



**Lessons and Questionings in
the Process of IRWM Plan Development
of PAWD-I in Mali and Senegal**

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This publication has been made possible by the funding from the European Commission and Global Water Partnership (GWP).

Published by : GWP/WA, Ouagadougou, Burkina Faso



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ISBN : 978-2-918639- 02-2 - August 2009

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Contents

Abbreviations and Acronyms	iv
Acknowledgment and thanks	iv
Preface	vi
Summary	1
INTRODUCTION	9
I. CONTEXT OF WATER RESOURCES MANAGEMENT	12
The legislative and regulatory framework :	12
The institutional framework.....	13
The economic and financial framework.....	13
II. INITIATION OF PROCESS OF IWRM PLAN DEVELOPMENT.....	15
III. VISION AND POLITICAL COMMITMENTS.....	18
IV. MAPPING OUT/SITUATIONAL ANALYSIS	20
4.1. Purpose of the "Mapping out" stage	20
4.2. Problems of involving the players	21
4.3. Linkages with the Reforms in progress and Harmonization with the other Initiatives	22
4.4. Problems of Capacity building of Players in the Water Sector.....	23
V. STRATEGIC ORIENTATIONS OF IWRM ACTION PLAN.....	24
VI. IWRM ACTION PLAN.....	25
VII. IMPLEMENTATION OF IWRM ACTION PLAN.....	28
VIII. MONITORING -EVALUATION OF THE IMPLEMENTATION OF IWRM ACTION PLAN	30
CONCLUSION AND RECOMMENDATIONS	31

Abbreviations and Acronyms

ABFN	:	Niger River Basin Agency
CIDA	:	Canadian International Development Agency
ECOWAS	:	Economic Community of the West African States
WAC/IWRM	:	West African conference on Integrated Water Resources Management
IWRM	:	Integrated Water Resources Management
GIRENS	:	Niger Upper Reach Integrated Water Resources Management
GWP	:	Global Water Partnership
GWP/WA	:	Global Water Partnership / West Africa
OMVS	:	Organization for the Development of the Senegal River
NGO	:	Nongovernmental organization
IWRM Plan	:	Action plan of Integrated Water Resources Management
CWP	:	Country Water Partnership
PROSEA	:	Sector wide Water and Sanitation Programme
SP/IWRM Plan	:	Permanent secretariat for IWRM Plan implementation

Acknowledgment and thanks

This study was carried out by Global Water Partnership West Africa in collaboration with the Directorate for the management and planning of Water Resources (DGPRES) in Senegal and the National Directorate of Hydraulics (DNH) in Mali. The study was done by Mr. Adama DIARRA, consultant and water expert (Mali) and Mrs. Mame Dagou DIOP NDIAYE, consultant and water expert (Senegal). The regional synthesis document was drafted by Mr. Jérôme THIOMBIANO, water expert. The consultants collaborated with water actors who demonstrated a keen interest and a total availability.

The job was done under the effective coordination of the Executive Secretariat of GWP West Africa.

We would like to extend our sincere thanks to all the water sector partners, consultants and stakeholders for their availability and warm collaboration.

We want to express our gratitude to all those we do not nominate here for their collaboration.

We would like to profit from this opportunity to thank the various financial partners without whom the work wouldn't be done specially the Canadian International Development Agency (CIDA)

Our thanks go to the European Union Commission and to Global Water Partnership for helping print the document.

Preface

Water is a very important issue in West African countries and particularly in Sahelian countries. It is acknowledged that water is essential to economic and social development, and good governance of the resource is a must not only for decisions makers who have an obligation of means but also and mostly for every citizen who must adopt good behaviors in order to ensure the sustainability of the resource.

To help in changing behaviors, reforms are required and planning is an important element of these measures of reforms. In the reflections, Integrated Water Resources Management (IWRM) came out as one of the approaches to reach water good governance. In 2002 in Johannesburg, countries commit themselves to develop national action plans for integrated water resources management.

In the framework of the support required from the international community, the Canadian International Development Agency accepted to support GWP initiative called Program for Africa's Water Development that aims at supporting five African countries in the development process of their IWRM plans. Mali and Senegal benefitted from this initiative which was a support to a government program for the IWRM Plan development. The collaboration state of mind of all actors mainly of governments which has characterized the process allowed GWP to achieve with great satisfaction part of its mission that is to support countries in the sustainable management of their water resources. These processes have been completed and this document aims at giving an overview so that what was done in Mali and Senegal can help other countries that will have to undertake an IWRM planning process. The two studies of Mali and Senegal form with that of Burkina an integral part of a series.

These documents aim at giving all water sector actors (professionals and non professionals) elements for the orientation of the actions undertaken in some countries in West Africa.

We hope that these studies capitalizing these experiences will serve as catalysts for sustainable development.

Hama Arba Diallo



Chair GWP-WA

Summary

In spite of the significant technical and financial support actions carried out at the global level by the GWP and other specialized structures in the field of water, it should be recognized that there remain many blurred areas, in particular in the developing countries of the West African subregion, there is urgent need to proceed with IWRM operational phase in the various countries. Indeed many countries that used the financial support of development partners engaged in IWRM process, however real difficulties remain as for "how to implement IWRM at the ground level " in a context of developing country with limited financial resources and with most of the population (at least 40%) living below the poverty line.

In this context, five African countries (Mali, Senegal, Kenya, Malawi and Zambia) received in 2004, the support of the Canadian initiative for the development of Africa and water management (CIDA), in their development processes of Action plans of Integrated Water Resources Management. This process used the subregional dynamics of the ECOWAS Member States. Indeed, to take up the challenge of poverty, the ECOWAS Member States implement policies and strategies in order to accelerate growth and to reduce poverty in agreement with the ECOWAS vision and the West African Vision for water, Life and environment for 2025. From this point of view, the aforementioned countries prepared a document on "West Africa Water resources Policy " which after adoption by the Council of Ministers of the aforementioned institution, will serve as reference document both for the Member States, the basin organizations in the subregion, and regional NGOs involved in water resources management.

Context of water resources management: Mali and Senegal, are agricultural countries of the Sahelian zone which was severely affected by the effects of drought of the Seventies, and which revealed the vulnerability of countries in this zone vis-à-vis a largely deficit and spatial-temporal irregular rainfall. In spite of a restrictive context at the physical level, water resources management in these countries remained primarily sector wide, and it would take the early 90s, with on the one hand the development of awareness of the water problems in each country and on the other hand with the 1992 conference of Rio de Janeiro, to notice strong commitments of the political powers of the Countries, for IWRM implementation in their respective countries. The two countries show similarities of climatological factors influencing the contributions in water resources, which depend primarily on rainfall. The other significant elements of the context of water resources management relate primarily to: (i) the legislative and regulatory framework (i) the institutional framework; and (iii) the economic and financial framework.

In Mali, the actual legislative and regulatory framework at the beginning of the process of IWRM Plan development is more enabling, because the existing Code of water takes into account the IWRM fundamental principles (subsidiarity, dialogue and involvement of all the players and use of economic and financial tools for sustainable water resources management). In Senegal, on the other hand the actual legislative and regulatory framework at the beginning of the Process of IWRM Plan development is more restrictive, because the existing Water Code, which goes back to 1981, is no longer adapted to the modern organization of the country and does not meet the socio-economic development ambitions any more.

