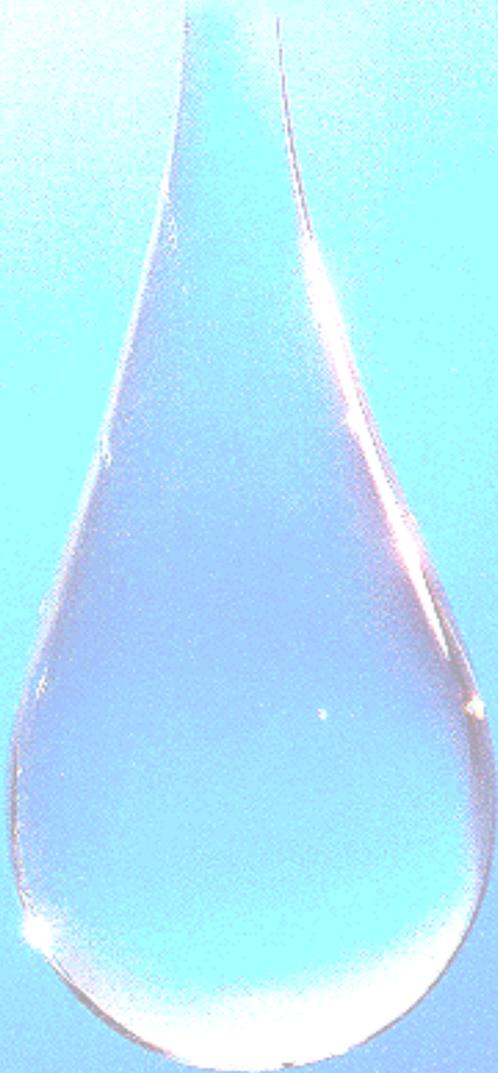


**BURKINA FASO**



**MINISTRY OF AGRICULTURE, HYDRAULICS  
AND FISHING RESOURCES**



**ACTION PLAN  
FOR INTEGRATED WATER  
RESOURCES MANAGEMENT  
IN BURKINA FASO  
(PAGIRE)**

**March 2003**



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FOR WATER RESOURCES  
INTEGRATED MANAGEMENT  
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(PAGIRE)**

**March 2003**



**LE PRESIDENT DU FASO,**  
**PRESIDENT DU CONSEIL DES MINISTRES**

Vine CF n° 32  
02-05-03  


- Vu la Constitution ;
- Vu le décret N° 2002-204/PRES/PM du 06 juin 2002 portant nomination du Premier Ministre ;
- Vu le décret N° 2002-205/PRES/PM du 10 juin 2002 portant composition du Gouvernement du Burkina Faso ;
- Vu le décret n°2002-255 PRES/PM du 18 juillet 2002 portant attributions des membres du Gouvernement ;
- Vu le décret n°2002-317/PRES/PM/MAHRH du 2 août 2002 portant organisation du Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques
- Vu la loi n°10 /98/AN du 21 avril 1998 portant modalités d'intervention de l'État et répartition de compétences entre l'État et les autres acteurs du développement ;
- Vu la loi n°002-2001/AN du 8 février 2001 portant loi d'orientation relative à la gestion de l'eau ;

Sur rapport du Ministre d'État, Ministre de l'agriculture, de l'hydraulique et des ressources halieutiques ;

Le Conseil des Ministres entendu en sa séance du 12 mars 2003;

**DÉCRETE :**

**ARTICLE 1 :** Est adopté le plan d'action pour la gestion intégrée des ressources en eau dont le texte est joint au présent décret.

**ARTICLE 2:** Le Ministre de l'agriculture, de l'hydraulique et des ressources halieutiques, le Ministre des finances et du budget, le Ministre de l'économie et du développement, le Ministre de l'administration territoriale et de la décentralisation, le Ministre de l'environnement et du cadre de vie, le Ministre des ressources animales, sont chargés, chacun en ce qui le concerne, de l'exécution du présent décret qui sera publié au Journal Officiel du Faso.

OUAGADOUGOU, le 6 mai 2003

**Le Premier Ministre**



**Blaise COMPAORE**

**PARAMANGA Ernest YONLI**

Le Ministre de l'administration territoriale et de la décentralisation



**Moumouni FABÉRE**

Le Ministre de l'agriculture, de l'hydraulique et des ressources halieutiques



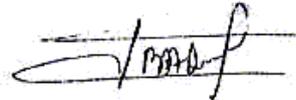
**Salif DIALLO**

Le Ministre de l'environnement et du cadre de vie



**Dakar DJIRI**

Le Ministre des ressources animales



**Alphonse Dofinwiya BONOU**

Le Ministre des finances et du budget



**Jean Baptiste Marie Pascal COMPAORE**

## P R E F A C E

It is an imperative for humankind to take up many challenges related to soft water, affecting food security, human health, economic and social development and the ecosystems sustainability in several places in the world and mainly in the sahelian region.

The importance of *Integrated Water Resources Management (IWRM)* as a way to meet these issues linked to water is subject to a consensus at the international level. The pending matter relies on the following question "**How to implement IWRM ?**".

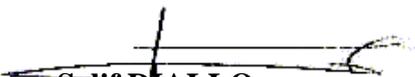
In September 2002, this main concern has been subject to a call of the world summit on the sustainable development in Johannesburg towards all the countries in the world to work out and implement the "action plan of the integrated water resources management" in the year 2005. The working out and adoption of this Action Plan in the early 2003 sets Burkina Faso in the leading bunch of countries in this area.

