, clearing, irrigation canals, wells, dykes, tillage of soil, etc.), or replacement on a resettlement plot. |
| Loss of uncultivated land | - Village communities - Stockbreeders | - Compensation at community level, see section on “Natural Resources and Bushes” - Support to find new pastures and new transhumance corridors, support for the intensification of stockbreeding. |
| Loss of building | Case 1: Resident owner recognized as owner by neighbours. | Compensation for the building at full replacement value (market value if it is possible to reach a settlement for such a building, plus relocation allowances). OR Resettlement in a building of equivalent or superior characteristics, and surface, plus relocation allowances. |
| | Case 2: Non-resident owner recognized as owner by neighbours. | Compensation for the building at full replacement value (market value if it is possible to reach a settlement for such a building). |
| | Case 3: Tenant, recognized as tenant by neighbours. | Compensation for moving cost, including: (i) expenses incurred for renting a similar house (three-month rent deposit); and (ii) moving allowances. |

| Compensation for Loss of Income Sources | | |
|--|---|---|
| Loss of crops | Be recognized by neighbours and local authorities as having farmed the crops | Perennial crops: Compensation at full replacement value of the crops in question (taking into consideration the value of the plants, the work required to re-cultivate the crops, and the loss of income during the period necessary to re-cultivate the crops at market value). Annual crops: If the crops are destroyed before they can be harvested, compensation will be paid for the equivalent of a rice crop or the corresponding current value. Trees that do not generate income, except through the sale of firewood: compensation will be granted by providing seedlings and paying for the planting work. |
| Loss of business or handicraft activity | Be recognized by neighbours and the authorities as the operator of the activity | Compensation for loss of income incurred for a six-month period for handicraft, and three months for trading (periods deemed necessary to re-establish the activity on another site), plus support for adaptation to new sites. |
| Change in working conditions | Mainly the case with fishermen and gatherers and, to a lesser extent, stockbreeders | Structural support (training, credit) during the training period and repayment of credit contracted for these professionals to adapt to their new environment, plus compensation for loss of income over a six-month period (the period considered necessary for their adaptation). |
| Employment disruption | Be an employee of a business affected by the relocation. | Temporary indemnities for the transition period corresponding to the moving and reconstruction period. |
| Natural resources and bushes lost | Anyone recognized as deriving income directly from the lost resource | Funding of replacement projects for lost natural resources most commonly used by the affected persons (medicinal plants and roots, etc.). |
| Displacement Indemnities | | |
| Relocation | Be resident and eligible for resettlement. | Support for the cost of moving, preferably in kind (provision of a vehicle to transport personal belongings). |
| Other Forms of Assistance | | |
| Increased vulnerability | Vulnerable persons | Assistance Fund established at CFAF 150 000 per vulnerable person (guaranteed minimum agricultural wage over a period of five months); the Fund will be used for micro-project development to help these people to maintain, if not improve, their living conditions |

✓ **ASSESSMENT AND COMPENSATION FOR GOODS AND INCOME**

a) **Collective Goods**

Public goods for replacement will be fully rebuilt respecting existing dimensions and national sector-based policies. Existing social infrastructure will also be rehabilitated. The cost of replacing all existing collective goods in the localities to be displaced is estimated at CFAF 958 647 000 (EUR 1 463 583).

b) **Loss of land**

Loss of land (residential and agricultural land) incurred due to the impoundment of the reservoir will be compensated for, preferably in kind. PAPs consulted expressed their support for this approach, although the opportunity to receive compensation in cash will be considered if the situation so warrants (e.g. total change of activity or place of residence). There is no provision for financial compensation for title deeds held by PAPs nor for compensation for land on host sites because: (i) no title deed was recorded in the area; (ii) the host sites will most likely be located on State land, available at no cost. If it becomes necessary to expropriate PAPs with title deeds, the funds will be derived from the contingency funds of the project to offset the cost of establishing the title deeds. Funds are also provided for the development of host sites.

c) Land Preparation Costs in Rural Areas

Farmland offered in compensation has never been cultivated before. In fact, according to the analysis of satellite imagery and the land-use map, land located in peripheral areas that has been identified as potentially available land for compensation has never been developed. Accordingly, owners who will receive the said land in compensation will first make them suitable for cultivation. It is estimated that clearing, grubbing and levelling the land will require about 20 days of work per hectare received, representing CFAF 28 800 per ha at the minimum agricultural wage rate (CFAF 1 440 / hour). Moreover, the agricultural potential will be evaluated when selecting resettlement sites.

At the dam site, the plan is to give in compensation 804 hectares of farmland and pasture land located in peripheral areas. Assuming that all this land will be prepared for farming or grazing, the total land preparation cost will amount to CFAF 23 155 200.

d) Loss and Replacement of Compounds, Buildings and Private Equipment

Built structures owned by individuals concern fences around compounds/*tapades*, and buildings and equipment found in inhabited compounds/*tapades* or which are on property outside these compounds/*tapades* that will also be flooded.

Although animal fences and enclosures identified in the 10 displaced villages consist primarily of wood or straw, the proposal is to offer PAPs the choice of replacement material. The calculation of the compensation budget was based on the price of iron wire mesh fences, which is the highest, so that this type of fence may be built around all compounds if the demand is widespread.

The replacement cost of all fences around compounds/*tapades* identified stands at CFAF 222 420 000.