In Mali as in Senegal, the institutional framework was worked over the time and thanks to specific events that drew awareness of the players of the water sector in each country of the water related issues, issues that strongly weighed on the successive policies as regards water. Thus, the institutional framework of the water sector in the two countries is characterized at the beginning of IWRM process, by a concentration of all the water related prerogatives in the hands of the State, which does not associate enough the other players of the water sector.

Finally, the economic context in Mali as in Senegal is characterized by a strong dependence of the water sector on external financial resources whose level reaches at least 85%, against only 15% for the national resources. In this situation, water is not funding water yet and the State with the support of external contributions offsets the incapacity of players to ensure the planning, funding and management of the hydraulic works.

The phase of initiation of IWRM Plan development : In Mali as in Senegal, two groups of exogenous and endogenous factors concomitantly played in the phase of initiation of the process of IWRM Plan development and except for few differences, the two countries showed similarities. Indeed, at the international level and for exogenous factors, the two countries actively took part in all the international meetings on water resources and the West African conference on integrated water resources management (WAC/IWRM) was particularly decisive in the engagement of countries of the subregion to implement IWRM promptly. For internal factors, one should highlight (i) the existence of crucial nationwide problems as regards water ; (ii) the existence of an essential political will to support an initiative of nationwide and transborder importance ; and (iii) the existence of a "*critical mass of players involved in water resources management* " being fully aware of the issues related to water resources in the country programmes of development and which "advances" the implementation of IWRM process.

At this phase of the process, the elements below deserve a very careful attention, because on their appropriate consideration, will depend mostly, the success of the

process of IWRM Plan development. This is about : (i) the need to have permanently a project qualified multi-field team ; (ii) synergy to be sought between competences in the public and the private sectors ; (iii) the institutional anchoring of the process implementing structure ; and (iv) clarification of the role of driving players : the Government and the CWP.

The phase of vision and political commitments : Political commitment is unquestionably the most significant factor which will : (i) induce the decision to undertake an IWRM process in the country ; (ii) trigger the mechanisms for the effective starting of the Process of IWRM Plan development ; (iii) maintain the engagement and the dynamics of the process throughout the IWRM Plan development; and (iv) finally constantly activate the tools for the implementation of actions envisaged in the adopted IWRM Plan. It is fundamental in these conditions to figure out "in which conditions, political commitment is effective" or in other words, "what justifies political commitment for an IWRM process in a developing country ".

The analysis of this questioning relates to the process external and internal factors. External factors reveal that the international community invested itself a lot in the promotion of water governance at the global level, with the adoption of IWRM as appropriate vision. From this point of view, many international meetings on sustainable management of natural resources including water, contributed to this awareness. The internal factors indicate that pressing demand of the populations for hydraulic works, explain the special attention of the political decision makers with respect to these investment plans unlike an IWRM process described as "*software*» programme.

Under these considerations, it is legitimate to raise the question to know if it is not more relevant to couple IWRM process with the realization of hydraulic investment plans, in order to offer visibility to IWRM and especially to use the constant political commitment, without which the process is doomed to fail.

The situational analysis/ Mapping out stage : The situational analysis or "*Mapping out* " stage in the Process of IWRM Plan development is probably the most complex stage and which deserves a very thoughtful attention, because on its effective execution will depend the contents of proposals for a IWRM Plan action which is actually a response to the issues identified during the situational analysis. It is then important to have a good comprehension of the essential components of this phase of the process, which relate to :

- The purpose of the "Mapping out " stage : this exercise whose complexity is obvious, requires to have a permanent project multi-field team, qualified and committed daily to the task of conducting the process iteratively with the various players of the water sector ;
- Problems of involving the players in the situational analysis: questioning in relation to these problems which would deserve a thorough thinking of the GWP/WA, concerns the clarification on the one hand, of the contents of "*Involving the players* " concept and on the other hand of "*the effective strategy of its implementation* " ;
- Problems of capacity building of the players involved in water resources management : The problems of players capacity building must be comprehended at the two following levels : (i) that of the project team executives, for the effective conduct of the process; and (ii) that of the players involved in water resources management to allow them to take part at best in the conduct of the process of IWRM Plan development and its implementation.
- As for the project team, it is essential to ensure immediately that the executives develop competence through tailored training. In the case of the players involved in water resources management, it seems more relevant to concentrate efforts on the situational analysis of the players capacities in order to identify the deficiencies well, in order to propose a programme of capacity building for them, starting from specific actions to be conducted during the IWRM Plan implementation ;
- Linkages with the reforms in progress and harmonization with the other initiatives : The Process of IWRM Plan development falls under the precise context of each country, and consequently must take into account the major reforms in progress at the national and subregional level.

For Mali and Senegal, two essential reforms need to be mentioned at the national level and a dynamics at the subregional level with significant effects on the water governance; these are : (i) the disengagement of the Government from the production activities and centring on its kingly missions (ii) the decentralization process which devolves various competences to the local authorities; and (iii) the existence of a subregional dynamics for IWRM with actual and/or to be created basin organizations and the existence of a "*Water Resources Policy in West Africa* " in the ECOWAS Member States.

The stage of IWRM Plan Strategic orientations : The Process of IWRM Plan development, it should be pointed out happens in the countries of the West African subregion in a rather restrictive context with in the background the following major considerations : (i) the disengagement of the Government from the sphere of production and centring on its missions of sovereignty ; (ii) the implementation of the decentralization process with a devolution of various competences including water to the local authorities ; (iii) the drastic reduction of manpower of the public water administration, following the application of structural adjustment measures ; (iv) frequent changes for political reasons in the institutional framework sheltering the water sector ; and (v) the high level of poverty which affects a significant layer of the population.

In these considerations, and given that the reform of the water resources management framework is a major and long life operation, with many political, economic and social implications, the strategic choices must indicate how to bring into focus these fundamental elements quoted above and to spell out the specific actions to realize with a work plan to guide the process.

The stage of IWRM action proposals : Designed as a strategic tool for planning, IWRM action plan itself is a response to the major problems identified during the situational analysis. Basing on the overall objective of constructing a new water resources management framework, and on the previously defined strategic orientations, IWRM Action Plan must indicate clearly the reforms to undertake at the level of political environment, legislative and regulatory framework, technical and economic framework so that gradually the new management framework becomes a reality and this, according to the means and capacities of the country.

With reference on the one hand to the narrow overlap of the various compartments of the process, and on the other hand to its political, economic and social implications, questioning which deserves thoughtful attention is that to know if the implementation of the aforesaid process can be considered in a linear way or if in spite of the complexity of the issues at stake, the implementation must be carried out simultaneously because of the interdependence of the compartments of the process and with a view to an overall coherence. Answer to this question will mainly determine organization for the implementation of the previously mentioned process and the means to mobilize for this purpose. In any event, overall coherence must constantly be sought, in order to gain in effectiveness.

The stage of IWRM Plan implementation : The IWRM Plan implementation is a critical stage in the process of construction of the new water resources management framework, so questioning which deserves attention is to elucidate the validity of a specific structure for its implementation and if so, to clarify on the one hand the

statute of this structure likely to ensure effectively the realization of the actions envisaged in the IWRM Plan and on the other hand its anchoring in the existing institutional landscape.

