HARNESSING THE MULTI-DIMENSIONAL BENEFITS OF RIVER NIGER THROUGH TRANS-NATIONAL INTEGRATION

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ABSTRACT

The research worked on how transnational integration of the riparian nations of the River Niger can be used to harness fully the multi-dimensional potentialities of the river. The paper addressed the role of the Niger Basin Authority in achieving the trans-national integration and came up with methods of harnessing the multifarious benefits derivable from the approach of trans-national integration. From the opinion of the paper the multi-dimensional benefits included sustainable water development, harmonized hydroelectric power, improved agricultural productivity, enhanced water transportation, adequate water supply, arbitration of boundary conflicts and tourism.

Keywords: Integration, Niger, River Trans-Boundary, Multidimensional

1.0 INTRODUCTION

The River Niger is the principal River of West Africa and it transverses across Guinea, Mali Niger, Republic of Benin, and Nigeria. The management and development of the catchment areas of the River. Niger is conducted by an international river basin called the Niger Basin Authority (NBA). The Niger Basin Authority harmonizes and co-ordinates the member nations' policies relating to the development of water resources within the Basin. The Basin disallows all forms of indiscriminate and unapproved water related activities by member nations within the Basin. This helps in the preservation and conservation of the quality and quantity of water in the River Niger.

The River Niger possesses a multi-dimensional capacity for agricultural, infrastructural, electric power generation water supply, tourism, fishery, navigation and transportation developments among its member nations. These multi-dimensional capacities can be tapped, harnessed applied and optimized in the development of all member nations through trans-national integration. The

Niger Basin Authority is an organizational instrument readily available and fortified to co-ordinate this much needed integration of nationalities through harmonized policies, prioritization and optimization of infrastructural and industrial developments.

1.1 ORIGIN AND TRANSVERSE OF NIGER RIVER

The River Niger originated from the Guinea Highlands, in south eastern Guinea. The origin of the river name is uncertain, but it is certain that the name is an appellation applied in the Mediterranean World formed at least in the classical era when the knowledge of the era by Europeans was slightly better than fable.

Many European expeditions to plot the river were unsuccessful. In 1788, African Association was formed in England for further exploration of the river. In June, 1796, the Scottish explorer Mungo Bark was the first European to set his eyes on the middle portion since antiquity. On October 24th, 1946, three Frenchmen, Jean Sauvy, Pierre Pouty and Jean Rounch set out to travel the entire length of the river. They started the journey from the starting of the River Niger at Kissidougou in Guineas and reached its end at the ocean on March 25, 1947 without Pierre Pouty who dropped in the expedition in Niamey. In 2005, Norwegian adventurer Helge Hjelland made another journey through the entire length of River Niger.

The River Niger takes usual routes expected of a major river, a boomerang shape that baffled geographers for centuries. Its source is just 240km in land from the Atlantic Ocean but the river runs away from the ocean into the Sahara desert and takes a sharp right turn near the animal city of Timbuktu and heads south east to the Gulf of Guinea.

The River Niger has its source in Guinea Highlands runs in a crescent through Mali, Niger on the border with Benin and through Nigeria, discharging through Delta or the Oil Rivers into the Gulf of Guinea in the Atlantic Ocean. Its drainage basin area is 2,117,700km^2 and it is the third longest river in Africa with River Benue as it main tributary. The River Niger is said ,to be180km long.

1.2 POTENTIALITIES OF RIVER NIGER

Inherently, the River Niger has a lot of potentialities which range from hydropower generation, agriculture, water supply, navigation, tourism, etc.