*The Action Plan for the Integrated Water Resources Management (PAGIRE)* is in keeping with the prospect of the water sector in depth re-structuring. The stakes concerned are considerable and in the proportion of the huge number of actors and interests sometimes diverging, but able to coexist when dealing with the water supply issue which is of a vital interest for our country.

*The Action Plan for the Integrated Water Resources Management (PAGIRE)* appears without any doubt as a widespread work of institutional innovations whose specific action structure for the thirteen (13) next years an in-depth reform planner of the water resources management framework in the country. Its implementation will constitute the base allowing to set up at term a true sustainable management of the country water resources.

Institutional innovations are as much a source of development as technical and technological ones. Under these circumstances, it is hoped that this approach will provide to the country the means to tackle in a sustainable way the challenges related to drinking water supply and sanitation of the various urban centres and rural communities, water economic valorization, self-funding capacity building in the water area and the knowledge building, the management and protection of water resources and milieus which depend on them.

May this 1<sup>st</sup> Action Plan for the Integrated Water Resources Management go a long way towards the achievement of the changes required for the joint and several and sustainable development in Burkina Faso.



Salif DIALLO

**Minister of state  
Minister of agriculture, hydraulics  
and fishing resources**



## ABREVIATIONS AND ACRONYMS

AEP	Drinking Water Supply
AEPA	Drinking Water Supply and Sanitation
AN	National Assembly
BTB	Building and Public Works
CGB	Basin Management Committee
CIE	Water Information Centre
CLE	Local Water Management Committee
CNE	National Water Council
CPAT	Provincial Committee for the Territory Development
CRAT	Regional Committee for the Territory Development
CSLP	Strategic Framework to Fight against Poverty
CTE	Technical Water Committee
DANIDA	Danish cooperation for the Development
DGAEP	General Direction of Drinking Water Supply
DGHA	General Direction of Agricultural Hydraulics
DGIRH	General Direction of Hydraulic Resources Inventory
DIPAC	Development of Private Irrigation and Connected Activities
DRAHRH	Regional Direction of Agriculture, Hydraulics and Fishing Resources
FCFA	CFA Francs
IWRM	Integrated Water Resources Management
IOTA	Installation, Equipment, Works and Activities
IRD	Research Institute for the Development in Cooperation (ex ORSTOM)
LPDRD	Policy Letter for Decentralized Rural Development
LIPDHD	Policy Intention Letter for Sustainable Human Development
MAHRH	Ministry of Agriculture, Hydraulics and Fishing Resources
MEE	Ministry of Environment and Water
ONG	NGO
PAGIRE	Action plan for the Integrated Water Resources Management
P.GIRE	Programme GIRE
PM	Prime Minister
RAF	Land Reform (Law and Decree)
SAGE	Waters Development and Management Plan
SDAGE	Waters Development and Management Master Plan
SG	General Secretariat
SIG	Geographic Information System
SIE	Water Information System
TOD	Decentralization Orientation Texts
UREO	Valorization of Water Resources in Western Provinces

# SUMMARY

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## FOREWORD

The Action Plan for the Water Resources Integrated Management (PAGIRE) is both a result and a starting point.

It is the result of a national political will : the one to express in concrete arrangements the decentralization concerning water management and the disengagement of the state from the production sectors to centre again on the missions of sovereignty (or 'regality' missions) ; it is also a will to engage a deep reform of an institutional and legal framework strongly centralized which has shown its limits and must henceforth let a large place to the participation of all the intervening parties ; finally it is a will to implement the water resources integrated management, as recommended on the international level, while adapting it to the reality in Burkina Faso.

It is also the result of a political will from Burkina Faso to participate always more actively in the sub-regional integration dynamics : building a consulted approach of water management –notably the shared waters- at the service of peace and meet the growth and development expectations of the countries in the sub-region.

As a result, PAGIRE constitutes the achievement of a process engaged by the Government since 1996 with the technical and financial assistance of Denmark Kingdom (Danida). The important phases of this process have been the launching of IWRM Programme in April 1999, the adoption in February 2001 of the 'Orientation law related to water management', and the publication in May 2001 of the synthesis document : 'Inventory of fixtures of water resources in Burkina Faso and their management framework'.

But more than being a result, PAGIRE is especially a starting. It defines tracks to solve water resources management problems in Burkina Faso, validated by the decision makers, the actors and the users as a whole.

The action plan, such as an architect's plan, describes the future configuration of the structure composed of all the elements related to the water resources management new approach. But as any architect's plan, it is yet only a plan. All the actors are invited to play an active role in its implementation :

- the State, naturally by a more significant materialization of the political options related to decentralization, disengagement and participatory approach which he has taken. The State is also called on to find in the action plan implementation, forms to rehabilitate and valorize its missions of sovereignty, forms to valorize expertise he has aggregated through its managerial staff and technicians ;
- the local communities : the orientation texts for decentralization have already conferred on them important prerogatives concerning water equipment management ; they express today a keen interest for their new missions, but they must still be assisted and advised on various levels so than they can really assume them ;
- the water users : being in the heart of water policy, they are those who benefit from it, who justify the costs, they are the water users and polluters, and for this, it is quite normal that they also contribute to finance water management ;
- the development partners of Burkina : their role consists in backing up the strong will of the government in this new orientation implementation and to make that the water sector, which is eminently strategic, contributes more to the socio-economic development of the country.



## SUMMARY

Water resources management is without any doubt one of the main stakes for the future of Burkina which heckles all the national community.

Indeed, vital needs for men and economic activities, issues of environment protection territory development, solidarity, equity, security, public health, and even defense, sovereignty and conflicts prevention are involved.

