

**INTERNATIONAL CONFERENCE ON REGIONAL  
COOPERATION IN TRANSBOUNDARY RIVER BASINS**

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*THE BENEFITS OF TRANSBOUNDARY WATER RESOURCES  
MANAGEMENT OF RIVER NIGER BASIN*

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***NIGER BASIN AUTHORITY, NIAMEY, NIGER***

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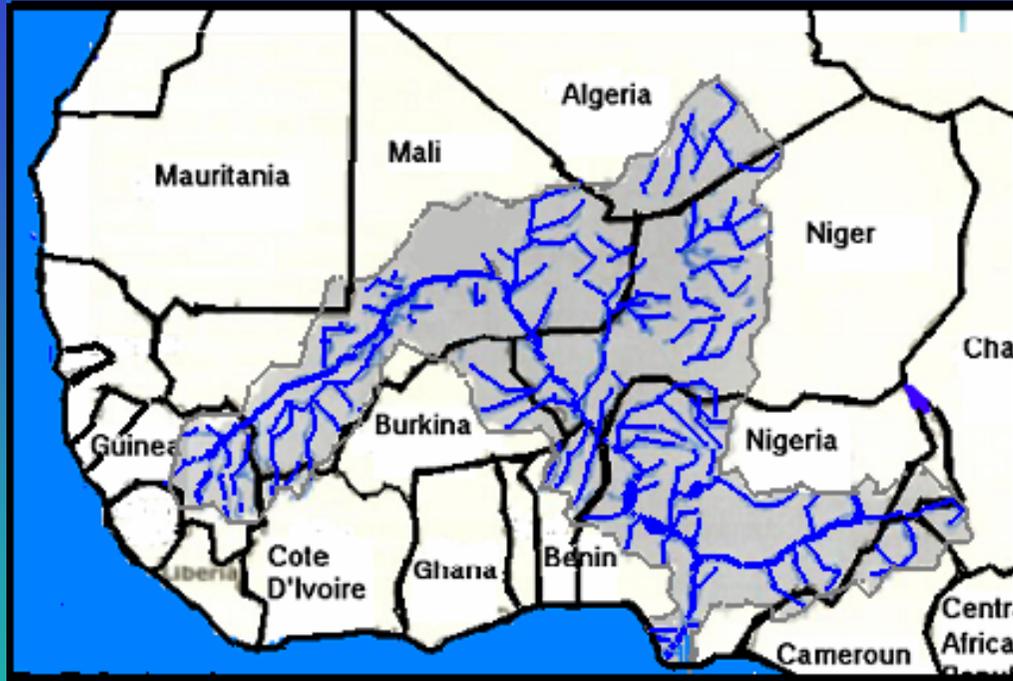
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# 1.0 INTRODUCTION



- 9th largest world river
- 3rd largest river in Africa
- Theoretical Catchment Area = 2 million km<sup>2</sup>
- Active Catchment Area = 1.5 million km<sup>2</sup>
- Length of the river = 4200 km

## NBA MEMBER COUNTRIES AND THEIR PROPORTION IN THE BASIN

Benin (2 %)

Burkina (2%)

Cameroun (4 %)

Chad (1 %)

Cote D'Ivoire (1 %)

Guinea (6 %)

Mali (25 %),

Niger (21 %)

Nigeria ( 32 %)

## 1.0 INTRODUCTION CONT.



**Estimated Basin Population =  
127 million (2004)**

**Growth Rate = 3 %**

**Urban Population = 32 %**

**Rural Population = 68 %**

**Life Expetancy = 49.6 years**

**Income per Capita = Less 400 US/annum**

**Access to Potable Water = 51.5 %**

## 2.0 THE POLITICAL ORIENTATION OF NBA

In 1963, the 9 Countries covered by the river's active basin formed the River Niger Commission (RNC), with the view of fostering cooperation among its members states most especially in use and management of the basin's resources. The RNC was later changed to the Niger Basin Authority (NBA) in 1980 with additional mandates for the enhancement of an effective integrated water resources management and development of the basin, among others.