The stage of IWRM Plan monitoring evaluation : The setting up of a new water resources management framework can be completed only in a midterm or long term horizon, considering the multiple implications that the reform of the water sector impose, therefore the importance of having an adapted monitoring evaluation system, to allow one to measure the performances achieved and to readjust periodically the options of IWRM Plan implementation, according to the constraints observed. Except the capacities of the structure in charge of IWRM Plan implementation, the definition of indicators is of particular significance in this exercise and on the matter, the variables to monitor must be simple and reliable.

Conclusions and Recommendations : The Process of IWRM Plan development in Mali and Senegal, is in itself a success since the first fundamental achievement was the a creation and renewal of awareness at the national level of water resources and related issues for the continuous development of each country.

The most successful experiences at the global level as regards IWRM show that this process requires in addition to political will and a minimum of resources, method, constant engagement, perseverance and time to allow the process to have an unquestionable anchoring for a continuous and irreversible development. This is more than elsewhere, in developing countries like Mali and Senegal where at least 40% of the population live below the poverty line, and where the needs for basic hydraulic infrastructures are considerable and constitute a constant concern for the populations and political authorities. There, it seems more realistic to build such a process for the future, by coupling it with solid investment plans for greater visibility and by taking into consideration the major constraints inherent in the developing economies.

Under these considerations, the experiences that were gathered in these two countries and in the subregion for IWRM Plan development allow learning lessons, identifying the questions deserving thorough thinking, and thus naturally inspire the following observations/ recommendations :

- The Process of IWRM Plan development whose purpose is to set down the immaterial architecture of a new water resources management framework is essentially eminently complex, being a reform with multiple implications at the political, technical and socio-economic levels. Conducting such a process requires proven competences and a high level of organization ;

- The management of the process of IWRM Plan development falls under the prime responsibility of the public administration of water. This is because of the multiple implications which the setting up of a new water resources framework imposes, the imperative need for legitimacy, and the need to ensure the appropriation of the aforesaid process at the national level, as well as the need for sustaining IWRM development ;
- Constant political commitment throughout the process of IWRM Plan development and for its implementation is unquestionably a determining factor for the success of the process. It is appropriate however, to note that great expectations of the populations with respect to political decision makers in terms of programmes of hydraulic infrastructures in the developing countries weaken this political commitment, since IWRM process in the immediate future does not bring the same type of response. This situation imposes a careful consideration in order to use this essential political commitment permanently ;
- The existence of a qualified interdisciplinary project team within the water public administration for the daily management of activities of IWRM Plan development process, is of prime importance for the success of the aforesaid process, to guarantee the appropriation of the benefits of the process at the national level and thus to create gradually an environment needed for IWRM development ;
- The process of IWRM Plan development; unlike the physical investment plans (hydraulic works in particular), lacks visibility and does not always receive the desired attention of the political decision makers and the populations in the developing countries with large requests of basic infrastructures due to accumulated deficits of water and sanitation services. It is thus imperative to look further into the relevance of coupling systematically the conduct of any process of IWRM Plan development and its implementation, with the realization of structuring investment plans in the field of water ;
- The implementation of the various components of the Process of IWRM Plan development reveals another significant facet of its complexity in the narrow overlap of the process components, and the political, economic and social implications inherent in the reform of the water sector. In such a context, can one consider the implementation of the process in a linear way, or in spite of the complexity of the issues at stake, this implementation

must be carried out simultaneously because of the interdependence of the process compartments and with an aim to an overall coherence. A thought-sharing on the matter will enhance the performances in the conduct and implementation of IWRM action plan ;

- The implementation of the definite IWRM Plan actions is particularly important, because it determines the success of IWRM development at the national level. As for any reform building for the future, it is essential to have an appropriate structure to achieve the defined IWRM Plan goals and in line with the ambitions of country development. From this point of view, a thorough thought sharing is essential to determine the legitimacy of setting up a specific structure to this effect and if so, its statute and its anchoring in the existing institutional landscape ;
- The new water resources management framework, resulting from the Process of IWRM Plan development must rest on a legal basis so that the reforms achieved in the action plan become a reality ; therefore the importance of having along in parallel a legislative and regulatory framework on which the proposals of IWRM action plan draw their legitimacy. It follows that it is fundamental to avoid discrepancy between the legal framework comprising the fundamental orientations and the proposals of IWRM action plan. It is necessary to avoid all things that will either partially immobilize the IWRM action plan through lack of legitimacy, or necessitate a rewriting of the said action plan to conform to the provisions of the legal framework.

INTRODUCTION

Climate change with the ensuing natural disasters, has finally convinced the whole of humanity of the pressing need for a sustainable management of the world natural resources, in order not to jeopardise irreversibly, the survival of living species of the Planet Earth. Fresh water resources for this reason were the subject of a caring attention, at the United Nations Conference on environment and Development in Rio de Janeiro in 1992. Most of the countries in the whole world during this significant conference, undertook to implement the provisions of Chapter 18 of Agenda 21.

This awareness of all the international community of the water related issues, gradually converged at the end of the 20th century towards a consensus for a basically innovative approach to water resources management, called Integrated Water Resources Management (IWRM).

IWRM is founded on a global vision which considers the dynamics of water resources within their natural settings which are the basin areas or aquifers, with an involvement of all the players of the water field as part of a new management framework, allowing to reconcile all the uses for the continuous development of a region or a country, while preserving the needs of the future generations.

The Conference of Ouagadougou, from 3 to 5 March 1998 on IWRM, marked a turning point in the approaches to water management at the regional level. Indeed, the Governments of the West African ECOWAS member countries, aware that the water related problems are prejudicial to their economic and social development, also aware that it is becoming increasingly urgent to adopt new forms of water management as recommended in Rio, undertook to conduct in each country an IWRM process, and to implement an "action plan of Integrated Water Resources Management".

One of the outcomes of the World Summit on Sustainable Development held in Johannesburg in 2002 was the firm commitment of the international community to develop and complete National Action plans of Integrated Water Resources Management (PANGIRE) in the various countries by 2005. Many countries thus became committed to developing their National Action plans with the technical and financial support of the technical and financial partners.

In spite of the significant sensitisation and information sharing activities carried out at the global level by the GWP and other specialized structures in the field of water, it should be recognized that many blurred areas remain, in particular in the subregion of West Africa, to move into IWRM operational phase in the various

countries. Indeed many countries that received the financial support of the development partners engaged in conducting IWRM process, however there are real difficulties as for "*how to implement IWRM at the ground level*" in a context of developing country with limited financial resources and with most of the population (at least 40%) living below the poverty line.

In this context, five African countries (Mali, Senegal, Kenya, Malawi and Zambia) used in 2004, the support of the Canadian Initiative for the Development of Africa and Water management (CIDA), to conduct their development processes of Integrated Water Resources Management Action Plan. This process used a subregional dynamics in the ECOWAS Member States. Indeed, to take up the challenge of poverty, the ECOWAS Member States implement policies and strategies in order to accelerate growth and to reduce poverty in agreement with the ECOWAS vision and the West African vision for water, life and environment for 2025. From this point of view, the aforementioned countries prepared a document on "*Water resources Policy in West Africa*" which after adoption by the Council of Ministers of the aforementioned institution, will serve as reference document both for the Member States, the basin organizations of the subregion, and regional NGOs involved in water resources management.