Therefore it is itself the scope of public action and civil action.

The model of public action in the historical circumstances of the State-Nation creation in Burkina Faso has strongly been characterized by the predominant weight of the State central administration and the development partners to ensure accelerated growth and modernization of water uses.

More than forty years after the independence, the results are mitigated ; indeed, till nowadays, droughts characterize deeply the life of the populations and the nation : they have led to a damage of the environment, to populations migrations towards zones which are yet humid and urban agglomerations as well as to a situation of chronic food insecurity.

In this context the reform of the public action is therefore scheduled on the agenda : deeply creator, it must free new energies and permit new liberty. It takes root in the State of right and decentralization defined by the Law as the basic axis to impulse the development democracy.

The adoption and promulgation of the law n<sup>b</sup> 002-2001/AN of February 8<sup>th</sup> 2001 related to the orientation law on water management, make Water Resources Integrated Management (IWRM) the foundation of the global strategy concerning the public action reform in the scope of water.

Indeed, IWRM involves a management reached by consensus and a participatory management of water resources between several intervening parties having different interests and various positionings and at different levels. It involves particularly the State, the local communities and the users.

The orientation law related to water management, through its provisions related to water Administration, to water and public services systems to the funding of water sector, engages the reconstruction of water sector.

The overall objective of the Action plan for the Water Resources Integrated Management (PAGIRE) is to :

**Contribute to the implementation of integrated water resources management in the country, adapted to the national context in conformity with the orientations defined by the burkinabè Government and respecting the principles acknowledged on the international level in relation to a sustainable, and ecologically rational management of water resources.**

Its specific objectives are the following :

- a) to define and plan the implementation of the future framework for water resources integrated management ;**
- b) to identify specific actions and propose the necessary means for their implementation.**

PAGIRE covers period 2003-2015 in two phases, respectively from 2003-2008 and 2009-2015.

The analysis of constraints and assets permit to identify the strategies below which will guide the implementation of the Action plan and therefore, the setting up of the future framework of the water resources management :

- ***To privilege the integrated approach in relation to the sectorial approach ;***
- ***To support the disengagement of the State, concerning water production and irrigated areas management ;***
- ***To propose a scenario with sufficient employees for the progressive restructuring of the public administration of water scope ;***
- ***To design an efficient and stable management framework in any ministerial configuration ;***
- ***To propose a progressive restructuring.***

Basing on these objectives and strategies, the great orientations of the plan have been defined as follow :

- ***To define the missions of the State ;***
- ***To set up the National Water Council (CNE) as a structure on the national level established for a consulted management of water and associating the State, the local communities, the private sector and the civil society in its various components ;***
- ***To build new management spaces on the basis of hydro-graphic basins as appropriate specific subdivisions for water planning and management ;***
- ***To reinforce the intervention capacity of local communities, the private sector and the civil society in the scope of water ;***
- ***To develop and reinforce the human resources.***

In the prospect of starting this vast set of innovations and changes, specific actions have been foreseen and will constitute the reform structure of the water resources management framework during the next 13 years. These actions are organized in eight (8) fields of actions defined as follow :

1. Field of actions n<sup>b</sup> 1 : **Enabling environment**
2. Field of actions n<sup>b</sup> 2 : **Water Information System**
3. Field of actions n<sup>b</sup> 3 : **Procedures**
4. Field of actions n<sup>b</sup> 4 : **Research/Development**
5. Field of actions n<sup>b</sup> 5 : **Human resources**
6. Field of actions n<sup>b</sup> 6 : **Information, education, sensitization, defense**
7. Field of actions n<sup>b</sup> 7 : **Institutional framework**
8. Field of actions n<sup>b</sup> 8 : **Emergency measures**

**The total cost of actions provided for the 1<sup>st</sup> phase of PAGIRE is 13.671 billion C FAF. The budget of the 2<sup>nd</sup> phase will be estimated in 2008 on the base of reviews and the assessment of the 1<sup>st</sup> phase.**

To raise the required financial resources, PAGIRE funding strategy provided for :

1. raising national resources ;
2. making the structuring programmes and significant investment programmes in the water sector contribute to support the implementation of the Action plan ;
3. raising foreign assistance to fund PAGIRE through, consultations with development partners.

The implementation of PAGIRE will constitute for the ministry in charge of water the base permitting at term to get in concrete terms a sustainable management of water resources in the country.

PAGIRE reviews have been provided for each three years, a mid-term evaluation in 2008 and a final evaluation in 2015.

Four risk factors have been identified concerning the Plan implementation.

1. The first risk factor is a political one : the success of the action plan implementation will be essentially related to the will and determination of the government to conduct it to its end ;
2. The second risk factor is related to the capacity of the managerial staff of the water public administration to appropriate the action plan and their engagement to implement it ;
3. The third risk factor concerns the appropriation of the Plan by the water users and the local communities ; (i) obtaining of a national consensus on the institutional aspects, (ii) interest given by these actors to the plan implementation and (iii) their determination to occupy and play the roles which are assigned to them in the management new framework ;
4. The fourth risk factor is related to the availability of the development partners to support the action plan implementation.

The following tables show a synoptic view of operational actions for PAGIRE implementation, presented per field of action and in a format of simplified logical framework.

## PAGIRE simplified logical framework

### PAGIRE overall objective

**Contribute to the implementation of water resources integrated management in the country, adapted to the national context in conformity with the orientations defined by the burkinabè Government and respecting the principles acknowledged on the international level in relation to a sustainable, and ecologically rational management of water resources.**

### PAGIRE specific objectives :

- to define and plan the implementation of the future framework for water resources integrated management ;
- to identify specific actions and propose the necessary means for their implementation.

