

INTERNATIONAL RIVER BASIN ORGANIZATIONS IN SUB-SAHARAN AFRICA

A PERFORMANCE PERSPECTIVE

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1. Background

1.1 In the Water Resources Management Policy Paper, the Bank makes two important statements relating to River Basin Organizations (RBOs), namely the Bank:

- will play a more proactive role in helping countries improve the management of shared international waters
- is ready, through technical, financial and legal assistance, to help governments strengthen institutions, such as RBOs, to address transnational water management affairs.

1.2 As part of its program to implement its new policies, the Bank is undertaking a range of actions including the preparation of regional policy papers, guidelines and papers on best practices, institution building and strategy formulation. It is in this context that the Africa Region has embarked on a review of the functions, performance and future perspective of RBOs.

1.3 It is intended that this performance study of RBOs will form one of the building blocks of the water strategy paper now in course of preparation by the Africa Region and at the same time it is hoped it will prove useful in operational work both within the Bank and among ESAs in general.

2. RBOs visited by the Bank Mission

2.1 The following RBOs and related regional organizations were briefly visited by the mission.

West Africa:

- Lake Chad Basin Commission, Ndjamena - LCBC
- Niger Basin Authority, Niamey - NBA
- Organization pour la Mise en Valeur du Fleuve Senegal, Dakar - OMVS
- Organization pour la Mise en Valeur du Fleuve Gambie, Dakar - OMVG

Central Africa:

- Kagera Basin Organization, Kigali - KBO
- Energie des Grands Lacs, Bujumbura - EGL and its parent organization Communauté Economique des pays des Grands Lacs- CEPGL

Southern Africa:

- SADC-ZACPLAN (Zambezi Action Plan) co-ordinating unit at ZESCO (the Zambia Electricity Supply Commission), Lusaka - SADC/ZACPLAN unit.

- Lesotho Highlands Development Authority, Maseru - LHDA
- Zambezi River Authority, Lusaka - ZRA
- Department of Water Affairs, Pretoria - DWA

3. The Water Development Potentials

3.1 All 41 countries in continental sub-Saharan Africa share the resources of international rivers and therefore the development of surface waters depends essentially on international collaboration.

3.2 Development has hitherto focused largely on hydro-electric power but, now, in southern Africa emphasis is moving towards multi-purpose projects for domestic, industrial and irrigation supplies. An Exception to this generalization is the Sudan, where irrigation has always been the priority need.

3.3 The surface waters of sub-Sahara Africa, taken as a whole, are remarkably undeveloped. Of a total power potential of some 300,000 MW., no more than about 5 per cent has been harnessed. Of the irrigation potential amounting to about 20 million hectares, only about 5 million hectares has been developed and over one third of that is in one country, the Sudan.

4. Main Characteristic of Sub-Saharan African Rivers

4.1 The major rivers have six general characteristics that influence their mode of development and have an impact on international collaboration:

- i) Concentration of run-off is largely limited to mountainous and highland areas. Downstream users, often in dry climates, are thus very dependant on the actions of upstream riparians. An exception to this generalization is the humid zone of West Africa in and around the Zaire basin.
- ii) The seasonal and annual river flows are subject to wide variations. Over this century, the 7 year moving average has varied by a ratio of as much as 2:1. Year to year variations in the flow of perennial rivers is in the range 3.5:1 to 10:1. These wide variations call for large storage reservoirs.
- iii) Perennial water courses that form the main stems and some tributaries are very widely spaced. This imposes limitations on the extensive use of surface waters for domestic and industrial purposes. On the other hand, given large reservoir storage, the rivers can provide good poles of production for hydro-electric power.
- iv) Surface waters are generally of good quality with low mineralization. Biological pollution is often high yet, essentially local.
- v) With the notable exception of the alluvial plains of the Nile basin and the inland delta of the Niger, there are no extensive entities of irrigable land that are commendable from the rivers, as found in Asia. The irrigation potential, at 20 million hectares, is therefore modest and should be exploited with care.

- vi) With the paucity, of good perennial tributaries, the best opportunities for water resource development generally lie along the main stems of the large rivers. Such development is lumpy and often beyond the resources of a single state. There is a need for international collaboration in project implementation, to share the "costs" of common "works".

5. The several forms of River Basin Organization and their various objectives

5.1 There are three broad categories of organizations dealing exclusively or partly with international water affairs:

- Those focussed on the development of water resources within defined river basins or part thereof. (LHDA, OMVS, OMVG, ZRA, Komati Basin and NBA)
- Those covering water and a range of other activities such as agriculture, energy, transport, fisheries and forestry (LCBC, KBO, EGL)
- Overarching organizations whose mandate includes water resource development and other activities throughout its member states (SADC and, to a lesser extent, CEPGL - which is the parent of EGL)

6. General Objectives and Past Performance

6.1 The all embracing objective of the several RBOs reviewed by the Mission is:

to promote studies and the construction of works that will lead to an integrated, economically sustainable and technically sound development of the water resources of a river basin.

