



O.M.V.S.

SENEGAL RIVER DEVELOPMENT ORGANIZATION

Tél. : 23.45.30 - 23.27.77

TELEX N° 51 670 ORMIVAF

INTER-STATE COOPERATION

Background

Established on 11 March 1972 by the states of Mali, Mauritania and Senegal, the OMVS is the result of a long process of initiatives dating back to the colonial era and aimed at developing the Senegal River. This orientation actually started shaping in 1935 with the establishment of the Mission d'Amenagement du Fleuve Senegal (M.A.S.) which engaged in activities such as hydrologic and agronomic studies, development of rice perimeters etc.

However, for the purpose of developing the river basin, it was only after the riparian states gained international sovereignty that a number of institutions were established, namely :

- 1963-1968 : The Inter-states Committee for the Development of the Senegal River Basin grouping Guinea, Mali, Mauritania and Senegal.
- 1968-1972 : The Senegal River Riparian

States Organization (OERS) which, with the same membership as above, advocated a wider economic cooperation.

In this respect, It shall be noted that despite the successive changes brought to the institutional frame, the Organization has, ever since 1963, consistently worked to achieve the same objectives.

Objectives

The Organization's objectives are as follows :

- To securize and increase the income of the populations concerned.
- To restore the equilibrium of the sub-region's eco-system.
- To reduce the vulnerability of the three Member States' economies.
- To accelerate economic development in the Member States.

FUNDAMENTAL TEXTS

The Organization's three Member States have signed four conventions which constitute the basic texts governing all the activities aimed at harnessing the Senegal River and at developing the resources of the river basin.

Convention on the Establishment of the OMVS

Signed on 11 March 1972 at Nouackhott by the Heads of State of Mali, Mauritania and Senegal, this convention — wich has been amended a number of times — defines the mandate as well as the competence of the Organization whose executive organ is the High Commission.

Convention on the legal status of the Senegal river

Under this convention signed on 11 March 1972, the Senegal River (including its tributaries)

is declared an international waterway in the territories of the Republics of Mali, Mauritania and Senegal. The convention also guarantees free navigation and equal treatment for all member states with respect to the various forms of utilization of the river water resources.

Said free navigation and equal treatment of member states also applies to the roads and railways as well as to the lateral canals constructed for the special purpose of making up for the impossibility of navigation or for the defective nature of the waterway in some sections of both the river and its tributaries.

Regarding the exploitation of the river for agricultural or industrial purposes, the convention provides for the principle of the contracting states' prior approval of all projects that are likely to modify in a noticeable way the characteristics of the river.

On 16 December 1975, an amendment to the

convention modified from 10 to 99 years the period at the end of which the convention may be terminated by any of the contracting states.

Convention on the legal status of the jointly Owned Structures

This convention was signed on 21 December 1978 by the Heads of State and of Government of Mali, Mauritania and Senegal who had adopted ever since 1974 the principle whereby the common interest structures constructed on the Senegal river shall be the joint ownership of the OMVS Member States.

Said convention provides for the legal status of the so-called Jointly Owned Structures (namely the conditions to be met by structures in order to be eligible for such a status, the conditions their construction should comply with and the special status granted by member states to the Jointly Owned structures). Besides the convention also

defines the rights and obligations of the co-Owner States and provides for the establishment of an agency for the management of said Jointly Owned Structures.

Convention on the financing modalities for the Jointly Owned Structures

Signed on 12 May 1982 at Bamako, this convention provides for the financing modalities for the OMVS programme (contributions, loans, grants), the guarantee arrangements vis-à-vis financiers (joint and several guarantee) and a cost and charge allocation key that can be adjusted whenever need be.

The current cost allocation key stands as follows :

— Mauritania :	22.60%
— Senegal :	42.10%
— Mali :	35.30%

STATUTORY ORGANS

Standing organs :

Under the amended convention of 11 March 1972, the OMVS is placed under the supreme authority of the Conference of Heads of State and of Government and includes the following three standing organs :

- The Council of Ministers
- The High Commission, and
- The Water Standing Committee.

The Conference of the Heads of State and of Government is the OMVS supreme organ and defines the organization's cooperation and development policy.

The Council of Ministers is the organization's concept and supervision body entrusted with the elaboration of the global development policy for the Senegal river basin towards the exploitation of its resources.

The organization's executive organ, the High Commission is headed by a High Commissioner assisted by a Secretary General.