### Field of action n<sup>b</sup> 1 : Enabling environment

Justification/objectives	Expected results	Activities
<p>The application of IWRM principles and tools requires that the rights duties and roles of all the intervening parties be clearly defined (state, local communities, users) in the action as a whole aiming at better know, better exploit, better divide the resource and better preserve the ecosystems.</p> <p>In this group the government must essentially play and more and more a role of facilitation, regulation and control so that favourable conditions be gathered to implement by consensus and efficiently IWRM.</p> <p>The government has particularly for first responsibility to set up favourable conditions for the practice of rights and duties of every person according to the rules of game known and accepted by all.</p> <p>The essential objective of this first field is therefore to set up under the State impulsion but in agreement and synergy with all the intervening parties, a political, legislative, statutory and financial environment, etc favourable to a good application of the principles of the water resources integrated management.</p>	<p>1.1. Laws, regulations norms, financial measures of water market regulation, incitation or dissuasion adapted</p>	1.1.1. Writing and making adopt application texts of the orientation law related to water management
		1.1.2. Drawing up and updating the Code of Water
		1.1.3. Applying the decentralization texts in the scope of water
		1.1.4. Setting up an administrative, economic and favorable environment for the development of the private sector in the scope of water
		1.1.5. Developing normalization on the purity of drinking water
	<p>1.2. The water policy adopted in 1998 has been updated and completed.</p>	1.2.1. Writing a document of 'Policy and strategies related to water resources management'.
		1.2.2. Drawing up the cooperation policy related to shared waters
		1.2.3. Introducing IWRM concepts and approaches in policies sectors in which water intervenes

<p>Such a responsibility of the State cannot be isolated from the other responsibilities concerning the institutional development (field of actions n<sup>b</sup> 7) actors training (field of actions nb 5) and information of citizens (field of actions n<sup>b</sup> 6).</p>		<p>1.2.4. Proposing future evolution of sharing of responsibilities concerning IWRM between the State and its dismemberments, the local communities and the development other actors.</p>
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## Field of action n<sup>b</sup> 2 : Water information system

Justification/objectives	Expected results	Activities
<p>The knowledge and follow up of water resources, uses, demands and risks related to water are indispensable basic elements to ensure water good management. This function of knowledge and follow up is developed through several stages which are basic data collection, their validation and stocking their processing, the diffusion of information obtained on water situation.</p> <p>To date only the resources quantitative follow up is ensured and not in a fully satisfactory way.</p> <p>The quality of water, the uses, the demands, the risks are not monitored or very less.</p> <p>Therefore it has seemed basic to provide for a set of actions to reinforce the existing monitoring, to set up new monitoring systems and better exploit the basic data for their interpretation.</p>	2.1. The quantitative monitoring networks of water resources are strengthened according to the needs of information and available financial resources	2.1.1. Reinforcing the quantitative monitoring of ground water resources
	2.1.2. Reinforcing the quantitative monitoring of underground water resources	
	2.2. The carrying out of monitoring national networks for waters quality, uses, demands and risks related to water is defined : a particular case of demands concerns the demands of water in humid zones.	2.2.1 Reinforcing the qualitative monitoring of water resources
	2.2.2. Reinforcing the monitoring of mobilization equipment and regulation of water resources	
	2.2.3. Defining and implementing the monitoring of water demand and uses	
	2.2.4. Defining and implementing the monitoring of water resources in humid zones	
	2.3. Simplified exchange procedures between the various producers and users of basic data are set up (harmonization of basic data collected and their formats)	2.3.1. Defining optimal information to be collected on the resources, the demand and usages, harmonizing their formats and developing the data exchange methods between the concerned actors.
	2.4. Data interpretation is improved and synthesis documents on the situation of water resources in the country are regularly produced	2.4.1. Defining and setting up a system of data validation and conservation
		2.4.2. Defining and implementing an evaluation system of water resources
		2.4.3. Defining and implementing evaluation system of water demand and its uses
2.4.4. Defining and implementing and evaluation and prevention system of risks related to water		

### Field of action n<sup>b</sup> 3 : Procedures

Justification/objectives	Expected results	Activities
<p>The procedures describe, to the attention of the institutional framework agents, how to apply the rules and regulations related to water. It concerns a field which has very often been neglected until now, having as consequence, the non application of texts or a variable application from an administration to another one or from one point of the country to another one.</p> <p>The actions of this field concern the most important procedures which will permit to guide the agents of the water administration in the application of laws and regulations taken in the framework of the enabling environment.</p> <p>Actions recommended are not exhaustive. Indeed, the Authorities are entitled to take decisions, write circulars etc. which precise how to apply any provision wanted by the lawmaker or by the Executive. This power has not been sufficiently used by the Administration</p>	3.1. The practical terms and conditions to enforce laws and regulations have been defined concerning installations equipment works and activities (IOTA) submitted to authorization or statement as well as the collection and allocation of financial contributions.	3.1.1. Defining and implementing enforcement procedures of the law and its statutory texts. Part (a) : Authorization/statement procedures on IOTA Part (b) : Collection and allocation of financial contribution
	3.2. Practical terms and conditions to enforce laws and regulations are defined concerning arbitration between the competitive uses..	3.2.1. Defining and implementing procedures for the distribution of the resource, arbitration between competitive uses and prevention and settlement of conflicts
	3.3. Practical terms and conditions of laws and regulations enforcement have been defined concerning the procedures to update documents of policy and planning related to water.	3.3.1. Setting up a monitoring and adaptation mechanism of policies and strategies concerning water
		3.3.2. Defining and implementing procedures to monitor and update PAGIRE
		3.3.3. Defining procedures to draw up, monitor and update SDAGE and SAGE
3.3.4. Defining procedures to draw up monitor and update pluriannual programmes for the intervention of basins organizations		