Residential huts, mainly built of *banco*, (a mixture of mud and straw) will be replaced by houses made of durable materials (cement blocks, metal sheets and concrete floor). Compensation for buildings will be based on their actual dimensions, established during the census update. Moreover, all kitchens will be compensated for in durable building materials, while warehouses, entrance enclosures and barns will be compensated in *banco*.

Furthermore, in addition to compensating for identified buildings and fixed equipment, the plan is to provide an improved oven to each identified household and build an improved latrine and cemented bathroom in each compound/*tapade*, and even for those that are not currently equipped with such facilities.

The total cost of replacing fixed buildings and equipment owned by the identified households stands at CFAF 2 424 935 000.

e) Loss and Compensation for Trees

There is no organized plantation in the reservoir area. Fruit trees are generally isolated in compounds/*tapades*, village areas, fields or in natural formations, with little or no maintenance. As for trees used for gathering purposes, they are found throughout the area.

With regard to compensation, any fruit or “gathering” tree lost will be replaced with a young plant. As for lost production, fruit trees will be treated differently from “gathering” trees. Indeed, only the lost fruit trees will be compensated for since it is estimated that the natural resources surrounding reception areas will be able to provide the lost forest products upon resettlement.

Thus, initially, compensation for lost products is established by estimating the average market value of the production of a fruit tree based on the average production in the study area. Secondly, this value is applied over the period of time required for a new plant to become productive.

Overall, compensation for loss of trees is estimated at CFAF 106 497 000.

f) Loss of Income by Farmer Owners

Temporary reduction in the income of land-owning farmers may result from the loss of market-garden or rain-fed crops following impoundment of the reservoir and from lower agricultural yields for the first year of harvest on the new land.

Compensation will be provided by crop type, depending on the average yield per crop and average prices in the reservoir area.

The total expected compensation for the loss of rain-fed and market garden crop production for a year in the reservoir area stands at CFAF 242 511 889.

Furthermore, the construction of the access road will lead to the loss of a total of 2.5 ha of land. The future land ownership report will help identify in detail the affected areas, existing crops and the owners and affected farmers. For budget requirements, an average amount of CFAF 301 000 per hectare (CFAF 242 511 889 for 804 ha) is earmarked for such compensation.

The total expected compensation for loss of agricultural land due to the construction of the access road will stand at CFAF 663 600.

Overall, the compensation for crop losses stands at CFAF 243 175 479.

g) Loss of Income by Persons Employed in Non-Agricultural Sectors:

Several types of incomes are considered under compensation for loss of income:

- Agricultural income that is likely to be lost for an entire year: Compensation is calculated on the basis of the average production recorded in the survey, irrespective of whether it is the main or secondary activity of the PAP;
- Income derived from an activity practised as main activity (excluding agriculture), which may be disrupted for a relatively long period due to changes made to the living milieu or environment: (i) For fishing, potential degradation of the aquatic environment; and (ii) for gathering and hunting, distance from operating environments;

- A lumpsum corresponding to one year of the average income calculated in the study area and adjusted for PAPs whose main activity is either fishing, hunting or gathering. This amount will be redistributed gradually every month as follows: CFAF 700 000 for fishing, CFAF 500 000 for forest product gathering, and CFAF 225 000 for hunting;
- Income from activity practised as main activity that will only be temporarily affected by displacement: stockbreeding, handicraft and trade. For stockbreeding and handicraft, the compensation proposed is calculated on the basis of average earnings observed over the area and corresponds to six months of income. For traders, the huge disparity between PAPs does not make it possible to propose an average compensation; the compensation paid will therefore correspond to three months' income based on the income declared by each trader.
- Income from secondary activities: A lumpsum is proposed for such activities, regardless of the type of secondary activity considered. The household in question will receive an amount equivalent to CFAF 190 000 for each secondary activity practised (average annual income of secondary activities in the study area, excluding agriculture-related income).

The total amount to be earmarked for compensation for loss of income, excluding agriculture, stands at CFAF 41 695 000.

INTERCONNECTION LINE

For reasons of consistency and harmonization in the expropriation process and to address issues of equity and equality between persons affected by the same project, the OMVG Council of Ministers decided that the same scale would be used in the four countries to determine the value of losses. An administrative document was issued to that effect.

The precise assessment of losses and compensation will be made based on a comprehensive census of PAPs. This census will include a population census, a land ownership survey, and a socio-economic survey. This initiative will eventually provide a picture of the situation of affected persons. The data collected will help to estimate with accuracy the expected losses of PAPs. Pending the census, a certain estimate of losses was conducted through analysis of aerial photographs of the transmission line. It should be noted that no construction is located in the optimized corridor.

- a) Land loss: Given the very sparse population of the study area and the limited size of the plots taken up by the pylons, it is quite likely that lost land will be compensated for in kind.
- b) Cost of land preparation in rural areas: It is possible that farmland offered as compensation may have never been cultivated previously. Thus, recipients of land compensation will first need to make it suitable for cultivation. It is estimated that clearing, grubbing and levelling of the land will require about 20 days of work per hectare received, representing CFAF 28 800/ ha at the minimum agricultural wage rate (CFAF 1 440/day).