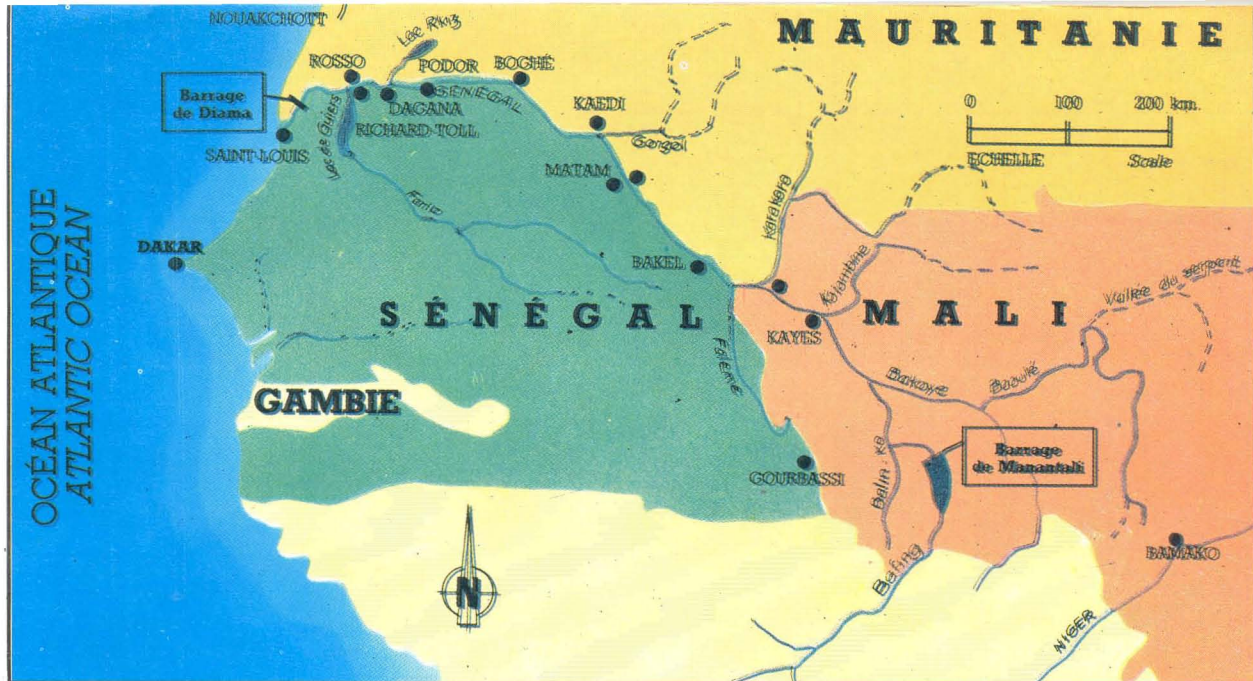
The High Commission includes the following 3 departments and 3 divisions :

- the Department of Investments and Debt
- the Department of Development and Coordination
- the Department of Regional Infrastructure
- the Administration and Accounts Division,
- the Communications and External Relations Division, and
- the Regional Documentation Centre

The Water Standing Committee is entrusted with defining the principles and modalities for the allocation of the river water resources among the member states and among the various utilization sectors, namely : industry, agriculture and transport. It has an advisory status before the Council of Ministers.

Subsidiary organs :

- The Consultative Committee.
- The Regional Planning Committee.



PROGRAMME

It includes 3 components, namely : Irrigation, Navigation and Energy.

Irrigation

The objective here is to irrigate some 375,000 ha through the construction of the Diama and Manantali dams.

— the Diama dam is an anti-salt one whose basic function is to stop the intrusion of salt water into the Senegal River, thereby making agriculture possible in the Delta lands that otherwise were uncultivable on account of their salinity.

— The Manantali dam is a multi-purpose storage dam allowing to regularize the Senegal river flows (300 m³/s at Bakel) and has been designed to ensure :

- an efficient contribution in the development of irrigated agriculture,
- year-round navigability of the river,
- electric power generation by the plant projected to be constructed at the toe of the dam and whose output shall stand at 800 GWH guaranteed 9 years out of 10.

Navigation

The navigation component includes :

- the improvement of the channel in order to allow for year-round navigation over some

930 km between Kayes and Saint-Louis,

- the construction of ports and places of call,
- the establishment of an inter-states navigation company.

Energy

The objective here is the construction, at the toe of the Manantali dam, of a hydro-electric power plant with an 800 million Kwh/year guaranteed generation capacity. This targeted production level will be achieved thanks to the reservoir that can impound some 11 billion m³.