## Field of action n<sup>b</sup> 4 : Research-development

Justification/objectives	Expected results	Activities
<p>Basic knowledge on the cycle and use of water must be enriched to improve the exploitation of data collected in the framework of field n<sup>b</sup> 2 and more generally the knowledge on the water resources in the country and the techniques of its mobilization must be enriched.</p> <p>Some scientific and technical knowledge are presently judged insufficient to permit the best exploitation of data concerning the resource or to take relevant decisions. This field of actions corresponds therefore to a need of required additional knowledge to give the management framework all its efficiency..</p> <p>It consists in collaboration with the concerning competent partners to focus th studies and research efforts on themes interesting directly the managers of the resources thanks to expected results suitable to facilitate first the analysis and then the decision making.</p> <p>The actions recommended as far as studies and research are concerned limit themselves to this type of needs. They do not cover all the actions of studies and research/development on water and its uses which will be performed in better appropriated framework than an action plan for the transition to water resources integrated management.</p> <p>Nevertheless, actions recommended will contribute to better define these other actions among which some must also be in conformity with those of the other fields of action, particularly fields 6 (information, education sensitization, defense) and 7 (institutional framework).</p>	<p>4.1. (Quantitative and qualitative) evaluation of water resources has been improved including the evaluation of the impacts of various natural phenomena on the resource</p>	<p>4.1.1. Improving evaluation methods of water resources Part (a) : ground waters resources Part (b) : Underground waters resources</p> <p>4.1.2. Improving knowledge on the impact of climatic changes on water resources</p> <p>4.1.3. Improving knowledge on the relationship between water quality and the prevalence of hydrous diseases</p>
	<p>4.2. Knowledge on the reconstitution and mobilization of resources have been improved.</p>	<p>4.2.1. Assessing the methods to size hydraulic equipment</p> <p>4.2.2. Assessing the filling phenomena of dams through sedimentation</p> <p>4.2.3. Assessing the efficiency of collecting techniques for underground waters in base zone</p> <p>4.2.4. Studying the impacts of high flow exploitations on the underground water resources in base zone</p> <p>4.2.5. Assessing the efficiency of retention water tables recharging techniques</p> <p>4.2.6. Assessing the efficiency, economic cost effectiveness and the social benefit of rains provoked</p>
	<p>4.3. The evaluation of water demand is improved thanks to a better knowledge of usages, needs, quality requirements and users behaviour..</p>	<p>4.3.1. Improving the assessing methods of the demands and uses</p> <p>4.3.2. Conducting studies to adapt the norms of drinking waters purity</p> <p>4.3.3. Carrying out sociological, economic and legal studies to better know the practice of water resources management and the users behaviours</p> <p>4.3.4. Improving the knowledge on the water needs in humid zones</p>

## Field of actions n<sup>b</sup> 5 : Human resources

Justification/objectives	Expected results	Activities
<p>The actions of this field aim at lessening the impact of insufficiencies underlined by the 'Inventory of fixtures of water resources in Burkina Faso and their management framework' : insufficient and ageing employees, lack of recruitment, staff, to be redeployed or to be trained for IWRM new functions.</p> <p>The emphasis is put on the necessary trainings so that the services staff directly involved in IWRM can assume fully their new responsibility.</p> <p>Taking into account the competence transfer in the framework of decentralization and taking into account the generalization of participatory instances, the emphasis is also put on the development of human resources for the corresponding bodies.</p>	5.1. The human resources management in water administration have been reinforced	5.1.1. Methodological support to the Direction of the human resources of the Department in charge of water Part (a) : Formulation of a human resources management policy Part (b) : Steering and monitoring/evaluation of the training Plan
	5.1.2. Initial professional training of competence as regards water for the State, the local communities and the private sector	5.1.3. Support to the redeployment of water Administration staff : skilful training of agents to adapt them to their new positions
	5.2. The capacities of the staff from administrative structures responsible for the implementation of the State sovereignty missions concerning water have been strengthened	5.2.1. Period of probation training in working out and monitoring of water supply policies
		5.2.2. Period of probation training in statutory and institutional systems as regards water
		5.2.3. Period of probation training in technique, equipment and strategy of communication to the benefit of water supply sector and IWRM
		5.2.4. Period of probation training in international policy and cooperation as regards water supply
	5.3. The capacities of staff from technical administrative structures responsible for implementing water management new functions have been strengthened, mainly concerning technical management (knowledge, monitoring, protection) of water resources, usages and environment which depend on it through the implementation of water information system, water policy, etc..	5.3.1. Training to IWRM of the staff as a whole from the Department in charge of water
		5.3.2. Training in monitoring/evaluation (qualitative and quantitative) of the resource, in monitoring of the demand, uses and needs of ecosystems.
		5.3.3. Training of agents responsible for water police
		5.3.4. Training in planning and development chart and water management
		5.3.5. Training in impact monitoring/evaluation
	5.4. The capacities of the persons responsible for technical administrative structures in charge of the implementation of the water management new functions have been strengthened mainly in relation to water administrative management (planning, water policy, regulation, monitoring,...) and support-advice to local communities.	5.4.1. Training in work organization and staff management
		5.4.2. Training in public management
		5.4.3. Training in administrative law
		5.4.4. Training in support-advice approaches applied to water sector
	5.5. The capacities of the actors from the water public sector involved in IWRM (other than those of the Department in charge of water) have been reinforced	5.5.1. Training to IWRM of managerial staff from category A of the other ministerial departments concerned by water resources management
		5.5.2. Training to IWRM of agents from basins organizations
	5.5.3. Training to IWRM of agents from local communities Part (a) : Technical agents from communes Part (b) : Technical agents from provinces Part (c) : Technical agent from regions	