The mandate assigned to the new Organization includes :

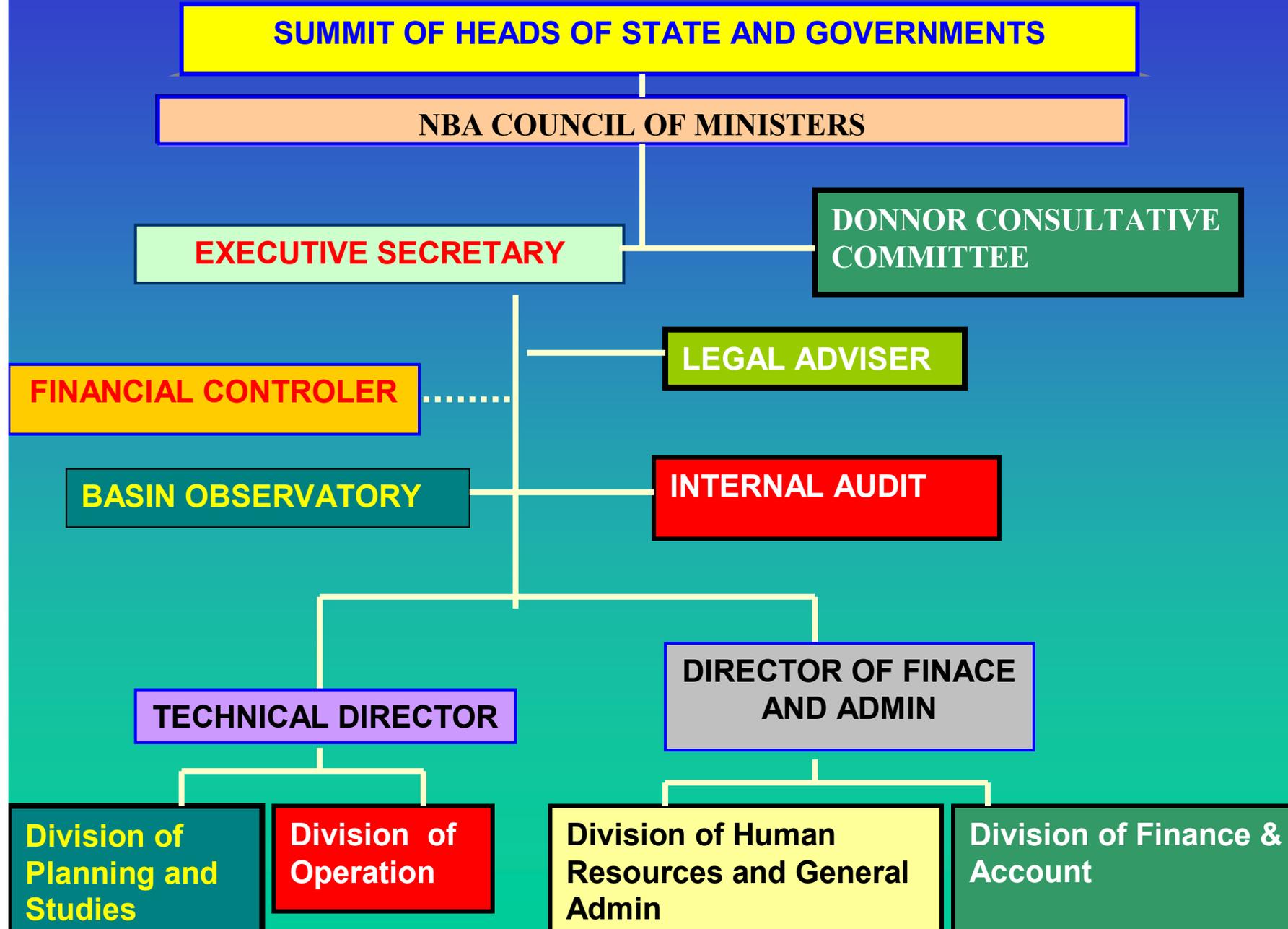
- To promote cooperation among the member countries
- To ensure the integrated development of the basin in all fields notably energy, water resources, agriculture, animal rearing, fish breeding, silviculture, transportation and communications, and industry.