1.2.1 Water Transportation

The river Niger possesses good depth that makes it navigable and can be easily used by ship for transportation of goods and human beings. Considering the unique position of this river in terms of its trans-national transverse and the link with the Atlantic Ocean makes it a haven of opportunities for transportation. The various inter-connectivity of the national entities of West Africa created by the River Niger makes it a suitable and sustainable link for water transportation. The River Niger flow channels provide sustainable means of transportation. The current dredging of the River Niger from Baro near Lokoja to Warri is a move that will see silt removed from the river channels. The dredging is intended to make it easier for foods to be transported to isolated settlements located deep within from the Atlantic Ocean. The efforts of the dredging will make for the navigability of the river all the year round.

1.2.2 Water Supply

The positions of a River Niger as third longest river in Africa and a trans-national routed river cutting across West Africa cities and nations make it most appropriate as a source of water supply. The river is a surface water which naturally is subjected to high sedimentation of particles, organic materials, faecal and agricultural pollution and this means it can only serve as a source of raw water for treatment plants.

Many treatment plants are being currently located along trans-national flow channels of the river to harness its abundant water as water supply to cater for the fast growing cities around the nations. The availability of groundwater in high concentrations in the aquifers and sandstone basement in many of the areas of the River Niger makes it a good source of groundwater. The development of boreholes around the area had shown high yield all the year round. The flood plain provided by the river created abundant recharge for the aquifers of the surrounding areas.

1.2.3 Tourism

Sceneries around the R. Niger flow channels are highly attractive and natural with its luxuriant vegetation around the banks. This attribute makes such sceneries areas of interest to tourists and

holiday makers. Currently, international hotels and recreational parks are springing up to accommodate tourists and businessmen.

1.2.4 Agricultural Development

Agricultural development cannot be divorced from the water resources. Agricultural practice is dominantly water-based and thrives well under a sustainable water availability. Water is critical to the advancement and development of agriculture. River Niger in its inestimable reservoir of water is instrumental to the agricultural development of its trans-boundary nations. The perennial nature of the river has provided and created an all-year-round agricultural activities in all the nations through which it transversed.

Also, it can be observed that the river has made livestock production which involves herding of cattle, goats and sheep to thrive especially in the upper Niger River. The presence of Niger River, has encouraged the paradigm shift from subsistence farming to commercial farming in many nations.

1.2.5 Hydro-Power Development

The potentiality of the Niger River in electric power generation is enormous and can be harnessed for industrialization and sustainable power generation. Poor power generation has been an albatross to the industrialization and infrastructional development of the West African states through which the River Niger transverse.

In Nigeria as in other River Basin due advantage has been taken by harnessing the massive hydro-electric generation potentialities of the River Niger. In Nigeria, the Kianji Power plant is located on the River Niger in Niger State of Nigeria. It is about 800 kilometer upstream of the Niger Delta where the river empties into the Atlantic Ocean. The Kianji project was meant for flood control, power production and navigation. The Kianji power plant was designed in the 1950s and 1960s but the construction of the civil works started in 1964 and was completed in 1968. As part of efforts at ensuring improved and sustainable power supply, Nigeria is co-operating with the World Bank and other parties on the modalities for their intervention to fast track the possibilities of additional turbines to Kainji to enhance productive capacity.

1.3 Niger Basin Authority

1.3.1 Definition, Origin and Scope

The Niger Basin Authority is an intergovernmental organization in West Africa whose main purpose is to foster co-operation in managing and developing the resources of the Bain of the River Niger. In its dual position of serving both English and French speaking countries, the organization is written shortly in French and English speaking acronyms as ABN and NBA respectively. The N.B.A as an organization was founded in 1964 as the River Niger Commission but it was refounded as the Niger Basin Authority in 1980.

The Niger Basin Authority has its member states as Benin Republic, Burkina Faso, Cameroon, Chad Republic, Cote d'ivoive, Guinea, Mali, Niger Republic and Nigeria. The N.B.A defines its purpose as the promotion of co-operation among member countries to ensure integrated development of resources. The original mission of the N.B.A is the co-operative management of water resources and not limited to River Niger. The organization harmonizes development of energy, agriculture, forestry, transport communication industrial resources of the member nations as it focuses on water and hydroelectric resources.