- c) Loss of income by land-owning farmers: The construction works will probably result in loss of crops in the corridor of the interconnection line. In the months preceding the works, it is likely that construction will not respect cropping schedules and that could cause a loss of income when crops are lost. Since this type of loss is difficult to predict, it was decided, for budgetary purposes, that the entire surface within the right-of-way could be subject to a loss of income.
- d) Loss of income by non-landowning farmers within the right-of-way of the transmission line: To ensure that farmland not cultivated by the owner(s) remains accessible to farmers after expropriation, landowner(s) will be encouraged to sign a formal agreement with farmers prior to the expropriation designed to guarantee the farmers' right of use under the same conditions. Despite this recommendation, some non-landowning farmers may lose access to part or all of the land they used to cultivate, following the expropriation. In this case, the project will help tenants find farmland.
- e) Loss of income by farmers within the right-of-way of sub-stations: Land permanently lost as a result of the construction of sub-stations will be subject to compensation in kind, but related crop losses will probably be subject to cash compensation.
- f) Compensation for houses: Buildings will be compensated for according to their actual dimensions that will be established during the census update.
- g) Compensation for loss of fruit trees: The calculation of the cost of compensation for fruit trees and forest trees is based on the average value of trees set at CFAF 35 000.

SPECIAL SOCIAL MEASURES

Support Fund for Vulnerable Persons

To assist the vulnerable people identified in the census, who are generally highly impacted by changes and do not have the financial resources to adapt, it is recommended that an Assistance Fund be set up for them, to be managed by Local Coordination and Monitoring Committees (CLCS). This Fund would be an ultimate source of help for vulnerable people who find themselves in a precarious situation as a result of the implementation of the Energy Project. The funding level of the Assistance Fund was set at CFAF 150 000 per household considered vulnerable. Thus, the available amount would be sufficient to meet the basic needs of a household for a few months. Since 55 PAPs were identified as vulnerable, based on the census results, the Assistance Fund for vulnerable people amounts to CFAF 8 250 000.

Compensation for increased sailing risks

Sailing conditions upstream of the dam will change following the creation of the reservoir, becoming more difficult mainly in the lake part of the reservoir. It will be risky to sail or fish with small canoes. To avoid accidents and enable affected persons to continue to travel and fish with their small canoes, it is recommended that compensation be provided for the addition to freeboards on these canoes. This compensation is intended for all canoe owners, regardless of whether or not they are displaced, or whether or not they practise fishing. It totals CFAF 900 000 (EUR 1 374) for all identified canoes needing to be modified.

Cost of moving project-affected households

Moving expenses will be borne by the project. The cost of moving each household is estimated at CFAF 30 000. Thus, with 180 households to be moved, the required budget amounts to CFAF 5 400 000.

Maintaining social cohesion

The objective of this programme is to maintain, as much as possible, intra-family, intra-community and inter-community cohesion so as to cope with influences from the immigrant population.

During the initial consultation, the need to maintain cohesion within village communities and between communities was clearly expressed. This demand implies that current traditional authorities will not be challenged during the movement and the RP implementation.

The aim of the strategy for maintaining such cohesion is to: (i) reduce the risk of conflicts between the indigenous and non-indigenous populations; (ii) reduce risks of cultural shock between the lifestyles of immigrants and the local people as that could be detrimental to traditional authorities; and (iii) after project completion, facilitate the return to lifestyles and living conditions that are improved, but in better harmony with the socio-cultural context of the area.

It also aims to maintain solidarity systems within families and communities, as well as between communities, considering that these systems enable them to support people and groups that are disadvantaged or facing exceptional constraints.

This strategy does not preclude the initiation of targeted economic development activities to improve the status of women and young people in the society or the introduction of certain necessary changes (land security, for example).

Resettlement is designed to help maintain this cohesion, for example, by resettling displaced populations in the same region or maintaining diversity among communities, where it exists.

However, it seems necessary to ensure that the implementation of the RP and ESMP does not affect that cohesion (or that it affects it positively) and that the measures implemented are corrected if they adversely affect it.

This approach is an ongoing assessment of the effects of the RP and ESMP, the risks and impacts of the project on families, village communities and social groups (Fulani/Soussou, farmers/stockbreeders, farmers/non-farmers, indigenous people/ immigrants, etc.).

Potential actions to be taken under this programme are:

- Definition of the specifications of the operator's mandate from the socio-economic surveys and consultations with the people. Definition, if necessary, of the self-assessment methods of the process and socio-cultural changes.
- Regular monitoring intended to identify and assess the socio-cultural or marginalization risks faced by families and groups.
- Recommendation of possible corrections to the implementation of the ESMP and RP programmes. The corrections will be made using the regular budget.
- In agreement with the host community and in line with the RP and ESMP, targeted support to groups or families in difficulty by offering counselling, getting into contact with social institutions, and implementing micro-economic measures with special monitoring or targeting of regular ESMP and RP measures. Financial grants are not advisable.

XI. IDENTIFICATION OF POSSIBLE RESETTLEMENT SITES, CHOICE OF SITE(S), SITE PREPARATION AND RESETTLEMENT

HOST SITE ALLOTMENT: The area deemed necessary for the construction of a village is estimated on the basis of 1 500 m² per person or, for an average household, 10 650 m² (1 065 ha), including the built-on area, compound/*tapade*, outbuildings and public space. This area allows for possible extensions. Farmland and areas reserved for community infrastructure should be added to this estimate. In this regard, it was estimated that a total area of 804 ha will be needed as farmland, to which should be added areas required for fallowing and replacement of community infrastructure, estimated at 7.61 ha. A total area of around 2 418 hectares will therefore be required for the development of host sites.