## 2.0 THE POLITICAL ORIENTATION OF NBA CONT.

As an Intergovernmental organisation, the NBA function as follows;

- a. Summit of Heads of State and Governments
- b. The Council of Ministers
- c. Technical Committee of Experts
- d. NBA Executive Secretariat

## 2.2. THE NIGER BASIN AUTHORITY ORGANOGRAM



## 3.0 BENEFITS OF TWRM IN NIGER BASIN

As a result of the continued increasing water and environmental degradation in the basin, the NBA Council of Ministers in its 17th Sessions in Garoua, Cameroun, approved a Three-Year Action Plan (3YAP) from 2000-2002 for the implementation of concrete water and environmental projects by the NBA.

Also as a result of the achievement made in the 3YAP, the Council in their 20<sup>th</sup> Session subsequently approved the Five-Year Action Plan (5YAP) from 2003-2007 and the Shared Vision as a follow up program to the 3YAP.

The 3 YAP and 5YAP programs of activities are centred on the implementation of concrete water and environmental projects under the framework of:

- \* Sustainable development of the land and water resources of the basin
- \* Strengthening capacities within the NBA member countries
  - Sharing resources to provide benefit to local communities
  - Enhancing regional and Cross boarder cooperation
  - Return of International Donor Support and Cooperation

The TWRM projects executed by the NBA with the support of its member Countries and Donor partners can be categorized into

- Ongoing IWRM projects
- Completed IWRM projects

## **3.1 Completed TWRM Projects in Niger Basin.**

### **3.1.1 The implementation of Studies and pilot projects**

These were carried out through the following activities:

- (i) The GEF project on "Reversal of Environmental Degradation Tendency in the Niger Basin" Phase 1.
- (ii) Development of a regional program for the eradication and control of water hyacinth in the basin
- (iv) Pursuit of the study on the development of desertification techniques
- (v) Development of a strategic approach for environmental protection
- (vi) Creation of a socio-economic data bank specific to the planning of the integrated development of the River Niger basin
- (vii) Coordination of navigation activities in the River Niger basin
- (viii) The NBA/UNICEF Biogas project
- (ix) Production and dissemination of the NBA Hydrological Monthly Bulletin worldwide through the Internet.

These Projects were funded by the GEF, UNDP, World Bank, ADF, ADB, UNICEF, NBA member Countries etc

### 3.1.2 Strengthening Capacities within the NBA member Countries

Strengthening of capacity of the NBA member Countries were carried out through

- (i) French and Canadian Government support for IWRM in Niger basin.
- (ii) Establishment of Focal points in each member Country
- (ii) Provision of Technical Training to the Focal points and Technicians from member Countries on the management of Data Collection Platforms and hydrological data storage for the national water resources planning and development
- (iii) Reinforcement of Focal point with operational equipment
- (iv) Modernization of the Documentation Center
- iv) Consolidation of the structure of the Executive Secretariat

### **3.1.3 Sharing Resources to Provide Benefit to Local Communities**

The sharing resources for the benefit of local and rural Communities was carried out through :

- (i) Supply of drinking water to rural communities
- (ii) Promotion of female market gardening
- (iii) Promotion of pisciculture
- (iv) Adoption of the Principle of New Shared Vision

The adoption of the principle of shared vision is also a clear demonstration of the willingness of Countries to share resources for the benefit of the local communities in the basin

### 3.1.4 Enhancing regional and Cross boarder cooperation

a) The TRIB-NIGER project sponsored by the US Government on "Reinforcement of NBA capacity on Conflict Resolution among its Member State" sponsored by the American Government and UNDP.

b) There was immense improvement in the existing relationship and cooperation with regional organizations such as ACMAD and the AGRHYMET. Presently the NBA, ACMAD and the AGRHYMET are involved in the Seasonal Climate and Hydrological Forecasting for West Africa that is now an annual event.

The NBA and AGRHYMET also formed the Consortium for the management of the AOC-HYCOS.

c) The NBA is also in close collaboration LGA, ECOWAS, NEPAD, LCBC, OMVS, and CILSS. It is also in the process of establishment protocol agreement with other River Basin Organisation such as the Zambezi River Authority, which will facilitate inter-basin exchange of experience and improved collaboration.