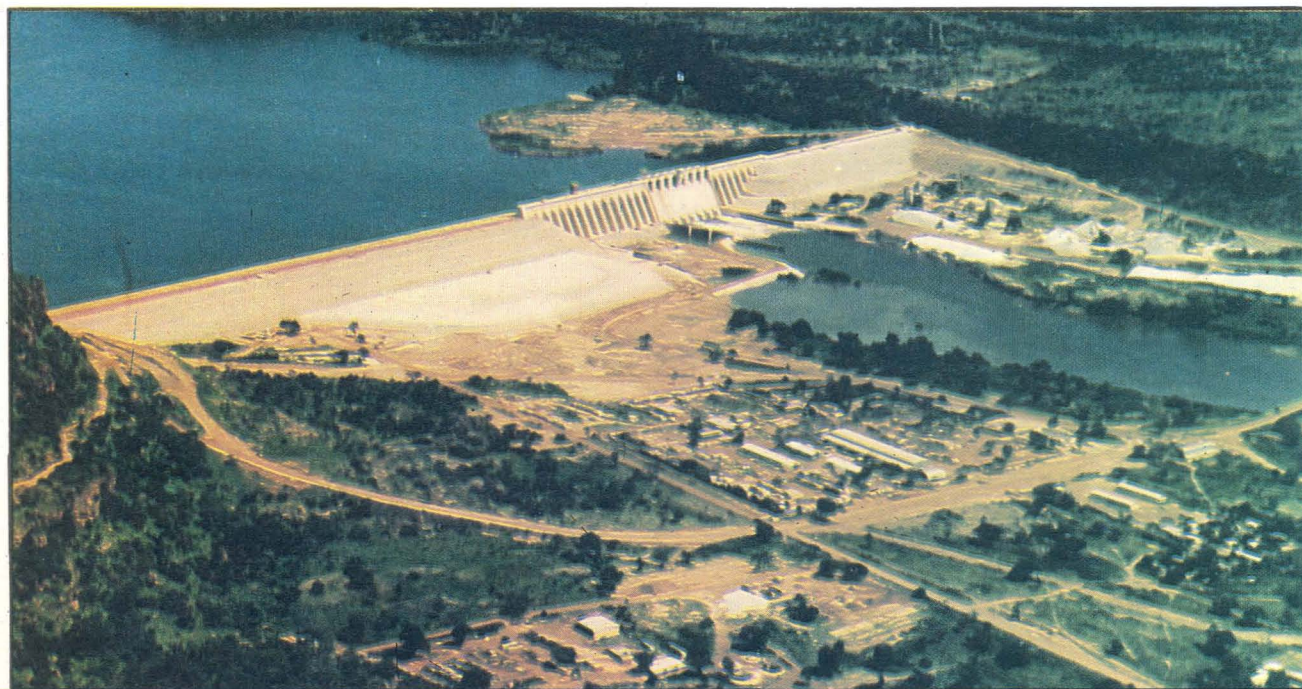
The OMVS shall ensure an optimum exploitation of these infrastructures through the establishment of a coherent frame of consultation conducive to the harmonization and coordination of all development activities, especially in the prospect of the post dam era.

Besides and for the purpose of achieving the Basin's integrated development with respect to agriculture, industry and transport, the OMVS is also entrusted — on behalf of the Member States — with the management of a number of aspects of the organization's programme through the setting up of appropriate instruments such as the management agencies for the jointly owned structures and the regional planning committee.



Diama dam (view from upstream section).

Manantali dam (overall view)



ACHIEVEMENTS

1. DIAMA DAM

It is located across the river between the villages of Diama on the left bank and Tounde Berette on the right bank. Construction works for this structure were initiated on 12 September 1981 and the completion certificate (provisional acceptance) was issued to the contractor on 12 August 1986 whereas the maintenance certificate, which marks the final acceptance, was signed on 18 March 1988. Construction works have been carried out :

— For the civil works bid package : by SGE (France), GTM International (France), Entrecanales Y Tavora (Spain), Agroman Empresa Constructora (Spain) and Entreprise Jean Le-febvre (Senegal); and

— for the equipment bid package : by Neyrpic (France), STR (France) and Krupp industrie und Staalban (FRG). Supervision has been carried out by SOGREAH and COYNE & BELLIER Consulting Engineers.