IDENTIFICATION AND SELECTION HOST SITES: Host areas were selected in a manner that maintains filial ties and ensures a safety margin in respect of the limits of the future reservoir (more than 210 m above the reservoir water level). The host areas were selected taking into account their proximity to existing villages and the fact that they are preferably uninhabited. Each resettlement area is located in a place identified on the land-use map as having potentially productive soils. During the consultation update, the people made alternative proposals to the initial ones. This information was collected and will be used during the third stage, which consists in verifying development possibilities on the ground. Several biophysical and technical aspects need to be analyzed to confirm the selection of a specific resettlement site. Other aspects considered in the choice of sites within the identified zones are: availability of drinking water, land-use potential of nearby areas, agricultural potential of soils of the resettlement area, distance from the most erosion-prone segments of the shoreline, and the developments required to protect the shoreline, availability of firewood and other valuable natural resources, presence of fragile wildlife habitats and measures to protect them, and accessibility and safety of the population. Line projects such as those of a power transmission line have specific characteristics.

Regarding the interconnection line, unlike projects such as dam development that occupy large swathes of land, their right-of-way is a narrow corridor. When expropriation is required, it is usually a strip within a property and not the entire property. Losses incurred by occupants of such lands are usually minor. When the physical displacement of a house or property is required, relocation is almost always within the very plot of the affected household. It is rarely necessary to develop a host site for those affected by a line project. If host sites are required, their identification and selection should be based on an iterative process entailing the active involvement of the affected population.

RESETTLEMENT MEASURES: Local Coordination and Monitoring Committees (CLCS) will be responsible for preparing, with outside experts if necessary, a development plan for each site, as well as defining the zones reserved for residential, commercial and other purposes. Depending on the size of the site, one or more habitable zones will be proposed for the future development of the site. Public infrastructure will be proposed on the basis of the compensation provided for public goods. Host site servicing includes the following:

- full replacement of all existing public goods property;
- sufficient number of classes to enable all children of school age to attend school;
- provision of health infrastructure for villages (displaced villages and surrounding villages), going over and above national standards, if necessary;

- drinking water infrastructure to meet all immediate needs on the basis of 20 litres per inhabitant and designed to meet future expansion needs;
- individual sanitation infrastructure in all private and public compounds;
- access roads; and
- where the resettlement sites are very close to host villages, common infrastructure may be provided.

Measures have also been proposed to minimize disruptions experienced by affected persons during and following involuntary displacement.

XII. HOUSING, INFRASTRUCTURE AND SOCIAL SERVICES

✓ HOUSING

As part of the resettlement process, the houses lost by displaced persons will be compensated for with new houses as follows: residential houses and toilets will be replaced by new ones built by the project. Other buildings (barns, enclosures and huts) will be compensated for financially.

The displaced population will be consulted during the resettlement process so as to define the characteristics of the reconstructed buildings: desired materials, building type and spatial distribution. Based on the consultations held so far (Sambangalou and Néoudou villages), the principles adopted at this stage are as follows:

- Use of cement and iron sheets as building materials for residential houses;
- A single residential house per household, with a room for each woman and a room for the man;
- The Chief and the Imam will, in addition, have a separate building in their compound;
- Two common residential buildings for older children who have not yet founded a household, one for each sex; and
- Maintenance of a similar neighbourhood.

✓ **SOCIAL INFRASTRUCTURE AND SERVICES:** The social infrastructure and services to be provided under the project were determined taking account the infrastructure that existed prior to the displacement, the size of the villages, and the distance between resettlement sites. Groups were thus formed on the basis of pooled infrastructure.

XIII. ENVIRONMENTAL SAFEGUARDS

The development of host sites, displacement and resettlement activities will create pressure on the environment, which could adversely affect some of its components. The main impact of the RP implementation on the environment relate to construction and transport activities. Key among these impacts are soil compaction due to extensive movement of heavy vehicles, loss of natural vegetation and consequently of wildlife habitat, increased risk of soil and water contamination, and production of large quantities dry debris (e.g. from demolition of houses). Mitigating these impacts requires that contractors responsible for construction, displacement and/or demolition be compelled to use appropriate working techniques as defined in the mitigation measures proposed in the ESMP. The mitigation measures that should be included in RP implementation contracts involving field work and/or displacements are detailed in the ESMP.

XIV. IMPLEMENTATION SCHEDULE

SAMBANGALOU HYDROELECTRIC PLANT

The implementation schedules presented below are consistent with the implementation timeline of the Energy Project and that of the ESMP. They comprise the indemnification and compensation schedule, and the schedule for the implementation of resettlement and development measures. They span a 10-year period, with five relating to the pre-impoundment period and five to the post-impoundment period

Due to the constraints of the implementation timetable, the relocation of PAPs on the reservoir's right-of-way has been programmed to take place after works start-up. Indeed, there is no PAP on the right-of-way or within the vicinity of the reservoir's construction site. Consequently, the compensation and resettlement process is planned to take place just before the reservoir impoundment date. The resettlement process is therefore expected to be completed not more than six months prior to impoundment. On the other hand, the 106 PAPs located within the right-of-way of the access road and bridge to the worksite will be compensated and resettled prior to works start-up.