	<p>5.6. The capacities of actors from the private sector have been reinforced as far as IWRM is concerned through the training of a representative sample of technical staff (firms and planning offices leaders, design and execution agent, etc)</p>	<p>5.6.1. Training to IWRM of agents from the private sector.</p>
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**Field of actions n<sup>b</sup> 6 : Information, education, sensitization**

Justification/objectives	Expected results	Activities
<p>The success of PAGIRE relies on the adhesion and participation of all the actors and the sustainability of its results relies on its appropriation by these same actors. It is the meaning of actions in this field which aim the largest information and participation of the civil society and political decision makers..</p>	<p>6.1. The population is well informed on the content of the orientation law related to the water management and its implications in the current life, on issues of water resources in the country and on the institutional reform in progress</p>	<p>6.1.1. Informing users on IWRM 6.1.2. Introducing notions of IWRM in education and basic training programmes 6.1.3. Informing opinion leaders on IWRM principles and tools</p>
	<p>6.2. The population and the professionals are sensitized to water saving and techniques to mobilize and reconstitute the resource</p>	<p>6.2.1. Promoting water savings 6.2.2. Promoting in base zone, the implementation of collecting techniques of underground waters liable to improve the flows 6.2.3 Promoting the implementation techniques of the resources reconstitution</p>
	<p>6.3. The actors and decisions makers concerned by water play efficiently their role in the management new frame thanks to a large information on IWRM and the reform in progress and thanks to an easy access to water data</p>	<p>6.3.1. Informing professionals and decision makers on the reform in progress in water sector 6.3.2. Introducing IWRM notions in the specialized training programmes 6.3.3. Promoting the participation of professionals and decision makers in water resources management 6.3.4. Promoting the Water Information System (SIE) and the Water Information Centre (CIE) with the professionals and decision makers.</p>
	<p>6.4. IWRM is effectively taken into account in the sectorial policies of other departments thanks to a better comprehension of its principles and methods.</p>	<p>6.4.1. Conceiving and implementing defences actions for the promotion of IWRM with the political decisions makers and development partners 6.4.2. Promoting the integration of IWRM principles in the other sectors using water or concerned by water</p>

## Field of actions n<sup>b</sup> 7 : Institutional framework

Justification/objectives	Expected results	Activities
<p>The document entitled 'Policy and strategy related to water' adopted in July 1998, the adoption of the orientation law related to water management on February 8<sup>th</sup> 2001 and the actions which have been performed since three years by IWRM programme illustrate the will shown off by the state to set up an institutional framework adapted to the water integrated management.</p> <p>Since the institutions are the essential instrument to implement the policy, the institutional framework reform becomes a requirement in order to set up an administration water in conformity with the orientation law related to water management and respectful of the basic rules and principles of a management which guarantees equity between the users, the sustainability of the resource and the ecosystem balance.</p>	<p>7.1. The water new administration (central and decentralized) has been set up with the capacities :</p> <p>(i) to ensure the drawing up and the monitoring of an adapted policy and the regulation ; (ii) to ensure the functions of water police ; (iii) to harmonize and coordinate the actions of public services in the sector of water ; (iv) to develop on the national level a water information system ; (v) to develop and monitor the sub-regional and international cooperation related to water ; (vi) to bring the required support advice to the other actors.</p>	<p>7.1.1. Restructuring water central administration.</p> <p>Part (a) : to set up and make operational a specific mission in charge of the coordination of PAGIRE implementation and monitoring/evaluation</p> <p>Part (b) : To reorganize the central services in charge of water</p> <p>Part (c) : To set up a specific structure in charge of the drawing up, implementation and monitoring/evaluation of water policy</p> <p>Part (d) : To set up a specific structure responsible for the water legislation and regulation</p> <p>Part (e) : To set up a specific structure in charge of the organization and monitoring of sub-regional co-operation related to water</p> <p>Part (f) : To set up a specific structure responsible for the organization and management of a water information central system and a water information centre</p> <p>7.1.2. Restructuring water devolved administration</p> <p>Part (a) : To reorganize devolved services in charge of water</p> <p>Part (b) : To set up at the level of each region a structure responsible for the organization and the water information system management</p> <p>7.1.3. Organizing water police</p> <p>7.1.4. Making operational the actions of the State as far as water resources are concerned</p> <p>Part (a) : On the central level (CTE)</p> <p>Part (b) : On the regional level (CRAT)</p> <p>Part (c) : On the province level (CPAT)</p> <p>7.1.5. Creating a thematic committee of water research programmes</p>
	<p>7.2. The Water National Council (CNE, decree n<sup>b</sup> 2003-539/PRES/PM/MAHRH of November 27<sup>th</sup> 2002 has been applied and is operational..</p>	<p>7.2.1. Setting up the National Council of Water (CNE) and support the starting of its activities</p>
	<p>7.3. Basins organizations have been created and are operational. They have the capacity to manage water in their competence areas and assure the control, collection and allocation of financial contributions based on the 'deducter-payer' and 'polluter-payer' principle.</p>	<p>7.3.1. Setting up basins organizations and support the starting of their activities</p> <p>Part (a) : Basins management committees</p> <p>Part (b) : Basins agencies</p> <p>Part (c) : water management local committees</p>