Objectives

Whilst Diama Dam is basically an anti-salt

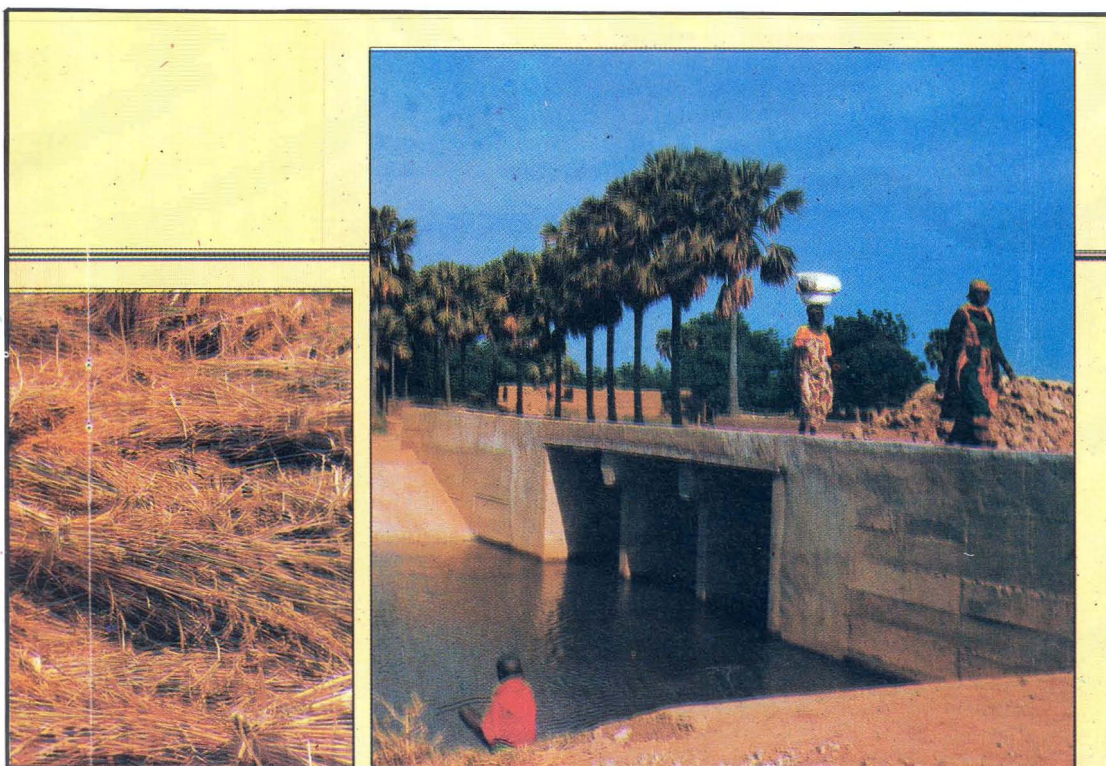
one, it also allows for the irrigation, under double cropping, of about 42,000 net ha at + 1.5 m IGN level and of 100,000 ha at + 2.5 m IGN on the one hand and, on the other hand for an improved filling of the lakes of Guiers (in Senegal) and R'Kiz (in Mauritania) as well as of the Aftout es Sahel depression (in Mauritania).

Specifications

The main structure of Diama has been designed to be a barrage or movable weir whose spillway gates are opened during flood periods in order to allow for normal discharge of the river flows and closed during low water periods in order to stop the intrusion of salt water into the river thereby securing an adequate reserve of fresh water.

The dam includes :

- The flood spillway comprising seven 20 m wide bays equipped with collapsible radial gates and allowing for water impoundment between + 1.50 and 2.50 IGN levels.
- A 175 m x 13 m navigation lock.
- A closure dyke and a closing one as well as



dykings on the right bank (construction works currently underway) and on the left bank (to be rehabilitated).

— Road links between St-Louis and Diama and between St-Louis and Nouakchott (to be constructed).

Financing

Costs incurred under the construction works of the dam proper stand at CFA.F and equivalent 36 billion. Financing has been secured by Saudi Arabia (Saudi Fund), France (CCCE and Fac), the commission of the European Communities (EDF), the ADB Group (NTF and ADF) and the UNDP.

2. MANANTALI DAM

It is located on the Bafing, 90 km South-east Bafoulabe in the Republic of Mali. Construction works for this structure started in June 1982. The completion certificate (provisional acceptance) was issued to the contractor on 31 March 1988 and the maintenance certificate (final acceptance) will be issued in the course of 1990.

Construction works have been carried out :

— For the Civil Works bid package : by groupement ECBM which groups Zublin (FRG), Dykerhoff & Widman (FRG), Sagecom (Senegal), Losinger (Switzerland).