Compensations will be paid according to the following timetable:

| Schedule | Preparation and construction | | | | MES | Operation | | | | | |
|---|------------------------------|--------------------------|------|------|------|-----------|------|------|------|------|--|
| | 2014 | 2015 (Start of works) | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
| WORKS PROGRAMME | | | | | | | | | | | |
| Preparation and construction phase | ■ | | | | | | | | | | |
| Impoundment of the reservoir | | | | ■ | | | | | | | |
| Power generation | | | | | | ■ | ■ | ■ | ■ | ■ | |
| INDEMNIFICATION AND COMPENSATION MEASURES | | | | | | | | | | | |
| Census update | | | | | | | | | | | |
| Inventory of land and its uses | ■ | | | | | | | | | | |
| Census update (population, property and assets) | ■ | | | | | | | | | | |
| Construction and development of host sites | | | | | | | | | | | |
| Detailed design and CBDs for host sites and roads | ■ | ■ | | | | | | | | | |
| Village planning (development plan) | ■ | ■ | | | | | | | | | |
| Road infrastructure | | ■ | ■ | | | | | | | | |
| Housing | | ■ | ■ | | | | | | | | |
| Health infrastructure and services | | ■ | ■ | | | | | | | | |
| School infrastructure and services | | ■ | ■ | | | | | | | | |
| Cultural infrastructure and services | | ■ | ■ | | | | | | | | |
| DWS Infrastructure and services | | ■ | ■ | | | | | | | | |
| Transfer of persons and property | | | | | | | | | | | |
| Phased relocation | | | ■ | | | | | | | | |
| Settlement of benefits | | | | | | | | | | | |
| Compensation of PAPs for losses | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Operation support | | | | | | | | | | | |
| Support for the operation of the services set up | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |

The resettlement of PAPs will be conducted as indicated below:

| Schedule | Preparation and construction | | | | MES | Operation | | | | |
|---|------------------------------|--------------------------|------|------|------|-----------|------|------|------|------|
| | 2014 | 2015 (Start of works) | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| WORKS PROGRAMME | | | | | | | | | | |
| Preparation and construction phase | ■ | | | | | | | | | |
| Reservoir impoundment | | | | ■ | | | | | | |
| Power generation | | | | | | ■ | ■ | ■ | ■ | ■ |
| RESETTLEMENT AND DEVELOPMENT MEASURES | | | | | | | | | | |
| Local development planning | | | | | | | | | | |
| Strengthening of rural communities and Rur. Dev Committees (RDCs) | ■ | | | | ● | ● | ● | ● | ● | ● |
| Development and land-use plans | ■ | | | | | | | | | |
| Agro-sylvo-pastoral planning | | | | | | | | | | |
| Mapping of degraded areas | | ■ | | | | | | | | |
| Phased development | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Improvement of family agriculture | | | | | | | | | | |
| Support in the form of improved seeds | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Support to seed farmers | | | | | | ■ | ■ | ■ | ■ | ■ |
| Market gardening support | | | | | | ■ | ■ | ■ | ■ | ■ |
| Training, extension | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Improvement of family stockbreeding | | | | | | | | | | |
| Baseline, programming | | | ■ | | | | | | | |
| Training, extension | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Improvement of small scale fishing | | | | | | | | | | |
| Clearing of drawdown zone | | | | ■ | | | | | | |
| Management plan | | | | | ■ | | | | | |
| Investment assistance | | | | | | ■ | ■ | ■ | ■ | ■ |
| Training, technical support | | | | | | ■ | ■ | ■ | ■ | ■ |
| Scientific monitoring | | | | ■ | | | | | | ■ |
| Dev. Handicraft activities, reconversion support | | | | | | | | | | |
| Baseline | ■ | | | | | | | | | |
| Study on reconversion projects | | ■ | | | | | | | | |
| Micro-project support | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

INTERCONNECTION LINE

The interconnection line construction programme envisages the finalization of all the interconnection networks in 2016. The construction is scheduled to start from May/June 2015 and the works are estimated to last 18 months.

Regarding the RP implementation timeline, the census of PAPs will be based on the programme for the conduct of implementation studies. The final route will be determined only during the validation, by the Consulting Engineer, of these studies which will help to determine the precise positioning of the line's 40-metre right-of-way within the two km-wide corridor adopted at the preliminary design phase. Arrangements will be made at this stage to minimize the impact on private and public goods. Therefore, the assessment of losses will not be finalized until after optimization of the route. The stages of the resettlement process have been scheduled as follows:

- Mobilization of the financial contribution of States: March 2015;
- Mobilization of stakeholders identified during census and compensation of PAPs (operator, NGO, Consulting Engineer): May 2015;
- Start of implementation studies: June 2015;
- Start of population census: June 2015; and
- Start of payment of indemnification and compensation: July 2015.

Monitoring will cover the two-year construction period and continue for at least three years after the commissioning of the line.

XV. COSTS AND BUDGET

SAMBANGALOU HYDROELECTRIC DEVELOPMENT

The overall budget for implementation of the Resettlement Plan amounts to EUR 12 359 868 over a 10-year period. This amount includes indemnification and compensation of EUR 7 118 351, and costs associated with resettlement and development measures amounting to EUR 5 241 517. However, a reserve of EUR 790 047 has been included in the budget to hedge affected persons' compensation against inflation. The 5% contingency fund applies only to non-compensation RP expenses. The tables below present the budget for the indemnification and compensation, as well as for resettlement and development measures.