The NBA has the summit of Heads of States and Government, the Council of Ministers, the Technical Committee of Experts and the Office of the Executive Secretary as its statutory arms.

1.3.2 Niger Basin Charter and Investment Plan

The Niger Basin Charter has its framework in the promotion of Integrated Water Resources Management and this helps in the allocation of water resources between sectors, commitment to maintain the integrity of aquatic ecosystems and establishes mechanisms for the arbitration of disputes between nations. Its investment plans are embedded in the expansion of irrigated agriculture to improve foods security, construction of the Taoussa dam in Mali, and Kandadic dam in Niger Republic and rehabilitation of the Kainji dam in Nigeria.

This Charter was used to co-ordinate the efforts of the NBA in the riparian countries and it was adopted in 2008 under a basin-wide 30 year investment plan and a 5- year priority investment plan.

1.4 TRANS-NATIONAL INTEGRATION

Trans-National Integration is the harmonization of activities among the riparian nations of the River Niger. The trans-national integration produces guidelines and understanding among the nations which will lead to understanding, tolerance and safe operations among the nations that host the River Niger. It is vital since it will help the nations through which the River Niger transversed to pull their resources in the development and management of the River Niger. A full blown trans-national integration will create sustainability and keep the river free from extinction.

2.0 METHODOLOGY

This research established that many benefits can be achieved through the following approaches;

(i) The sustainable development action plan for the River Niger Basin
(ii) Investment Program
(iii) Reversing Land and Water Degradation Trends
iv Siltting Control Program
v Establishment of an observatory for the Niger Basin Environment

i Sustainable Development Action Plan: A trans-boundary action plan which provides strategic frame work for the development of the River Niger.

(ii) Investment Program: is an articulated action-based projects which are common and transboundary in nature.

iii Reversing land and Water degradation Trends, is a method that was geared towards reduction and prevention of trans-boundary eco-system and water degradation.

iv Silting Control Program: This method is aimed at the reduction of the silt build-up in the River Niger.

v Establishment of an observatory for the Niger Basin Environment: This is a method where observatory laboratories and environmental to monitor climatic and environmental changes among the riparian nations of the River Niger.

3.0 MULTI-DIMENSIONAL BENEFITS

3.1 SUSTAINABLE WATER DEVELOPMENT

Due to the fact that the River Niger is one that transverses through many nations there is need for collaboration among member nations to enable all the water projects established on the River Niger and its tributaries to be sustainable. This ensures that projects constructed up-stream do not affect the downstream section of the River. With trans-boundary integration, projects can only be built when the environmental impact assessment of such a project has been conducted with the assurance that its operations will not affect any section of the River Niger. Flooding disasters have been observed to be the aftermaths of water projects established either upstream or downstream of the River Niger.

3.2 HARMONIZED HYDROELECTRIC POWER DEVELOPMENT

With trans-boundary integration, the development of hydroelectric power will be properly harmonized and this will create a sustainable hydroelectric plants that can stand the taste of time. The River Niger is a perennial river with high volume capacity which can provide water continuously for hydroelectric plants.

In 2010, the NBA played a significant role of harmonization when it discussed the construction of three dams upstream viz Taoussa dam in Mali, Fomi dam in Guinea and Kandaji dam in Niamey. These three Multipurpose dams stretching from upper, sub-hydrological reach of Guinea to Taoussa in Mali on the mainstream and further downstream. The Kandaji dam in Niger Republic will have negative impact on Nigeria which is situated downstream.

3.3 IMPROVED AGRICULTURAL PRODUCTIVITY/ MARKETABILITY

Improved agricultural productivity can best be achieved under an enhanced irrigational activities while market for agricultural products can be accessed through water transportation. Trans boundary integration along the axis of the River Niger will play a major role in upgrading agricultural funding through national co-operation with international bodies. Agricultural products earn more markets through understanding and exchange of products made possible through the water ways of the River Niger among its riparian nations. Since 2004, several major

contracts have been signed with World Bank, African Development Bank, European Commission, France, Canada, Germany and Global environment funds.