This study fits overall in the contribution to the Global Water partnership of West Africa (GWP/WA) in order to get a summary analysis of the achievements and inadequacies of the Process of IWRM Plan development in Senegal and Mali. According to ToRs, it is expected from this, the realization of a briefing document describing and analyzing the fundamental questions in relation to The process of IWRM Plan development, from initiation, involving the stakeholders in "*the mapping out*", through IWRM Plan monitoring evaluation, following its approval by the appropriate authorities of each country.

The added value of this study goes beyond the qualitative comparative analysis of the process of IWRM Plan development in the two countries, the provision of (GWP/WA), a "*discussion paper*" including major questions that arise for each key phase in the process and to which it is important to provide appropriate responses for an effective implementation of the process of IWRM Plan development. This document offers (GWP/WA) thus the "*entry doors*" on the one hand to characterize well the performances of IWRM process taking into consideration these fundamental questions and on the other hand, to engage careful thoughts on some of these fundamental questions in order to help in differentiated manner each country according to the specific conditions and level of maturity, to conduct its IWRM process better, while having an overall coherence in terms of prospective vision for the whole subregion.

The mission was conducted, on behalf of Global Water Partnership of West Africa (GWP/WA), by a consultant - Mr. Jérôme THIOMBIANO from Burkina Faso, an Agricultural engineer, expert in integrated water resources management. The consultant received the support of the (GWP/WA). It was not possible to meet the numerous players implied in IWRM process in Mali and Senegal primarily because of the time limits for this study; efforts were thus made to tap from all the documentation available at the headquarters of (GWP/WA) in Ouagadougou in Burkina Faso, as well as in the realization of distant interviews with resource persons who were involved in the process of IWRM Plan development in Mali and Senegal.

I. CONTEXT OF WATER RESOURCES MANAGEMENT

Mali and Senegal, are agricultural countries in the Sahelian zone which was deeply affected by the effects of drought in the Seventies, and which revealed the vulnerability of these countries this zone vis-à-vis a largely deficit and spatial-temporally irregular distributed rainfall. The extent of the harmful effects of these successive droughts, the importance and the intensity of the water demands to meet, disarmed the authorities. This disaster situation known as national gave place to an exceptional awareness of the water related issues. The continuing growth of water demand in quantity and in quality because of the development of each country in a context of the resource degradation, in quantity and quality, involved competitions, even conflicts in the uses of water. That was a decisive turning point when all the governments of the countries in the Sahel first entered water management as a major area of the development policy of their respective countries.

In spite of this restrictive context at the physical level, water resources management remained primarily sector wide and it would take the early 90s on the one hand to see the development of awareness of the problems of water in each country and on the other hand with the conference of Rio de Janeiro in 1992, to notice strong commitments of the political powers of governments, for IWRM implementation in their respective countries.

At the strictly physical level, the two countries show similarities in climatological factors influencing the provisions of water resources that depend primarily on rainfall. These water resources experience an increasing degradation in terms of quantity and quality, doubled with a continuously growing demand, which results in an increase in potential conflicts in the uses of water. The other significant elements of the context of water resources management relate primarily to : (i) the legislative and regulatory framework (i) the institutional framework ; and (iii) the economic and financial framework.

The legislative and regulatory framework :

In Mali, the actual legislative and regulatory framework at the beginning of the process of IWRM Plan development is enabling, because the existing Code of water takes into account IWRM fundamental principles (subsidiarity, dialogue and involvement of all the players and use of economic and financial tools for sustainable water resources management). The gaps of this code relate to (i) non consideration of the user/ pays principle, as it is the case for that the polluter/pays, a situation which raises the problem of financial resources of the basin organizations to be set up in prospect ; (ii) clarification of competences of the basin and sub-basin

Committees which must ensure a collaborative management of water resources at the basin or sub-basin scale, while taking into account the prerogatives set aside on the matter for the NRBA and organizations like OMVS ; and (iii) the composition of water resources management bodies, in particular the NWC which should be equitably involve the various players of the water sector.

In Senegal, on the other hand the actual legislative and regulatory framework at the beginning of the Process of IWRM Plan development is more restrictive, because the existing Water Code dates back to 1981, and its provisions are no longer compatible with the modern organization of the country and do not meet the socio-economic development ambitions any more. Indeed, this Water Code is deeply centralist and gives little place to the other development players in the field of water. It does not consider at all the new dynamics of development resulting from decentralization (local authorities are not prime contractors). The principles of dialogue, subsidiarity and water resources sustainable management are absent in the Water Code.

The institutional framework

In Mali as in Senegal, the institutional framework was worked over the time and thanks to specific events that drew awareness of the players of the water sector in each country to the water related issues, which strongly weighed on the successive policies as regards water. Thus, the institutional framework of the water sector in the two countries is characterized at the beginning of IWRM process, by a concentration of all the water related prerogatives in the hands of the State, which does not adequately involve the other players of the water sector. This situation is only an illustration of the facts of the historical development of the African states recently granted independence, in which only the State had the capacities and competences to conduct development actions. IWRM approach will contribute to make this situation move positively, gradually with the setting up of legislation in keeping with the principles of effective water governance.

The economic and financial framework

In Mali as in Senegal, it is characterized by a strong dependence of the water sector on external financial resources whose level reaches at least 85%, against only 15% for the national resources. In this situation, water services revenue is not yet sufficient to fund the cost of the services. The State with the support of external contributions offsets the inability of players to ensure the planning, funding and management of the hydraulic works. If this attitude could be justified in the past, today it undermines the public finance and to causes confusion in the setting up of

market mechanisms on commercial scale, and with appropriate activities and outputs.

In the same way, the sustainability of external funding sources on the long term basis is not secured whereas they tend to believe that investment requirements in particular for hydraulic works in the countries will continue to increase because of population growth, urbanization and poverty.

The developing countries and in particular those of the subregion found themselves thus trapped in a vicious circle of "an increasing request for investment in the water sector, a low capacity of public investment, dwindling of the external resources and a poor return on investments in the water sector. ". In order to break this circle, these developing countries do not have other alternatives but to engage truly in the implementation of thorough reforms in the water sector.

In this respect, IWRM appears as the best strategic option because it allows the governments to prepare the economic instruments needed for a partial self-funding of the water sector. The creation of water royalties belongs to the new institutional and financial organization needed for the implementation of integrated water resources management (IWRM). It is consequently essential for these economic and financial instruments to rest on a legal basis of the legislative and regulatory framework; this is not yet explicitly the case for both Mali and Senegal.

II. INITIATING THE IWRM PLAN DEVELOPMENT PROCESS

On the basis of the experiences in conducting the Process of IWRM Plan development in Mali and Senegal, and in other countries of the subregion, we can say that various factors occur in the process initiation phase which prove to be determinant in the continuation of the process. For the sake of clarity, it must be convenient to distinguish exogenous and endogenous factors in each country.