▪ *Cost of Indemnification and Compensation Measures*

| | (EUR) | | Breakdown by State | | | |
|---|------------------|-----------|--------------------|---------|-----------|-----------|
| | | | Gambia | Guinea | Guinea-B. | Senegal |
| INDEMNIFICATION AND COMPENSATION MEASURES | | | | | | |
| Land inventory and uses | 29 349 | | | | | |
| Studies, supervision | | 1 936 | 348 | 387 | 271 | 929 |
| Demarcation of areas to be expropriated | | 8 823 | 1 588 | 1 765 | 1 235 | 4 235 |
| Surveys, investigation, and feedback | | 18 591 | 3 346 | 3 718 | 2 603 | 8 924 |
| Census update (property and assets) | 4 726 | | | | | |
| Studies, supervision | | 1 530 | 275 | 306 | 214 | 735 |
| Surveys, investigation, and feedback | | 3 196 | 575 | 639 | 447 | 1 534 |
| Settlement of indemnities | | | | | | |
| Compensation for agricultural activities | 406 019 | | | | | |
| Land preparation | | 35 300 | 6 354 | 7 060 | 4 942 | 16 944 |
| Compensation for loss of agricultural income (landowners) | | 370 719 | 66 729 | 74 144 | 51 901 | 177 945 |
| Compensation for non-agricultural activities | 235 522 | | | | | |
| Compensation for loss of fishing income | | 10 854 | 1 954 | 2 171 | 1 520 | 5 210 |
| Replacement of trees and products | | 162 354 | 29 224 | 32 471 | 22 730 | 77 930 |
| Compensation for loss of access to natural resources | | 8 232 | 1 482 | 1 646 | 1 153 | 3 951 |
| Compensation for loss of income (excluding agriculture and fishing) | | 52 709 | 9 488 | 10 542 | 7 379 | 25 300 |
| Compensation for risks of navigating on the reservoir | | 1 372 | 247 | 274 | 192 | 659 |
| Compensation for vulnerable persons | 12 577 | | | | | |
| Emergency relief fund for vulnerable persons | | 12 577 | 2 264 | 2 515 | 1 761 | 6 037 |
| Intervention costs (for indemnities) | 27 008 | 27 008 | 4 861 | 5 402 | 3 781 | 12 964 |
| Village planning | | | | | | |
| Services | 67 521 | 67 521 | 12 154 | 13 504 | 9 453 | 32 410 |
| Reconstruction of houses and fences | 4 058 374 | | | | | |
| Replacement of buildings and equipment in compounds | | 3 696 790 | 665 422 | 739 358 | 517 551 | 1 774 459 |
| Replacement of fences of compounds/ <i>tapades</i> | | 339 077 | 61 034 | 67 815 | 47 471 | 162 757 |
| Physical contingencies | | 22 507 | 4 051 | 4 501 | 3 151 | 10 803 |
| Education infrastructure and services | 223 108 | | | | | |
| Services | | 6 302 | 1 134 | 1 260 | 882 | 3 025 |
| Construction | | 194 930 | 35 087 | 38 986 | 27 290 | 93 566 |
| Equipment and supplies | | 10 623 | 1 912 | 2 125 | 1 487 | 5 099 |
| Operating costs | | 6 752 | 1 215 | 1 350 | 945 | 3 241 |
| Provision for maintenance | | 4 501 | 810 | 900 | 630 | 2 161 |
| Health infrastructure and services | 121 107 | | | | | |
| Services | | 3 421 | 616 | 684 | 479 | 1 642 |
| Construction, equipment | | 109 313 | 19 676 | 21 863 | 15 304 | 52 470 |
| Operating costs | | 8 373 | 1 507 | 1 675 | 1 172 | 4 019 |
| Socio-cultural infrastructure and services | 353 214 | | | | | |
| Construction and equipment | | 347 272 | 62 509 | 69 454 | 48 618 | 166 690 |
| Support for sport and cultural activities | | 5 942 | 1 070 | 1 188 | 832 | 2 852 |

| | | | | | | |
|--|------------------|------------------|------------------|------------------|----------------|------------------|
| DWS and sanitation infrastructures and services | 142 247 | | | | | |
| Technical studies and support | | 6 302 | 1 134 | 1 260 | 882 | 3 025 |
| Construction of 7 boreholes and one public latrine (as compensation) | | 132 794 | 23 903 | 26 559 | 18 591 | 63 741 |
| Provision for maintenance | | 3 151 | 567 | 630 | 441 | 1 512 |
| Road infrastructure | 572 575 | | | | | |
| Technical studies and support | | 13 504 | 2 431 | 2 701 | 1 891 | 6 482 |
| Construction of rural roads | | 549 618 | 98 931 | 109 924 | 76 947 | 263 817 |
| Provision for maintenance | | 9 453 | 1 702 | 1 891 | 1 323 | 4 537 |
| River-crossing infrastructure | 54 804 | | | | | |
| Construction and equipment | | 45 802 | 8 244 | 9 160 | 6 412 | 21 985 |
| Operation and maintenance | | 9 003 | 1 620 | 1 801 | 1 260 | 4 321 |
| Transfer of persons and property | 8 232 | | | | | |
| Expenses for moving affected households and their property | | 8 232 | 1 482 | 1 646 | 1 153 | 3 951 |
| Provision for inflation on compensation | | | | | | |
| Average inflation of 2.4% per year (for compensation) | 790 047 | 790 047 | 142 208 | 158 009 | 110 607 | 379 222 |
| 5% Contingencies (excl. compensation) | 11 922 | 11 922 | 2 146 | 2 384 | 1 669 | 5 723 |
| TOTAL – INDEMNIFICATION AND COMPENSATION MEASURES | 7 118 351 | 7 118 351 | 1 281 303 | 1 423 670 | 996 569 | 3 416 809 |