3.4 ENHANCED WATER TRANSPORT SYSTEM

Water ways along the waters of the River Niger are being upgraded through dredging and desutation. The water ways of the river are easy means of transporation among the nations of the West African sub-region. The water ways of the River Niger are unique for transportation because of its longitudinal cutting-across West Africa and linking the Atlantic Ocean at the Delta Rivers of Nigeria.

In 2009, the dredging of the river downstream from Baro to Warri was expected to commence and it was expected to remove silt and other sediments from its channels. The target in this effort is to make the River Niger navigable all-the-year-round. The dredging is expected to benefits riparian communities from Forcados in Delta to Baro in Niger State of Nigeria. The River Niger water ways dredging will make it possible for barges and ships weighing 3,000 tons to travel smoothly from Baro in Niger State to Warri in Delta State. This phenomenal development will increase economic activities in the transportation of goods and services to the hinterland and neighboring member states like Niger Republic.

3.5 PRESERVATION OF THE RIVER

Trans-boundary integration will aid to provide guidelines for activities and operations along the axis of the River Niger. Industrial and human activities most often impact negatively on the existence of any river. It is also known that heavy industrial discharges rich in nitrogen can encourage the growth of aquatic plants leading to eutrophication in rivers. The regulation of activities and operations through transnational understanding will preserve the river and equally protect the nations downstream from negative impacts such as pollutions and abuses. Countries along the River Euphrates are grapping with its diminishing waters and increasehuman pressure on its use.

3.6 ADEQUATE WATER SUPPLY

The River Niger provides an adequate water for the West Africa States with its flood plainsbeing fully recharged with the groundwater. Treatment plants can be constructed with the

intent of drawing raw water from the river. Boreholes constructed in the communities near the river have high yield and this has been complimenting water supply from it.

3.7 ARBITRATION OF BOUNDARY CONFLICTS

Issues surrounding the River Niger were hinged on water but later water – related environmental and economic problems started and the sharing of this increasing scarce resource has now become a potential cause of conflict. The target of supply of water to about 100m raparians inhabitants are being threatened by lower pluviometry, inappropriate agricultural production and livestock farming techniques, waste discharges and various forms of pollution. There is tensions between users and between states due to population explosion among the riparian communities. The transnational integration provides a forum for the settlement of such conflicts with common goal and vision.

Currently, the genesis of potential conflicts and fights in many sections of the world emanate from trans-boundaries rivers. An example is the simmering dispute on the control of the water of the Nile and countries are fighting with those upstream for the use of the waters. Iraq being the outlet of the River is facing the unfortunate dwindle of the river due to increased capturing of the river upstream especially by Turkey, Iran and Syria who are taking volumes of the river.

3.8 Tourism

The riparian nations of the River Niger possess the geologic formation that presents attractive sceneries in its landscape. In Nigeria, at the confluence of River Niger with River Benue where plateaux geology is prevalent there are highly aesthetic scenery and provides landscape for tourism, holiday makers and excursions by institutions.

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Recommendations

Trans-boundary integration will play significant roles in the facilitation of realizing the multidimensional benefits of the River Niger. The River Niger is an exceptional river of high potentialities with an expansive trans-boundary network in the sub-continental region of West

Africa. The integration of the riparian nations will in no small measure boost their economy and at the same time provide co-ordinated activities and operations in the river and among the nations.

4.2 RECOMMENDATIONS

With the findings in this research, it is recommended that;

(1) The Niger Basin Authority should promulgate laws and guidelines which will streamline the activities and operations among the riparian communities.

(2) All the development projects associated with the river should be harmonized with an articulated EIA.

(3) Considerations should be given to all upstream activities in the river to minimize adverse consequence in the downstream.

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