	<p>7.4. Local communities have the capacity to assume their new attributions concerning water management resulting from the decentralization policy</p>	<p>7.4.1. Supporting local communities in the setting up of competent services as far as water resources are concerned</p> <p>Part (a) : On the communal level (50 communes)</p> <p>Part (b) : On the provincial level (45 provinces)</p> <p>Part (c) : On the regional level (10 regions)</p>
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## Field of actions n<sup>b</sup> 8 : Emergency measures

Justification/objectives	Expected results	Activities
<p>The inventory of fixtures has identified a number of situations particularly worrying for water resources or the environment of humid zones. It concern situations having already an unfavourable perceptible impact on environment, but especially on the socio-economic activities of the populations : insufficiency of underground water resources in numerous secondary centres of base zone due to excessive reduction of the water table, damage of waterways, sedimentation in water plans, proliferation of aquatic plants.</p> <p>The resolution or the lessening of these problems imposes urgent and targeted actions.</p>	8.1. Alternative ground water resources have been found to feed in drinking water secondary centres experiencing a critical situation of their underground waters.	8.1.1. Alternative ground water resources are searched for to supply in drinking secondary centres experiencing a critical situation of their underground waters
	8.2. The most fragile aquatic ecosystems have been protected..	8.2.1. Protecting fragile aquatic ecosystems. 7 sites have been selected : Guingette, Beli, Bam, Sourou valley, Tengrela, Oursi and Yomboli
	8.3. The banks of the most threatened waterways have been protected and restored.	8.3.1. Implementing protecting measures of the Nakambe and Mouhoun banks
	8.4. Water plans threatened by the proliferation of aquatic plants have been restored	8.4.1. Implementing measures to struggle against the silting up of lakes and dams (5 sites among which in the first place Bam Lake)
	8.5. Silting up phenomenon has been reduced on the most threatened water plans	8.5.1. Implementing a plan for an integrated struggle against the invasive aquatic plants (VAE) on the most affected milieu and further, on the territory as a whole

## 1. INTRODUCTION

Water is an indispensable and essential resource for any human, animal, vegetal life, for the nature biological balance and for human activities. It is a natural, limited, fragile, irreplaceable resource.

As regard to the Constitution of Burkina 'natural wealth and resources belong to the people. They are used to improve the conditions of life' (art. 14). The Constitution also indicates 'the right to a healthy environment is recognized ; the protection, defence and promotion of the environment constitute a duty for all' (art. 29).

The water resources management in Burkina Faso is therefore one of the main stakes for the future which heckle all the national community.

Indeed the vital need for men and economic activities, the issues of environment protection, territory development, solidarity, equity, security, public health and even defense and sovereignty are involved.

It is therefore itself the scope of public action and civil action.

The model of public action in the historical circumstances related to the creation in Burkina Faso of the State-nation has been strongly characterized by the predominant weight of the State central administration and the development partners to ensure an accelerated growth and modernization of water uses.

More than forty years after the independence, the results are mitigated ; indeed until nowadays, droughts –worsened by anthroponic factors– characterize deeply the life of the populations in the nation : they have conducted to a damage of environment, to populations migrations towards zones which are yet humid and towards great urban centers as well as to a situation of chronic food insecurity.

An important part of the population doesn't have access to drinking water in a reasonable distance neither to sanitation. Irrigation is experiencing a very restricted extension despite the important investments granted.

Even when investments in the water sector constitute already an increasing part of the debt of the country, the exploitation, maintenance and management of hydraulic infrastructures and equipments are not yet satisfactory.

The population increase, the development of towns and some industries contribute to the emergence of water pollution and public health issues. In the same way, the management of risks related to water and international waters management are to be improved.

Finally, the knowledge of water resources, their management and protection are not yet up to the requirements.

The reform of public action is therefore in the agenda : it must generate new energies and permit new liberty. It takes roots in the State of right and decentralization defined by the law as basic axis to impulse democracy and development.

The adoption and promulgation of the orientation law related to water management (law n<sup>b</sup> 002-2001/AN of February 8<sup>th</sup> 2001) make the Water Resources Integrated Management (IWRM) the base of the global strategy to reform the public action in the scope of water.

*The Integrated Water Resources Management (IWRM) is a process which favours the co-ordinated development and management of water, lands and related resources in order to maximize in an equal manner the economic and social well being resulting from it, without for all that compromising the timelessness of vital ecosystems.*

In this prospect, the objective of the Action Plan for IWRM (PAGIRE) is precisely to define operational strategies, specific actions and the working plan which will permit a deep reform of the institutional, legal, technical and financial framework of the water resources management in the country.

This action plan document for the Water Resources Integrated Management (PAIWRM) is composed of the following chapters :

1. Introduction ;
2. Assets and constraints of the water resources management ;
3. Objectives of the Action Plan ;
4. Action Plan strategies ;
5. Important strategic actions of the Action Plan ;
6. Operational actions to implement the action plan ;
7. Funding cost and strategy of the action plan ;
8. Terms and conditions to implement the action plan ;
9. Conclusion.

## **2. ASSETS AND CONSTRAINTS OF WATER RESOURCES MANAGEMENT**

In Burkina Faso, a country of jacobin tradition inherited from French administration, the state has for long personified the very powerful.

At the independence period, the situation was particularly characterized since the other actors which are the local communities and all the civil society, the urban society as the rural one were weak or less structured.

Then, due to the importance of the State public funding on the one hand notably with the public help to the development and on the other one the slowness related to the State of right and democracy, the State central public administration has found itself to be the main force capable to assume, for the account of the Nation the essential functions concerning water management.