In the case of exogenous factors, it must be convenient to name the international environment : (i) the United Nations Conference on environment and Development in Rio de Janeiro in 1992 which invited all the countries to implement IWRM. ; (ii) the West African Conference on integrated water resources management (ACO/IWRM) of March 98, where all the countries of the subregion undertook to work out in their respective countries IWRM action plan ; and (iii) the support of the international community, in particular of the GWP to assist the countries in the subregion to realise this recommendation of the Summit on Sustainable development of 2002

In the case of endogenous factors, we learn : (i) the existence of nationwide crucial water related problems as regards water which are expressed in the form of water shortage or significant pollution of the water resources, creating an exacerbation of the potential conflicts of sharing the water resources between the various uses involved ; (ii) the existence of an essential political will in support of an initiative of a nationwide and transborder importance ; and (iii) the existence of a "*critical mass of players involved in water resources management* " being fully aware of the water resources related issues in the country programmes of development and which "*advance*" the implementation of IWRM process.

In Mali as in Senegal, two groups of exogenous and endogenous factors concomitantly played certain roles during the initiation phase of the IWRM Plan process development and except for few differences, the two countries showed similarities. Indeed, at the international level and for exogenous factors, the two countries actively took part in all the international meetings on water resources and the West African conference on integrated water resources management (ACO/IWRM) was particularly decisive in the engagement of countries of the subregion to implement IWRM promptly. In addition, it should be noted that the existence of CWP's both in Mali and in Senegal, helped the creation of this critical mass of players involved in water resources management which is likely to advance the process and to attract all the players involved in the water resources management

in each country. At this stage of the process, the elements below deserve a very thoughtful attention, because on their appropriate consideration will mostly depend success in conducting the Process of IWRM Plan development. They are :

Need to have permanently a qualified multi-field project team : The complexity of the process indicates that it is essential to have a multi-field team of qualified people dedicated daily to achievement of the objectives of the process of IWRM Plan development. This project team, separate from the other process coordination and oversight bodies, is responsible for conducting the process with professionalism from day to day. While in Mali, this team truly existed throughout the process, it is difficult to say the same for Senegal and this situation can explain the difficulties that the process faced all the way through, in particular during the formulation of IWRM Plan actions in Senegal. This is in addition to the difficulties related to the process appropriation by the public water administration and those which are bound occur in during the implementation of the elaborated IWRM action plan ;

Synergy to be sought between competences in the public and the private sectors :

On consideration, it arises that the Process of IWRM Plan development, which, it should be pointed out, is a multidimensional reform, calls on various competences. It is essential in these conditions to build a synergy for all the competences lying at the national level and all the competences in the public and the private sectors. It seems appropriate in these conditions to put up a project team including at the same time civil service executives to ensure the continuity of the kingly missions of the State and executives of the private sector to make most of the existing competences. From this perspective, a reasonable proportion in terms of percentage would be 65% for civil servants and 35% for the private sector. Analysis of this specific point shows that with regard to Mali, the civil service executives lacked proven experience, all things that were an impediment for the effective conduct of the process. The situation in Senegal shows that the absence of a project team with strictly speaking led to an option calling according to needs upon consultants with proven competences, an option which poses a problem of appropriation and continuity within the public water administration ;

The institutional anchoring of the process implementing structure : This question of first importance must be analyzed meticulously, in order to ensure the viability of the process of IWRM Plan development and based on IWRM development in the country. Indeed, IWRM process, being the archetypal realization of a multidimensional reform, it is essential to identify the most appropriate institutional framework likely to offer the maximum chance of success to the process while ensuring its sustainability. From this perspective, it appears that the Ministry in charge of water is the most appropriate institution, even if the

"*actual weight*» of this institution in the overall architecture of government institutions needs to be brought into focus, as on this consideration will also depend engagement and celerity in the implementation of The process of IWRM Plan development. Lastly, the dimension of stability of the hosting institutional framework is also significant, since too frequent changes will result in a constant repeating prejudicial to the process. Similarities in this regard are strong on this particular point between Mali and Senegal ;

Clarification of the role of the driving players that are the Government and

CWPs : The implementation of a process, whose complexity is obvious, requires having a clear vision of the responsibilities of the process driving players, in order to avoid an overlapping of competences, which is likely to paralyse the process. The multidimensional reform to implement in the whole territory, befalling under the government prime responsibility, it is consequently logical that the latter takes the forefront roles to prompt the new orientations of the water governance in the legislative and regulatory, institutional level, as well as the new financial mechanisms and instruments to set up. The legitimacy, which the government institutions enjoy, enables it to take on this type of mission fully. As its name implies, the CWP is a framework gathering various horizon players for a common objective, the promotion of integrated water resources management in the country. The mandate of such a structure with an associative nature is to support the government in its mission of reforming the water governance and without substituting for the latter. In Mali as in Senegal, CWPs played an essential role in the conduct of the process, in particular in the sensitisation and mobilisation of players involved in water resources management, however it seems that in Senegal the CWP insisted more on the implementation of the process, thus relegating into the background the government hosting structure in charge of water management. This situation could reveal problems on implementation of the IWRM action plan, because the executives in the ministry in charge of water might not feel sufficient appropriation.

III. VISION AND POLITICAL COMMITMENTS

Political commitment is unquestionably the most significant factor which will : (i) lead to the decision to conduct an IWRM process in the country; (ii) trigger the mechanisms for the effective starting of the Process of IWRM Plan development; (iii) maintain the commitment and the process dynamics throughout the IWRM Plan development; and (iv) finally activate constantly the tools of implementation of the actions envisaged in the adopted IWRM Plan.

It is fundamental in these conditions to comprehend "in which conditions political commitment is effective and sustained» or in other words "what justifies political commitment to conduct an IWRM process in a developing country". Analysis of this significant questioning can be carried out based on the one hand on external factors like the visions developed at the international Community level on the water resources problems and on the other hand on internal factors at the national level like the constraints facing the developing countries :

As external factors, it is undeniable that the international community put itself into the promotion of water governance at the global level, with the adoption of IWRM as appropriate vision. From this perspective, many international meetings on sustainable management of natural resources including, contributed to this awareness. In this regard, it must be convenient to quote inter alia : (i) the United Nations Conference on Environment and Development of Rio de Janeiro in 1992 ; (ii) the West African Conference on the integrated water resources management action Plans (WAC/IWRM) of Ouagadougou in March 1998 ; (iii) the Summit on the Millennium in 2000 in New York ; (iv) the international conference of Bonn on fresh water of December 2001 ; and (v) the World Summit on Sustainable Development of Johannesburg in September 2002. This environment largely influenced the awareness of most of the countries in the world including Mali and Senegal for the adoption of a policy based on effective water resources governance ;

As internal factors, it must be convenient to take into account the restrictive context of developing countries like Mali and Senegal where at least 40% of the population live below the poverty line, and where the requirements for basic hydraulic infrastructures are considerable and are a constant concern for the populations and political authorities. The pressing request of the populations for hydraulic works explain the caring attention of the political decision makers with respect to these investment plans unlike an IWRM described as "software" programme.

Under these considerations, it is legitimate to raise the question to know if it is not more relevant to couple IWRM process with the realization of hydraulic investment plans, in order to offer visibility to IWRM and especially to use the constant political commitment, without which the process is doomed to fail. The experiences conducted in Mali and in Senegal, show that political commitment never lacked throughout the process, however, it is difficult to predict its sustained nature for IWRM Plan implementation which besides will have to be adopted beforehand by the government in each of the two countries.