### 3.1.5 Return of International Donor Support and Cooperation

The 3YAP also enhanced the return of International Donor support for the NBA. Technical and financial assistance were provided towards the realisation of several projects among which are;

(i) Intensification of the Hydroniger IFC hydrological data collection systems, the control and analyses in real time of hydrological data through satellite.

(ii) Development of a regional program for the eradication and control of water hyacinth in the basin

(iii) Development of a project document on silting

(iv) Pursuit of the study on the development of desertification techniques

(v) Development of a strategic approach for environmental protection

(vi) Creation of a socio-economic data bank specific to the planning of the integrated development of the River Niger basin

(vii) Coordination of navigation activities in the River Niger basin

## **3.2 Ongoing TWRM Projects**

### **3.2.1 GEF project on Reversing Land and Water Degradation Trend**

This project is funded by the GEF, World Bank and UNDP with the following objectives;

- Ø To obtain multiple environmental benefits from the strategies of integrated management of land and water resources.
- Ø To reduce and prevent the degradation of trans-boundary ecosystems caused by water
- Ø To prevent land degradation and to protect biodiversity through the strong involvement of the populations on taking decisions relating to the basin.
- Ø To define a trans-boundary framework for the sustainable development of the Niger basin.

Six components including a pilot action program on demonstration and micro-grants were designed to assist the communities in solving environmental problems. The duration is 5 years, July 2004 – June 2009

### 3.2.2 Water Erosion and Silting Control Program

The African Development Fund and African Development ADF/ADB funded this project is to be carried out in Burkina Faso, Mali and Niger for the duration of Five (5) years, June 2004 – May 2005 with the following objectives;

- Ø To safeguard natural resources in the basin on the participatory and sustainable basis.
- Ø To maintain the hydrological potential of the basin and develop its production potential so as to increase food safety and alleviation of the poverty within the rural areas
- Ø To restore/preserve the natural ecosystems and biological equilibriums.

The project components are as follows;

- o Institutional support to the NBA
- o Development of a master plan for environmental protection in the basin
- o Field actions through three national components
  - Anti-erosive management and mechanical and biological fixation of dunes
  - Banks protection and land reclamation
  - Consolidation of organizational, technical and financial capacities of local actors
  - Management and coordination.

### **3.2.3 Support for the Integrated Water Resources Management**

This project was aimed at achieving the following objectives;

- ∅ To consolidate NBA management capacity
- ∅ To develop the integrated water resources management in the basin
- ∅ To contribute to the African mobilization for the Integrated Water Resources Management (IWRM) in the basin
- ∅ To contribute to provide support to the IWRM component of the European Initiative
- ∅ To reduce the vulnerability of populations to low water periods through a sustainable utilization of natural resources in the basin.

The project financed by France and Canada for the duration of 5 years and 12 years respectively has the following components;

- o Component 1 : Scientific and Technical Component (to enhance the hydrological data collection and processing equipment, to update the mathematical model for the simulation of the river Niger, to create an observatory of the environment in the Niger basin.

- o Component 2 : To provide study funds to NBA for the big perimeters
- O Component 3 : Institutional support to the NBA (implementation of NBA reforms)

Funding from Canada (CIDA)

O Phase 1 : Planning for 2 years

-Contribution to the financing of NBA reforms

-- Financing of the multi-sectoral studies in 5 countries including Niger

-- Enhancement of knowledge on water resources (water quality, hydrological monography of the River Niger, etc..)

-- Capacity building for NBA Focal Points

O Phase 2 : Development for 10 years whose program shall be developed during the planning phase.

### **3.2.4 Enhancement of Management of Trans-boundary Basins in Africa**

This project was funded by the European Union for the duration of 5 years, June 2004 – May 2009 and with following objectives :

- Ø To initiate a program in favor of the Integrated Water Resources Management (IWRM) at the level of six (6) trans-boundary basins in Africa, including the Niger basin
- Ø To initiate the implementation of national Integrated Water Resources Management (IWRM) plans.

The components of the project and the related activities are to be defined in the following areas :

- § Favorable institutional environment
- § Mobilization of resources
- § Capacity building
- § Monitoring and evaluation
- § Sensitization and participatory approach
- § Basin plans and action plans

## 4.0 THE NBA NEW SHARED VISION

To consolidate on the gains achieved on TWRM project during the 3 and 5 Year Action Plans, the 7<sup>th</sup> Summits of the Heads of State and Government of the NBA member Countries mandated the NBA to develop a shared vision that will enhance sustainable development of the Niger basin.