As part of that role, some RBOs have a mandate to develop formulae for the equitable sharing of waters.

6.2 The performance of RBOs varies widely from almost complete failure to success. In the past the main elements for successful performance have been:

- real need for development with an emphasis on socio-economic benefits rather than on political aspirations
- well focused and technically sound objectives
- strong commitment by member states
- few country members
- emphasis on construction work rather than on planning
- active support from ESAs.

6.3 In most cases, with the notable exception of Kariba dam project on the Zambezi, it is too early to enter into any serious evaluation of benefits. For major investments such as those of the OMVS it will be many years before the overall regional impact can be judged.

The report prepared by the Mission discusses the above elements of past successes. Perhaps the most important observation is that emphasis on construction has led to commendable achievements in the implementation stages of major projects (as with OMVS dams, Kariba dam and the current phase of the LHDA) and this is partly attributable to the narrow and specific objectives characterized by a construction program. By contrast, planning involves a series of political decisions which are often unduly influenced by national interests rather than on objective consideration of the real benefits the project will generate.

6.4 Among the least successful RBOs, when viewed against the general objective stated above are the NBA, LCBC and OMVG. They have few tangible achievements to show for the efforts that have gone into these organizations over the last 10-20 years.

7. A Future Perspective

7.1 In the first few decades the objectives in the development of international rivers in Africa have been multi-purpose in the northern and southern regions and predominantly for hydro-electric power in the central regions. This trend is likely to continue but with a growing emphasis on domestic industrial and irrigation water in southern Africa. Navigation has never assumed much economic or commercial importance, except in limited situations such as the lower Niger and Zaire rivers, and is unlikely to do so.

7.2 Rapid demographic growth, poor land resources, unfavorable climatic conditions and a paucity of financial resources lead to a fragile environment in much of Africa. Environmental factors have been given prominence in the mandates of most RBOs but have often not come to the forefront having been subsumed in the general lack of progress. However, there is now a general recognition of the need for a more thorough treatment of the environmental factors (OMVS, LHDA).

7.3 The Long Term Perspective Study (LPTS) for sub-Saharan Africa carried out by the World Bank in 1989 put forward an ambitious target growth rate for agriculture of 4 to 5 per cent a year - twice what has ever been sustained in the past. The LPTS rightly stressed the need to create the right enabling environment which, among other things, demands institutional building and human resource development on an unprecedented scale. The mission, in its report, has referred to several important weaknesses in the enabling environment in which RBOs have to operate.

7.4 The ultimate objective of any RBO must be directed to the development of a specific potential to meet clearly identified needs. Wide, ambitious mandates, extending across non-water related sectors and into areas outside the river basins concerned should be avoided. Over diversification has led to dilution of effort and confused programs.

7.5 RBOs should concentrate as much as possible on projects of regional interest. They do not have any visible comparative advantage to pursue national projects.

7.6 The structure of RBOs varies considerably according to their mandate and financing arrangements. For example for the construction of "common works" a single executing agency is the preferred solution (OMVS, OMVG and ZRA). Where the works are owned by the country in which they are sited, even if jointly financed, a single executing agency is again appropriate (KOMATI). However where each riparian owns and finances the works situated on its territory it is logical to create one executing agency for each riparian state (LHDA).

7.7 Although in most cases the general structure of governance of RBOs is satisfactory, there are several instances where it is not put to good use owing to a lack of commitment by member states and a failure to provide financial support.

8. Recommendations

8.1 The report of the Mission presents a number of general and specific recommendations of which the following are the most salient:

8.2 Since most of the reliable surface water resources of sub-Saharan Africa occur in international rivers there is a strong case for ESAs to continue to give support to RBOs. There is however a case for ESAs to be more proactive and persuade decision makers that RBOs must focus on real needs and limited objectives which can be implemented within a reasonable time frame. Without clearer focus the present climate for donor fatigue is likely to persist.

8.3 The type of support required from ESAs varies widely. For individual RBOs the supporting requirements may be summarized as follows:

LHDA	-	environmental studies
OMVS	-	continued support for management studies, strategic planning and better use of the "common works" as now built
OMVG	-	planning
ZRA	-	capacity building and, ultimately, capital funding
NBA	-	complete in depth diagnostic evaluation
LCBC	-	review of mandate
	-	technical assistance
	-	human resource development in planning
KBO	-	review of objectives
	-	relative role of EGL
EGL	-	examination of its possible role as a river basin planning organization
SADC	-	continued support in its current and proposed activities in water affairs.

8.4 There is a general need for RBOs to build up planning capacity but at the same time avoiding the creation of a large bureaucracy for a function that does not offer long term employment for more than a few personnel.

8.5 Finally it is recommended that a better mechanism is established for collaboration between the ESAs involved in supporting RBOs. A concerted effort should be made to address some of the issues raised in the report in a practical manner, particularly in respect of some of the weak RBOs and those that have lost direction through an array of political considerations.