— For the equipment bid package : by two consortia grouping, on the one hand, Man (FRG) and vevey (Switzerland) and, on the other hand, Mongah (Canada), Man Lepper (Canada), Riva Calzoni (Italy) and ATB (Italy).

The supervision bid package has been executed by the following consulting engineers :

Rhein Ruhr (FRG), Tractebel (Belgium) and SONED Afrique (Senegal).

Objectives

The Manantali dam has been designed as a hydro-electric and regulation dam allowing, inter alia, for :

- The irrigation of some 225,000 ha of lands in the valley at the normal 208 m IGN elevation.
- Year-round navigability in the Senegal river from St-Louis to Kayes.
- The generation of hydro-electric power with a guaranteed output of 800 GWH/year.

Specifications

The dam consists of a 482.8 m long central concrete part housing all the surface hydraulic structures and of two lateral rockfill dykes.

It is 65 m high above foundations and includes :

- eight 9 m wide bays equipped with radial gates,
- seven 3.8 m x 4.8 m penstocks equipped with radial gates,
- five 14 m x 15.4 intake structures located in the upstream side and prolonged by five 4.8 diameter conduits.

Financing

Costs incurred under the dam construction works amounted to CFA F and equivalent 150 billion financed by Saudi Arabia (Saudi Fund), Kuwait (Kuwait Fund), Abu Dhabi (Abu Dhabi Fund), the OPEC Fund, the Islamic Development Bank (IDB), Italy, the Commission of The European Communities (CEC), the ADB Group, Canada, USAID and the UNDP.

FINANCING THE PROGRAMME

In order to finance its programme, the OMVS requested and enlisted the assistance of a number of friendly countries and of development assistance financial institutions. There are two major items under the financing plan, namely : the studies on and the execution of the jointly owned structures commonly referred to as the investment budget.

Studies

The preliminary feasibility studies have been carried out between 1964 and 1974 for a total amount of about US \$ 12 million mainly financed by the United Nations Development Programme (UNDP) and a few bilateral grants.

The engineering studies for the Diama and

Manantali dams as well as for the port infrastructures, the navigable channel and the power plant, cost estimated at \$ 20 million, have been financed with grants extended by the Federal Republic of Germany, France, Canada and Belgium.

The associated general studies (socio-economic, environmental and miscellaneous technical studies, agronomic research and institutional support) have been financed with bilateral assistance grants (USAID, France, Italy) and with UN grants.

Furthermore, concurrent with these studies, the organization also received, on a grant basis, a technical expertise intended to backstop the action of the OMVS departments whose average annual operating budget — excluding the budget for the provisional structures (\$ 1 million) — stands at about \$ 2 million totally borne by the Member States.

The Investment Budget

For the purpose of the construction works of the basic infrastructure headworks that the Diama and Manantali dams are, the OMVS has been granted financing under the exceptionally favourable conditions for development assistance, namely :

- an average 45 year repayment period of which a 9 year grace period; and
- a 2% interest rate.

The countries and financial institutions which have extended support and assistance for the execution of the programme's first generation component are : the Saudi, Kuwait, Abu Dhabi and OPEC Funds, the European Economic Community, the African Development Bank Group, the Islamic Development Bank, France, Italy, Canada, and the UNDP.

The financial package secured for this end stands at about equivalent US \$ 700 million of which some equivalent US \$ 80 million have been unspent at the end of the construction works and which the OMVS wishes to use in the frame of the continuation of its programme.

Regarding the other components of the Regional Infrastructure Programme (Navigation and Energy) whose estimated financial package stands at US \$ and equivalent 900 million, the financing required is actively being sought. Besides, the currently on-going negotiations evidence the readiness of financing sources vis-à-vis our organization whose executive organ, the High Commission ensures the coordination of Fund raising activities.

USEFUL INFORMATION

O.M.V.S.

Senegal River Development Organization

Dakar :

- **HIGH COMMISSION :**

46, Rue Carnot
Tél : 23.45.30

5, Place de l'Indépendance
Tél. : 23.27.77
BP 3152

Saint-Louis :

- **DOCUMENTATION CENTRE**

Rue Duret Sud
Tél. : 61.18.88
BP 383

- **EVALUATION AND PLANNING UNIT**

Ndar Toute Dodds
Tél. : 61.15.82

- **GROUNDWATER PROJECT**

Ndar Toute Dodds
Tél. : 61.15.81

Diama :

- **DIAMA DAM**

BP : 233
Tél. : 61.16.55

Manantali :

- **MANANTALI DAM**

Tél. : 57.31.51