The principles and the Shared Vision process was consequently developed by the NBA and was officially launched since December 2002.

As a follow up to this the Conference of the NBA Heads of State and Partners took place on April 26 and 27, 2004 in Paris on the International Partnership for the River Niger basin. This Conference at the highest level of the NBA member States falls under the preparation of a SHARED VISION for the sustainable development of the basin.

The Conference afforded the NBA member States to confirm their political willingness to act together, in a solidarity and concerted manner for the joint development of the resources of the basin and for the international community of development partners under the leadership of the World Bank the opportunity to take the commitment to facilitate the implementation of a rational management of water resources and the ecosystems of the basin. The outcome of this Conference is three folds :

**I.            *The Paris Declaration* signed by the NBA Heads of State and Government relating to the “Principles of Management and Good Governance for a sustainable and shared management of the Niger basin”;**

**II.           *The Cooperation Framework* signed by NBA Partners relating to the necessity to coordinate their interventions so as to support the efforts of the NBA member countries;**

**III.          The consolidation of the Niger Basin Authority so as to pursue together the Shared Vision Process and develop together a common framework of activities necessary for the action of the various actors involved.**

## 4.1 Major objectives of the shared vision

This can be summarized as follows:

- a) Develop a Vision common to all the river Niger riparian Countries and shared by all the stakeholders;
- b) Develop a long term legal and institutional framework favourable to dialogue and consultation for cooperative action among the river Niger riparian Countries
- c) Develop water resources in the Niger basin in a sustainable and equitable manner with a view to promoting prosperity, security, and peace for the populations living in the basin
- d) Introduce a competent management of water resources and an optimum utilization of resources in the basin
- e) Foster cooperation and joint actions among the River Niger riparian Countries for the benefits for all the populations
- f) Alleviating poverty and fostering regional economic integration
- g) Develop and implement an action program for the sustainable development of the River Niger Basin

## **4.2 Steps Towards the Realisation of the Shared Vision**

Besides the Paris Conference the NBA has also taken the following steps for the realisation of the Shared Vision objectives;

### **4.2.1 Implementation of the NBA Institutional and Organizational Reforms**

This was carried out with the recruitment of a Consultant charged with the following activities:

- a) Identification of the sub-structures of the new organizational chart, definition of the functions and positions
- b) Development of the principles for the management of the human resources of the NBA Executive Secretariat; search for profiles corresponding to the positions of the organizational chart; analysis and evaluation of legal and financial aspects
- c) Implementation of the recruitment for the positions of the organizational chart; search for profiles corresponding to the positions of the organizational chart; analysis and evaluation of legal and financial aspects

## **4.2.2 Evaluation of the level of development of the basin**

The evaluation of the level of development of the basin which is continuous shall be implemented as follows;

- a) Evaluation of the situation in each NBA member country through a multi-sectoral study which shall highlight the development problems in the national portion of the Niger basin.

In line with the above, it is envisaged to organize a regional technical workshop from July 13 to 15, 2004 on the implementation of the national multi-sectoral studies

- b) Regional synthesis including the compilation and integration of the nine national studies . This synthesis shall be completed by a macro-economic regional integration study.

In line with the above, it is envisaged to organize in mid November 2004 a regional workshop for the validation of the regional synthesis

- c) Formulation of Shared Vision statement. Definition of the methodology for the development of the Action Plan.

### **4.2.3 Development of a Sustainable Development Action Plan**

This is intended to be carried out through the following activities:

- a) Formulation and adoption of the Action Plan
- b) Preparation of an investment plan based on the Action Plan
- c) Finalization of investment projects based on the investment program.