▪ *Cost of Resettlement and Development Measures*

| | (EUR) | | Breakdown by State | | | |
|--|------------------|-----------|--------------------|---------------|-------------------|----------------|
| RESETTLEMENT AND DEVELOPMENT MEASURES | | | Gambia | Guinea | Guinea- B. | Senegal |
| Planning and local development | 564 107 | | | | | |
| Engineering and consultancy (land use and development plans) | | 55 849 | 10 053 | 11 170 | 7 819 | 26 807 |
| Strengthening of CR and Rur. Dev. Com | | | | | | |
| Investment | | 160 652 | 28 917 | 32 130 | 22 491 | 77 113 |
| Operating costs | | 347 607 | 62 569 | 69 521 | 48 665 | 166 851 |
| Agro-sylvo-pastoral development | 1 738 033 | | | | | |
| Studies and assessment | | 231 738 | 41 713 | 46 348 | 32 443 | 111 234 |
| Development | | 1 158 688 | 208 564 | 231 738 | 162 216 | 556 170 |
| Reforestation | | 347 607 | 62 569 | 69 521 | 48 665 | 166 851 |
| Improvement of family agriculture | 677 833 | | | | | |
| Studies | | 11 587 | 2 086 | 2 317 | 1 622 | 5 562 |
| Appropriations and developments | | 49 244 | 8 864 | 9 849 | 6 894 | 23 637 |
| Training | | 110 075 | 19 814 | 22 015 | 15 411 | 52 836 |
| Operator contract | | 506 926 | 91 247 | 101 385 | 70 970 | 243 325 |
| Perennial crops and plantations | 89 798 | | | | | |
| Appropriations and developments | | 17 380 | 3 128 | 3 476 | 2 433 | 8 343 |
| Training, support | | 5 793 | 1 043 | 1 159 | 811 | 2 781 |
| Village fire management committees | | 66 625 | 11 992 | 13 325 | 9 327 | 31 980 |
| Action research | 291 352 | | | | | |
| Studies, reports | | 28 388 | 5 110 | 5 678 | 3 974 | 13 626 |
| Field performance | | 61 642 | 11 096 | 12 328 | 8 630 | 29 588 |
| Investments | | 130 352 | 23 463 | 26 070 | 18 249 | 62 569 |
| Training and demonstrations | | 33 457 | 6 022 | 6 691 | 4 684 | 16 059 |
| Operator's management expenses | | 37 513 | 6 752 | 7 503 | 5 252 | 18 006 |

| | | | | | | |
|--|------------------|------------------|----------------|------------------|----------------|------------------|
| Improvement of family livestock production | 46 348 | | | | | |
| Studies and technical support | | 11 587 | 2 086 | 2 317 | 1 622 | 5 562 |
| Appropriations and developments | | 34 761 | 6 257 | 6 952 | 4 866 | 16 685 |
| Generation of agriculture-related incomes | 88 640 | | | | | |
| Studies and technical support | | 31 285 | 5 631 | 6 257 | 4 380 | 15 017 |
| Appropriations and developments | | 57 355 | 10 324 | 11 471 | 8 030 | 27 530 |
| Improvement of fishing as a side activity | 100 516 | | | | | |
| Studies and technical support | | 17 960 | 3 233 | 3 592 | 2 514 | 8 621 |
| Endowments and developments | | 16 511 | 2 972 | 3 302 | 2 312 | 7 925 |
| Surveys and et scientific performance | | 66 045 | 11 888 | 13 209 | 9 246 | 31 702 |
| Development of craftsmen, reconversion | 142 866 | | | | | |
| Technical studies and support | | 19 292 | 3 473 | 3 858 | 2 701 | 9 260 |
| Training | | 72 302 | 13 014 | 14 460 | 10 122 | 34 705 |
| Staffing | | 51 272 | 9 229 | 10 254 | 7 178 | 24 611 |
| Human capacity building | 48 086 | 48 086 | 8 655 | 9 617 | 6 732 | 23 081 |
| Strengthening of rural services | 172 529 | | | | | |
| Input supply | | 33 138 | 5 965 | 6 628 | 4 639 | 15 906 |
| Marketing | | 7 531 | 1 356 | 1 506 | 1 054 | 3 615 |
| Micro-finance | | 131 859 | 23 735 | 26 372 | 18 460 | 63 292 |
| Maintenance of social harmony | 188 866 | | | | | |
| Studies and support | | 128 035 | 23 046 | 25 607 | 17 925 | 61 457 |
| Special intervention fund | | 60 831 | 10 950 | 12 166 | 8 516 | 29 199 |
| Land security | 220 151 | | | | | |
| Studies | | 23 174 | 4 171 | 4 635 | 3 244 | 11 123 |
| Implementation | | 196 977 | 35 456 | 39 395 | 27 577 | 94 549 |
| Operators of resettlement measures | 622 795 | | | | | |
| Services | | 370 780 | 66 740 | 74 156 | 51 909 | 177 975 |
| Investment | | 89 798 | 16 164 | 17 960 | 12 572 | 43 103 |
| Operating costs | | 162 216 | 29 199 | 32 443 | 22 710 | 77 864 |
| 5% Contingencies | 249 597 | 249 597 | 44 927 | 49 919 | 34 944 | 119 807 |
| TOTAL – RESETTLEMENT AND DEVELOPMENT MEASURES | 5 241 517 | 5 241 517 | 943 473 | 1 048 303 | 733 812 | 2 515 928 |