IV. MAPPING OUT/SITUATIONAL ANALYSIS

The situational analysis or "*Mapping out*" in conducting the Process of IWRM Plan development is probably the most complex stage and which deserves a very thoughtful attention, because on its appropriate execution will depend the contents of the proposals of IWRM Plan action which is actually a response to the issues identified during the situational analysis. It is then important to comprehend well the essential components of this stage of the process, which relate to :

Purpose of the "*Mapping out*" stage ;

- Problems of involving the players in the realization of the situational analysis ;
- Problems of capacity building of players involved water resources management ;
- Linkages with the reforms in progress and harmonization with the other initiatives

4.1. Purpose of the "*Mapping out*" stage

In abroad outline "*the situational analysis/mapping out*» has as principal objective to establish the picture of the situation of water resources management framework in the country at the political level, the legislative and regulatory level, the economic and financial level and the level of communication, by giving a critical and professional analysis of each one of these elements. This refers to effecting a professional assessment of the components of the water resources management framework at a given time of the country's development (based primarily on the existing documentation) to identify the strengths and weaknesses of each component and on the basis of which, a new management framework incorporating IWRM principles will be designed with the involvement of all the players in the field of water; a new framework will thus be gradually set up with the means and capacities of the country.

Such an exercise, whose complexity is obvious, requires having a permanent multi-field project team, qualified and committed daily to this task and iteratively with the various players of the water sector. The importance of this exercise comes from the fact that the weaknesses identified in the management framework having made the subject of consensus among all the players will allow later on to have proposals of actions according to a defined calendar, in order to build gradually the new water resources management framework meeting the country current needs of development, without jeopardising the capacity of the future generations to face their development needs.

4.2. Problems of involving the players

In the light of experiences as regards the players involvement in Mali, Senegal and in the other countries of the subregion, the problems which would deserve a thorough consideration of the GWP/WA, relate to the clarification on the one hand of the contents of the "Involving the players" concept and on the other hand on "the effective strategy of its implementation". Indeed, information/sensitisation or participation in meetings is often compared to involvement.

From the perspective of a satisfactory «situational *analysis/ Mapping out*», "Involving the players" concept is proposed to comprise the grounds and levels below :

The first level relates to all the players information/sensitisation, for their awareness of the issues related to water resources management in the country and to get them commit to involve in the process of setting up a new framework of effective water governance for the benefit of all. These meetings address all the players indifferently, of a given administrative area or a determined hydrographic area, irrespective of the type of use or interaction with water resources ;

The second level concerns that an iterative dialogue with each specific group of players in the water sector with particular interests. These meetings aim at the players of the same type of use (drinking water supply, agriculture, industry, livestock, fishing, aquatic ecosystem, etc.) and with the actors having the same focus of interest (public structures, local authorities, NGOs, etc). They are carried out based on a "*preliminary discussion paper*" in order to allow to exhaust the discussions about all the concerns of each sub-group and thus to bring into focus the relevant proposals resulting from these exchanges from the perspective of the situational analysis of the water resources management framework ;

The third level corresponds to linking up the various groups identified based on focus area or type of use of the water resources, in order to superimpose the various concerns and to seek consistency of the most relevant proposals with an aim of accomplishing integrated water resources management. This juxtaposition of the various groups of players (Government, local authorities and Users) and their thinking/ propositions, allows building of active solidarity between the water players in the same river or aquifer basin/system.

The implementation of these three levels both with reference to "the mapping out" and for the proposals for IWRM Plan actions, are the guarantor of a true involvement of the players who will not only identify themselves with the

fundamentals of the situational analysis, but also the suggested IWRM Plan strategic orientations, all things which forecast all the players support and involvement in IWRM Plan implementation.

Thus, with reference to the problems of involving the players in the field of water as part of the process of IWRM Plan development, we can affirm that in Mali as in Senegal, many actions were conducted for the players' information and sensitisation, which allowed acquiring their support of IWRM process in each country. The partial existence of the second level corresponding to a sustained and iterative dialogue with each specific group of players, does not allow affirming a real involvement of the players. To cut corners at this level weakens unquestionably the contributory capacity of the driving players of IWRM process (different types of water resources users) and consequently, it seems significant to look further into these problems of involving the players within the GWP/WA for a better performance of IWRM process.

4.3. Linkages with the Reforms in progress and Harmonization with the other Initiatives

The Process of IWRM Plan development falls under the precise context of each country, and consequently must take into account the major reforms in progress at the national and subregional level. For Mali and Senegal, two essential reforms need to be mentioned at the national level and a dynamics at the subregional level with significant effects on the water governance ; these are : (i) the disengagement of the Government from the production activities and concentrating on its leadership initiative activities (ii) the decentralization process which devolves various competences to the local authorities ; and (iii) the existence of a subregional dynamics for IWRM with actual and/or to be created basin organizations and the existence of a "Water Resources Policy in West Africa " in the ECOWAS Member States. In relation to the latter, we should mention that contrary to what obtains in Mali, we note that in Senegal although the decentralization process is developed with the devolution in particular of nine competences to the urban and rural districts, competences as regards water in particular the ownership of work remains a Government prerogative. The options of Senegal seem to point to the choice to observe the exercise of competences as regards water on the ground by the local authorities, before getting these competences ratified by the legislative and regulatory texts. In addition, the government disengagement leads to the consideration of this major piece in IWRM Plan strategic orientations.

In each country, the process got down to harmonizing the actions with the other initiatives as regards water. The most significant initiatives in Mali concern : (i) GIRENS project including the components of transboundary water resources

management in Guinea ; (ii) initiatives in progress within the NRBA for Niger River sustainable management and (iii) initiatives in progress within the OMVS for the Senegal River sustainable management. The key initiatives in Senegal concern : (i) initiatives within the OMVS with the Environment Observatory of the Senegal River Basin ; and (ii) the project of integrated water resources management (GEF/OMVS/BFS project).

In this regard, we need to make sure that the process of IWRM Plan development whose purpose is the setting up of the country new water resources management framework remains and is the focus of reference for IWRM development, in order to ensure the documentation of the various experiences and to avoid duplication of the efforts and national resources.

4.4. Problems of Capacity building of Players in the Water Sector

The problems of capacity building of players must be dealt with at the two following levels : (i) that of the executives of the project team, for the effective conduct of the process; and (ii) that of the players involved in water resources management to allow them to participate at best in The process of IWRM Plan development and its implementation. In the case of the project team, it is essential to ensure immediately the development of executive competences through tailored training. For the players involved in water resources management, it seems more relevant to concentrate efforts on the situational analysis of the players capacities in order to identify the insufficiencies to be able to propose a capacity building programme for players starting from specific actions to undertake during the implementation of IWRM Plan. From this point of view, the executives of the project team in Mali and in Senegal received specialised trainings in Stockholm in Sweden and used study trips in the subregion.

The situation analysis in Mali identifies the capacity building related problems for players in the water sector and proposals of IWRM Plan actions are identified in response to these problems of players' capacities. The provisional version of the IWRM Plan in Senegal identifies six major problems of water management but does not include that of players' capacity building. However, proposals in this regard exist at the level of two strategic areas of the IWRM Plan. The importance of the capacity building problems deserved to be treated as a full strategic area in the IWRM Plan of Senegal.