5.2.4 Search for and mobilization of financial resources for the implementation of the investment program. This will be carried out by the;

- a) Adoption of the Program and investment projects
- b) Holding of a donors round table Conference

## 5.0 CHALLENGES FACING THE NBA

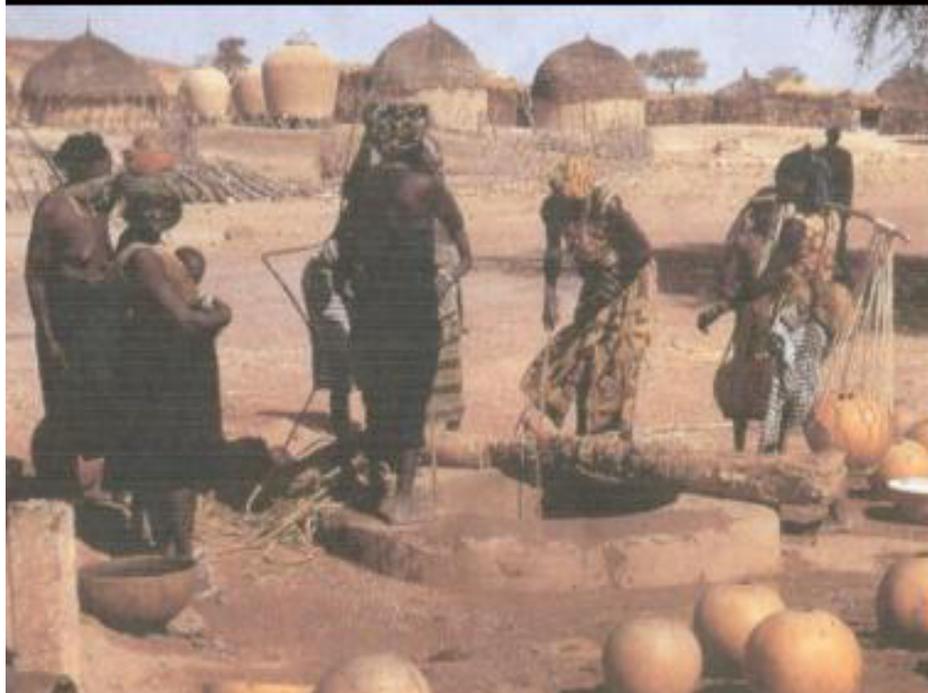
This can be summarized as;

- Physical and Environmental problems
- Political and Socio-economic Problems

### 5.1. Physical and Environmental Problem

- Flow reduction as a result of the impact of climatic changes
- Silting of the river bed of the water streams
- Pollution of various origins (domestic, industrial, craft industry, agricultural, mining)
- Floating plants (water lettuce, water hyacinth, etc...)
- Water and wind erosion

# Hydro-Climatic & Environmental Problems





# Flooding & Siltating



Photo by the Niger Basin Authority (NBA) Hydrological Information Forecasting Centre (Hydrologist IFC), Niamey, Niger Republic



Cas d'une Erosion Hydrique

# WATER WEED ENCROACHMENT



# Socio-economic Benefit of River Niger



## 5.2. Political and Socio-economic Problems

- a) the management of water resources in the basin is made complex because of the insufficiency and the inadequacy of cooperation mechanisms (political and institutional) ;
- b) the reluctance in some cases to put up common interest infrastructure on the national territory of a specific country (issue of national sovereignty) ;
- c) the, sometimes, divergent interests of the countries and the difficulty to reach a basin wide consensus can delay regional integration ;
- d) the difficulty in mobilizing funds for some national projects can be a factor aggravating poverty and the vulnerability of the populations ;
- e) some policies/directives of some development partners do not make it possible to obtain the support necessary for the development of resources in the basin ;
- f) the political instability in the sub-region

Most of these Problems have been addressed in the NBA Shared Vision.

## 6.0 CONCLUSION

The TWRM of Niger basin and its subsequent benefits were achieved through the full participation and consensual cooperation of member Countries, the stakeholders and Donor Agencies with the NBA which have enhanced the socio-economic development in the region.

The gains from the 3 and 5 YAPs informed the development of the new-shared vision through the political willingness of member Countries to act together, in a solidarity and concerted manner for the joint development of the resources of the basin.

It is hoped that the threat of desertification encroachment now facing the basin will also be effectively tackled through the shared vision so as to preserve the river Niger which is also a prevention of water scarcity, potential water conflict and instability in the West and part of Central Africa sub-region that are bases for slow paced socio-economic development.