

WATER INFORMATION MANAGEMENT AS A LIMIT OF WATER GOVERNANCE IN THE SUB-SAHARAN AFRICA: THE CASE STUDY OF THE REPUBLIC OF BENIN

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ABSTRACT

Reducing poverty and enabling people to improve their lives should be the central focus of any discussion of “Integrated Water Resources Management” (IWRM) in developing country, mainly in the sub-Saharan Africa. But to complement this challenge countries are faced on one side with the need of developing other sectors which requires a mobilization and an efficient use of water says in agriculture, energy, cattle breeding, industry, and on the other side with the necessity to preserving natural resources.

For tackling these series of problems, African governments do create several ministries and agencies related to water, energy, agriculture, ... without serious co-ordination. While, integrated water management requires integrated information. In this complex system, a well organized water resources database is extremely difficult. It results in highly fragmented approaches to the management of the sector. Researchers and managers striving for integrated approaches including the development of indicators are on the horns of the dilemma of either spending too much time on searching and retrieving fundamental data or alternatively omitting relevant information.

The present paper which is based on the case study of the Republic of BENIN (west Africa) aims at showing how the multiplicity of institutions and the sectoral option of water and related water management constitutes a serious constraint of water governance in the sub-Saharan Africa by limiting access to data and indicators, indispensable for rational decision-making and cost-effective management.

INTRODUCTION

Recent researches on the attainment of water security have increased attention given to the role that effective governance plays in achieving Integrated Water Resources Management (I W R M) .

Water governance is however, a multifaceted issue: it covers many sectors – economic and financial , law and justice , public and private. Managed this multifaceted issue need proper and efficient information which is depended on the management of water institutions which provide and constitute the source of information. But the integrated information source management needs water and related water integrated institution promotion . Unfortunately ,water and water related environment ,in the Sub – Africa , is characterized by the fragmentation of water institutions . This situation constitutes a serious limit for information (indicators ,data's) production and then a crucial constraint for water governance . The case study of the Republic of Benin , demonstrates how overcoming fragmentation of institution should be a main way of effective water governance by providing a good information system.

OVERVIEW

The deteriorating living condition of million of people in Africa serves as a constant reminder to African governments to exercise caution in predicting the future possibilities and accomplishments of the present theories and approaches to development . As solution, they (government) do create several institutions such as ministries , agencies related to different economic and social sectors : water , agriculture, energy , fishery, industry...The development was seen with a sartorial vision . The price tag included environmental problems such as pollution , water scarcity , erosions, climatic crisis...

But , in the last two decades , global efforts to seek integrated approaches and sustainable solutions to human development problem , have increased . The world has debated the main issue related to human development problems, and there is a consensus that water is a key factor in sustaining human life . Furthermore , it is now accepted that Integrated Water Resources Management (I W R M) is essential to address the problem of security and pollution of water resources .

But I W R M and good governance of water promotion are based on integrated information on water resources. The information provided should be linked to water resource development .

Information is provided by the organizations involved in the water and water related domain . Consistent and relevant information on the status of water resources is indispensable for it national and cost effective management .

But , how to access to information and indicators when water monitoring is conducted by a wide variety of organizations with different missions in the same country ? Ministry of agriculture , ministry of water , ministry of environment , ...intervene in the water sector without any coordination . In this complex system , a well organized water resources database is extremely difficult , whereas it constitutes a limiting access to information and then a serious constraint of water governance .

BACKGROUND TO THE IMPORTANCE OF INFORMATION ON WATER

In 1992 , the governments assembled at the earth summit in Rio de Janeiro called for access to information in principle 10 of the Rio declaration .

Also , there is a wide consensus that the key elements of effective water governance include accountability and transparency . And the transparency is lead to the quality and access to information , integrated information , which also depends on the institutional environment .

BENIN AND WATER GOVERNANCE

The Republic of Benin is a small country with about 6 millions inhabitants and situated in West Africa . The country is very watered and shared between tropical climate in south (1300mm of rainy)and sahelian climate in the North (700 mm of rainy) .