V. STRATEGIC ORIENTATIONS OF IWRM ACTION PLAN

The IWRM Plan strategic orientations to work out result mainly from the superposition of achievements and weaknesses arising from the situational analysis of the actual framework of water resources and the ambitions of country development in relation to the water resources. The strategic choices adopted must indicate clearly and without ambiguity, how in the light of the fundamental weaknesses of the existing management framework, the new management framework will be built gradually according to the country capacities and means.

The Process of IWRM Plan development, it should be pointed out occurs in the countries of the West African subregion in a rather restrictive context in the light of the following major considerations : (i) the disengagement of the Government from the sphere of production and concentrating on its missions of leadership initiative ; (ii) the implementation of the decentralization process with a devolution of various competences including water to the local authorities ; (iii) the drastic reduction of manpower of the public water administration, following the application of structural adjustment measures ; (iv) frequent changes for political reasons in the institutional framework hosting the water sector; and (v) the high level of poverty which affects a significant proportion of the population.

In these considerations, and given that the framework for the reform of the water resources management is a major and long term operation, with many political, economic and social implications, the strategic choices must indicate how to bring into focus these fundamental elements quoted above and to spell out the specific actions to realize with a work plan to guide the process.

The complexity of the reform of the water resources management framework imposes necessitates clarification and a simplification of the exploitation of "*IWRM Plan* » document having a good articulation of the large compartments composing the IWRM Plan. This is essential to its good legibility and its effective implementation. In this regard, for IWRM Plan in Mali, there are strategic choices, these must however be aggregate for more clarity according to the requirements identified in the "*Situation analysis*". However, in the IWRM PLAN of Senegal, although there is a declaration of strategic choices, these choices are not clearly spelled out. This poses a problem of legibility of the aforesaid plan and makes the reading of the overall architecture of the action plan difficult.

VI. IWRM ACTION PLAN

Designed as a strategic planning tool, IWRM action plan strictly speaking is itself a response to the major problems identified during the situational analysis. Based on the general objective of constructing a new water resources management framework and on the previously defined strategic orientations, IWRM action plan must indicate clearly the reforms to undertake at the level of political environment, legislative and regulatory framework as well as technical economic framework so that gradually the new management framework becomes a reality and this, according to the country means and capacities.

With reference to the narrow overlap of the various compartments of the process and to its political, economic and social implications, the **question which deserves thoughtful consideration is whether the implementation of the aforesaid process can be viewed as linear, or if in spite of the complexity of the issues at stake, the implementation could be carried out simultaneously because of the interdependence of the compartments of the process and with a view to an overall coherence.** Answer to this question will largely determine organization for the implementation of the previously mentioned process and the means to mobilize for this purpose. In any event, overall coherence must constantly be sought, in order to gain in effectiveness. Consideration of the structuring of IWRM Plan projects in Mali and Senegal, allows identifying the following points :

The documents of the process of IWRM Plan development available in Mali allows establishing a link between the problems identified during "*the Situation analysis*» and the large areas of the plan structuring. However, the expression of priority problems is vague, something that does not clarify the legibility of proposals which result from this. In spite of the IWRM Plan provisional nature, questions remain on various significant issues about which the plan is not assertive (the contents of institutional reforms, basin organizations whose legal statute and missions are not defined, the diversity of financial instruments including that in favour of IWRM should be specified, namely the user/pays principle).

Another significant question to clarify in the IWRM Plan project of Mali, relates to the legal base, which will allow applying the various proposals, because the legislative and regulatory orientations determine the statute and missions of the structures to set up, as well as the most suitable type of financial instrument for IWRM development. In addition, it would be useful to describe the contents of the reform of each output identified in the plan, in order to clarify better the relevance of the reform in each output in connection with the specific objective concerned, as

well as the importance of players capacity building would have deserved being dealt with as full output in comparison with the many activities to undertake in this area.

With reference to the IWRM Plan funding, the mobilization of financial resources will be carried out as part of the Sector wide Water and Sanitation Programme (PROSEA). However, the funding strategy would gain in being clarified, because the proposed resources show much uncertainty, and in addition it must be convenient to take into account the mobilization of internal resources generated by the application of user/ pays and polluter/pays principles.

The documents of the process of IWRM Plan development available in Senegal allows also establishing a link between the problems identified during "*the Situation analysis*" and the large areas of IWRM plan structuring. The major problems specified in the situational analysis are consistent with the measures suggested in the three areas of IWRM Plan architecture. Questions remain however on various significant issues (the contents of institutional reforms, national water basin organizations whose legal statute and missions are not defined, as well as the diversity of financial instruments including that in favour of IWRM should be specified).

In addition and more than in Mali, the issue of the legal base which will allow various IWRM Plan proposals to be applied is to be clarified. A new water code is being drafted, yet the legislative and regulatory orientations determine the statute and missions of the structures to be set up, as well as the most suitable type of financial instrument for IWRM development. This situation of discrepancy between the new water code to come and certain IWRM Plan action proposals will involve either a second reading of the previously mentioned proposals, to make them consistent with the new regulation or an impossibility of implementing these action proposals, through lack of legal base.

It would be finally useful to describe the contents of the reform of each strategic area defined in the IWRM Plan, in order to clarify better the relevance of the reform in each area in connection with the specific objective concerned; and to define the players in charge on a strategic area basis. Finally, the importance of players' capacity building would deserve standing as strategic area in its own right in comparison with the numerous activities to undertake in this field.

With regard to IWRM Plan funding, this will come from the mobilization of financial resources through the government budget including the external financial resources with the support of technical and financial partners. The proposed

funding strategy comprises resources whose mobilization is subject to the preliminary existence of a legal base or a joint agreement with the technical and financial partners.

One of the pivotal elements of the process of IWRM Plan development is that of the appropriation of the previously mentioned process by the key players of the country water sector. Documentation available on IWRM Plan development process both in Mali and in Senegal does not allow one to figure out with objectivity the level of appropriation of the IWRM Plan worked out by the various stakeholders. However, the elements seem to indicate that in Mali, because of the effective existence at the very beginning of the process, of a multi-field project team with a prevalence of civil service executives within the public water administration, the process received a better appropriation.

The absence of a permanent multi-field project team within the public water administration in the case of Senegal was probably prejudicial to the appropriation of the process at the level of the ministry in charge of water. Turning to a IWRM Plan drafting team (including external experts whose professionalism is proven) is an illustration of the level of appropriation of the process by the public water administration. This situation militates in favour of a validation procedure as soon as possible of the "*Senegal Action plan of integrated water resources management*» document, while ensuring the involvement of all the stakeholders, before its submission to the government for approval.

VII. IMPLEMENTATION OF IWRM ACTION PLAN

For IWRM Plan implementation in Senegal, a Permanent Secretariat (SP-IWRM Plan) whose institutional location will be defined following an ongoing study should be set up. The SP-IWRM Plan's key mission is *"to coordinate all the actions composing the IWRM Plan so as to schedule them, monitor their realization, evaluate the results and propose necessary complementary actions"*.

Steering of IWRM Plan will be ensured in Mali by an "IWRM Plan management Unit" in charge of its daily management and coordination of actions of IWRM Plan implementation.