INTERCONNECTION LINE

The budget was prepared on the basis of: (i) Compensation for annual and perennial crops: The consultant used updated rates; (ii) Specific actions for displaced persons and their host areas: cost of actions directly affecting the impacted persons; (iii) Project management: The costs are estimated on the basis of the prices usually charged. Compensation and indemnification for persons affected by the construction of sub-stations and the interconnection line are separate. The budget for this interconnection component is merely a rough estimate, since the route of the interconnection line is not specified, which causes uncertainties concerning property losses and the number of project-affected persons (PAPs). Nevertheless, with the available field data, the budget for this component is estimated at CFAF 1 487 105 956, rounded up to CFAF 1,488,000,000 or EUR 2 267 000. The financing is entirely borne by OMVG Member States. The price details are shown in the table below, expressed in rounded values.

| No. | ITEM | CFAF | EUR |
|----------|---|----------------------------------|-------------------------|
| A | INDIVIDUAL INDEMNITIES AND COMPENSATION FOR ITEMS IN CONNECTION WITH THE INTERCONNECTION LINE | | |
| A1 | Compensation for fruit trees | 90 000 000 | 136 000 |
| A2 | Compensation corresponding to a year's food crop production | 552 000 000 | 841 000 |
| A3 | Crop replanting expenses | 300 000 | 455 |
| | <i>Sub-Total for the Line</i> | <i>642 300 000</i> | <i>977 455</i> |
| B | INDIVIDUAL INDEMNITIES AND COMPENSATION FOR ITEMS | | |
| B1 | Compensation for fruit trees | 140 215 000 | 214 000 |
| B2 | Compensation corresponding to a year's food crop production | 2 730 000 | 4 160 |
| B3 | Houses | 12 000 000 | 19 000 |
| B4 | Title deeds | 100 000 000 | 152 000 |
| | <i>Sub-Total for Items</i> | <i>257 945 000</i> | <i>388 660</i> |
| | TOTAL INDEMNISATION AND COMPENSATION | 900 000 000 | 1 371 000 |
| F | PROJECT OWNER | | |
| F1 | Assistance to vulnerable persons and conflict management mechanism (NGOs, travel expenses, complaint centres, etc.) | 20 000 000 | 30 490 |
| F2 | Cost of Project Management Unit for 3 years | 200 000 000 (50 million times 4) | 304 898 |
| F3 | Facilitation of administration staff, elected officials and the chiefdom | 60 000 000 (15 million times 4) | 91 469 |
| F4 | Monitoring of work sites, legal advice | 20 000 000 | 30 490 |
| F5 | Monitoring and evaluation | 40 000 000 | 60 980 |
| | <i>Sub-Total Management</i> | <i>340 000 000</i> | <i>518 327</i> |
| | TOTAL (from A to F) | 1 240 000 000 | 1 889 000 |
| | MISCELLANEOUS AND CONTINGENCIES 20% | 247 851 000 | 378 000 |
| | <u>GRAND TOTAL</u> | <u>1 488 000 000</u> | <u>2 267 000</u> |

XVI. MONITORING AND EVALUATION

Monitoring and evaluation arrangements seek to ensure, first, that the proposed actions are implemented as planned and within the established timeframe and, secondly, that the expected results are achieved. When weaknesses or difficulties are observed, monitoring and evaluation help to trigger appropriate corrective action.

The proposed monitoring and evaluation (M&E) measures are consistent with the general M&E framework defined in the Sambangalou ESMP. The ESMP will define, in particular, monitoring measures specifically concerning construction activities. It is also under the ESMP that the resources required for the M&E mission will be determined. Specific measures are proposed in this RP, key among which are the following:

- Monitoring of population demographics;
- Monitoring of the development of host sites and their intake capacity;
- Monitoring of the implementation of compensation or indemnification measures;

- Monitoring of developments in the living conditions of PAPs;
- Monitoring of specific compensation for women;
- Monitoring of the provision of technical and material support to local authorities;
- Monitoring of the trend of activities and income level;
- Monitoring of the intake capacity of resettlement sites; and
- Monitoring of compensation and indemnification for loss of infrastructure and social services.

XVII. REFERENCES AND CONTACTS

References

- ESIA report of the OMVG Power Project
- Report of the Environmental and Social Management Plan
- Report of the Comprehensive Resettlement Plan

Contacts

- For further information, please contact:
- Mr. Kurt LONSWAY, Environment and Climate Change Division, (k.lonsway@afdb.org)
- Mr. A. Bassirou DIALLO, Energy Division 1, (a.u.diallo@afdb.org)
- Mr. Modeste KINANE, Environment and Climate Change Division, (m.kinane@afdb.org)
- Mr. Salim BAIOD, Environment and Climate Change Division, (s.baiod@afdb.org)
- Mr. P. Hassan SANON, Environment and Climate Change Division, (h.sanon@afdb.org)