The water resources disponibility could be summarized as:

- Surface water (31.725 millions m³)
 - Seven catchments
 - Nokoue lake : 180 km²
 - Aheme lake : 100 km²

- Groundwater :
 - Sandy clay (80 – 90% of the territory) :1120millions m³
 - Coastal Sedimentary basin : 600 millions m³
 - Kandi Sedimentary : 125 millions m³
 - Niger and Pendjari basin : 25 millions m³
 - Total annual disponibility per capital (1995) : 5.625 m³
 - Total annual disponibility per capital (2025) :2.293m³

Altogether , the country is not confronted with the problem of disponibility but with an efficient management of the resource . This management supposes a good allocation of the resource . Then , water allocation depends on relevant information regarding actors , resource availability , users needs etc...

Now , in all system , institutions of management play the main role in information supply . Then relevant information depends on a good institutional organization , and integrated water management supposes then integrated information from integrated institutional organization .But , like all Sub – Africa region , the republic of Benin is characterized by a fragmented institutional organization in the water resources sector , which limits access to relevant information and constitutes then a crucial problem for a good governance .

INSTITUTIONAL ASSESSMENT

With regard to the institutional aspects of water management in the republic of Benin , an essential lesson should be learnt : the institutional environment is very fragmented with no coordination .

In the fact of matter , the water institutional environments dominated by the public sector . They are :

- Ministry of Mine , Energy and Hydraulic (MMEH) .

The MMEH has under one's wing the Hydraulic Department (DH) and the Benin National Water Supply Society (SONEB).

The DH is in charge of water and water related activities regulating . It is in charge of inventory , evaluation and mobilization of water resources and securing rural areas with drinkable water .

The SONEB is in charge of water supply in urban areas .

- Ministry of Public Health (MSP)

The MSP has under one's wing the Hygiene and Primary Sanitation office (DHAB) . It is commissioned to implement Sanitation programs , to define Sanitation plans and standard , to control water hygiene and pollution .

- Ministry of Environment , Habitat and Urbanism (MEHU)

The MEHU is in charge of defining the national policy related to environment , habitat , urbanism sanitation , land management . The control and the promotion of renewable natural resources management are the an other mission of MEHU . Its main institution concerned by water resources are : (i) the Environment Department which secures protection to rivers , soils , and coasts ; (ii) Urbanism and Sanitation Department is in charge of conception , program planning and coordination of government interventions related to sanitation .

- Ministry of Agriculture , Breeding an Fishing (MAEP)

Here , three departments are distinguished : (i) the department of Rural Engineering is ability to elaborate the national rural hydraulic program in one hand , and to conduct studies and experimentations in pastoral , agricultural and villager hydraulic ; (ii) the Forestry and Natural Resources Department intervenes in rationalizing the exploitation of water , soils forests , flora and fauna , (iii)the Fishing Department is commissioned to determine the economico – technical conditions for fishing .

- Ministry of Transports , is in charge of the National Meteorological Service, which is commissioned in collecting , transmitting and managing of meteorological data .

In addition to all , exist inter – ministerial and multilateral institutions. Regarding the international basins , the republic of Benin is waterside of four (04) international basins : Niger river basin , Volta basin, Mono basin and Oueme basin .The Niger river basin is managed by the Niger Basin Authority (NBA) , whereas there is no common management structure between the republic of Benin and it bordering states relating to the other basins . Furthermore , since decentralization is achieved , districts are ability to supply people with drinkable water .

RESULTS AND CONCLUSION

The evaluation of the institutional environment which provides information on water resources , shows the fragmentation and the duplicity of institution abilities . Institutions under different Authorities share same prerogatives . The analysis of responsibilities and function of different institutions show , unfortunately , that the diversity of actors misses right distribution of abilities . In contrary , they work separately and contradictorily .Where from, difficulty to identify which institution produces which data , indicator , ...or in the better way, researchers or other users assist to the duplicity of the information produced .

Although the information available today is more comprehensive than at any time previously , it falls far short of management and policy needs . Information is being collected in abundance but the efforts are after poorly coordinated . Scales diverge , baseline data are lacking, time – series are incomplete , differing measures defy integration , and different experts may not know of each other's relevant findings . To overcome this situation and ensure effective water governance , some needs and challenges should be identified :

- As challenges : (i) correct inappropriate legislative framework ; (ii) overcome fragmentation of institution , (iii) improve transparency ;
- As needs : (i) Reform / Enhance existing institutional set – up , (ii) Revise national policies . strategies and plans to provide for smooth integration , (iii) clearly delineate responsibilities and mandate to avoid domination by single sector entities (iv) strengthen river basin level management systems .

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