IWRM Plan implementation is a critical stage in the process of constructing the new water resources management framework, so an aspect which deserves attention is to elucidate the legitimacy of setting up a specific structure for its implementation and if so, to clarify on the one hand the statute of this structure likely to ensure effectively the realization of actions envisaged in the IWRM Plan and on the other hand its anchoring in the existing institutional landscape.

Indeed one of the concerns of this aspect is to envisage the idea of implementing IWRM Plan actions by relying on an already existing structure. This option has the advantage of not overdeveloping the existing institutional framework, but can prove ineffective when competences are deficient or non-existent within this structure.

There also exists a major risk of likely dilution of the goals in view by the IWRM Plan in the present missions of the existing structure.

The idea of setting up a specific structure with the mission to facilitate IWRM Plan implementation has the considerable advantage of concentrate all competences of this structure exclusively on the realization of the objectives of the plan in question, which it should be recalled, shows in the form of a long term reform with multiple implications. The success of this option will depend mainly on the appropriate institutional anchoring of this specific structure, on the powers it is conferred for the achievement of missions reserved for it and the political commitment supporting the choice of IWRM development in the country.

The success in the achievement of IWRM objectives in a country will depend mostly on a good resolution of these parameters. In comparison with the complexity of the problems and various possible options, it appears useful to

recommend thought sharing to be undertaken on the issue under the responsibility of the GWP/WA.

With regard to the matter, it is necessary to raise that for IWRM Plan in Senegal, the situation currently suggested, is equivalent to the need for having a transitional solution until the conclusions of the institutional study in progress not to hinder IWRM Plan implementation or to wait until the installation of the structure which will be defined by the study, a decision which will lack effectiveness.

The implementation of IWRM Plan in Mali is also subject to the effective installation of "*IWRM PLAN management Unit*". Considering the missions of coordination entrusted to the management unit, and given the diversity of players of the water resources user sectors, there is cause for wondering if the institutional anchoring of this "*IWRM Plan management Unit*" at the Secretariat-General of the Ministry in charge of water will confer the adequate capacities enabling it to manage effectively the intersector coordination in the implementation of IWRM action plan which, it should be recalled is cross-cutting through the whole country.

VIII. MONITORING -EVALUATION OF THE IMPLEMENTATION OF IWRM ACTION PLAN

Setting up a new water resources management framework can be completed only in a midterm or long term horizon, considering the multiple implications that the reform of the water sector impose, therefore the importance of having an adapted monitoring evaluation system, to allow one to measure the performances achieved and to readjust periodically the options of IWRM Plan implementation, according to the constraints observed. Except the capacities of the structure in charge of IWRM Plan implementation, the definition of indicators is of particular significance in this exercise and on the matter, the variables to monitor must be simple and reliable.

The "*IWRM Plan*» project in Senegal, just like in Mali, gives indications on the Monitoring evaluation mechanisms, however the document of Mali is more explicit with reference to the type of indicators which will be the subject of monitoring. It must be convenient to note in all the cases, the preliminary work of definition of indicators which will have to be carried out by the structure in charge of implementing IWRM Plan, without which monitoring-evaluation will be impossible.

CONCLUSION AND RECOMMENDATIONS

The Process of IWRM Plan development shows as the basic link allowing building the new water resources management framework whose completed level would correspond to the effective realization of the political, technical and socio-economic reforms, which make its structure.

The Process of IWRM Plan development in Mali and Senegal, is in itself a success since the first fundamental achievement was a constant and organized awareness drawing at the national level of the water resources related issues for the continuous development of each country.

The most successful experiences at a global level as regards IWRM show that this process requires in addition to political will and a minimum of resources, method, constant engagement, perseverance and time to allow the process to have an unquestionable anchoring for a continuous and irreversible development. More than elsewhere, in developing countries like Mali and Senegal where at least 40% of the population live below the poverty line, and where the needs for basic hydraulic infrastructures are considerable and constitute a constant concern for the populations and political authorities, it seems more realistic to build such a process for the future, by coupling it with solid investment plans for more visibility and by taking into consideration the major constraints inherent in the developing countries.

Under these considerations, the experiences that were conducted in these two countries and in the subregion for IWRM Plan development allow learning lessons, identifying the matters deserving thorough thinking and allow making the recommendations below :

- ❖ The Process of IWRM Plan development whose purpose is to put in place the immaterial architecture of a new water resources management framework is essentially eminently complex, because being a reform with multiple implications at the political, technical and socio-economic levels. Conducting such a process requires proven competences and a high level of organization ;
- ❖ The management of Process of IWRM Plan development falls under the prime responsibility of the water public administration, because of the multiple implications which the setting up of a new water resources framework imposes, the imperative need for legitimacy, and the need to ensure the appropriation of the aforesaid process at the national level, as well as the need for sustaining IWRM development ;

- ❖ Constant political commitment throughout the process of IWRM Plan development and for its implementation is unquestionably a determining factor for the success of the previously mentioned process. It is appropriate however, to highlight that great expectations of the populations with respect to political decision makers in terms of programmes of hydraulic infrastructures in the developing countries weaken this political commitment, since IWRM process in the immediate future does not bring the same type of response. This situation imposes a careful consideration in order to use this essential political commitment permanently ;
- ❖ The existence of a qualified multi-field project team within the water public administration for the daily management of activities of Process of IWRM Plan development, is of prime importance for the success of the aforesaid process, to guarantee the appropriation of the aforesaid process at the national level and thus to create gradually an environment needed for IWRM development ;
- ❖ The Process of IWRM Plan development; unlike the physical investment plans (hydraulic works in particular), lacks visibility and does not always receive the desired attention of the political decision makers and the populations in the developing countries with large requests of basic infrastructures. It is thus imperative to look further into the relevance of coupling systematically the conduct of any Process of IWRM PLAN development and its implementation, with the realization of structuring investment plans in the field of water ;
- ❖ The implementation of the various components of the Process of IWRM Plan development reveals another significant facet of its complexity in the narrow overlap of the process components, and the political, economic and social implications inherent in the reform of the water sector. In such a context, can one consider the implementation of the previously mentioned process in a linear way, or in spite of the complexity of the issues at stake, this implementation must be carried out simultaneously because of the interdependence of the process compartments and with an aim to an overall coherence. A thought-sharing on the matter will allow to enhance the performances in the conduct and implementation of IWRM Action Plan ;
- ❖ The implementation of the definite IWRM Plan actions has a very particular importance for promoting IWRM development at the national level. As for any reform building for the future, it is essential to have an appropriate structure to achieve the defined IWRM Plan goals and corresponding to the

ambitions of country development. From this point of view, a thorough thought sharing is essential to determine the legitimacy of setting up a specific structure to this effect and if so, its statute and its anchoring in the existing institutional landscape ;

- ❖ The new water resources management framework, resulting from the Process of IWRM Plan development, must rest on a legal basis so that the reforms contained in the action plan become a reality, hence the importance of having along in parallel a legislative and regulatory framework from which the proposals of IWRM action plan draw their legitimacy. It thus follows that in order to avoid anything which may either partially immobilise IWRM action plan through lack of legitimacy, or a necessary rewriting of the said action plan to conform to the provisions of the legal framework.