These are succinctly outlined the historical bases of the political, institutional and legal framework of water sector, whose strength and weakness constitute as many assets as constraints for the reform of the public actions in the so-called sector.

### **2.1. ASSETS**

#### ***2.1.1. National policies and strategies***

Since the beginning of 1990's, Burkina has implemented important reforms in order to create an institutional, economic and political environment, favorable to the resumption of a sustainable growth in a context of economy opening and liberalization. For this purpose, several framework documents and sectorial plans have been adopted among which some are reminded below.

##### *2.1.1.1. Policy Intention Letter for Sustainable Human Development (LIPDHD)*

The Policy Intention letter for Sustainable Human Development letter (LIPDHD) drawn up in 1995 has for purpose to contribute to focus the development of the country on the human security concept permitting to each burkinabè to have access to :

- economic security linked to a remunerative job ;
- health security : access at lower cost to medical care, as well as preventive as curative care ;
- food security : access to a basic food including water ;
- environmental security : related to the preservation of a health environment ;
- individual and political security.

##### *2.1.1.2. Strategic Framework to fight against Poverty (CSLP)*

In the continuation of LIPDHD, the burkinabè authorities have drawn up in 2000, with the support of development partners a Strategic Framework to fight against Poverty (CSLP). Reference and cooperation framework between Burkina and its development partners, CSLP has for ambition to reduce the population poverty level, its vulnerability facing the crises of any nature and the inequality between regions and socio-economic groups.

The carrying out of CSLP is based on some programmes organized in four strategic axes for which priority actions are recommended :

1. To accelerate growth and base it on equity ;
2. To guarantee access of the poor to basic social services ; education, health, drinking water, habitat, ;
3. To widen the opportunities of job and activities generating incomes for the poor ;
4. To promote good governance.

#### *2.1.1.3. Policy letter for Decentralized Rural Development (LPDRD)*

Basing on experiences and lessons drawn from the different approaches to implement rural development projects and programmes during the last decades (projects approaches, integrated rural development approaches, participatory approaches, etc.) actions related to rural development are today in keeping with the local development approaches. The convergence of these different approaches have conducted to the 'decentralized rural development' vision whose basic principles are stated in the Policy Letter for Decentralized Rural Development (LPDRD).

Seven basic principles stated in LPDRD are the base of the local development or decentralized rural development in Burkina. These principles are the following :

2. Entire responsibility of the root communities, involving that the Ownership of the investments be ensured by the recipients themselves, organized in representative structures ;
3. The extension of the investments range funded by projects and programmes in order to take into account the recipients priority needs ;
4. The redefinition of the State role ;
5. The co-funding of investments ;
6. The consultation at different levels in order to limit the incoherence and organize complementarity ;
7. The flexibility which supposes the adaptation of tools to local specificities ;
8. The funds fungibility.

#### *2.1.1.4. State reform through the effective implementation of decentralization*

The Constitution of Burkina Faso adopted in June 2<sup>nd</sup> 1991, fundamental Law of the country, indicates in its article 145 that 'the law organizes the democratic participation of the populations in the local communities free administration'.

In agreement with the constitutional foundation of June 1991, the National Assembly in Burkina Faso has adopted in August 1998 the Decentralization Orientation Texts in Burkina Faso (TOD) modified in 2001.

- Law n<sup>b</sup> 040/98/AN of August 3<sup>rd</sup> 1998 related to the decentralization orientation in Burkina Faso ;
- Law n<sup>b</sup> 041/98/AN of August 6<sup>th</sup> 1998 related to the organization of the territory administration in Burkina Faso ;

- Law n<sup>b</sup> 042/98/AN of August 6<sup>th</sup> 1998 related to the organization and running of local communities,
- Law n<sup>b</sup> 043/98/AN of August 6<sup>th</sup> 1998 related to the programming of decentralization implementation ;
- Law n<sup>b</sup> 013-2001/AN of July 2<sup>nd</sup> 2001 related to the modification of laws n<sup>b</sup> 040/98/AN, n<sup>b</sup> 041/98/AN and n<sup>b</sup> 043/98/An aforementioned and concerning regions.

Since the independence of the country, it is without any doubt the most important reform of the country because it opens to urban and semi-urban centers, to regions and provinces, the possibility to acquire a legal entity of public right different from that of the State, a financial autonomy and the right to administrate themselves freely. Article 2 of law n<sup>b</sup> 040/98/An of August 3<sup>rd</sup> 1998 related to the decentralization orientation in Burkina Faso provides for the following provision : ‘...decentralization constitutes the basic axis to impulse development and democracy. Decentralization establishes the right for local communities to administrate themselves freely and manage their own matters in order to promote root development and reinforce local government’.

#### 2.1.1.5. *Water national policy*

The document entitled ‘Policy and strategy related to water’ adopted by the government of Burkina Faso has been approved by the decree n<sup>b</sup> 98-365/PRES/PM/MEE of September 10<sup>th</sup> 1998. The water national policy which is defined there opens prospects for a sustainable institutional development through :

- a consulted institutional and financial mobilization of the State, the local communities and the users ;
- The sector integration in the overall framework of the political, social and economic development ambitions in the country (decentralization, gender, private sector development, creation of jobs and incomes).

We must also underline, in support to water national policy :

- the law n<sup>b</sup> 14/96/ADP of May 26<sup>th</sup> 1996 related to land Reform ;
- the law n<sup>b</sup> 006/97/ADP of January 31<sup>th</sup> 1997 related to the forest Code ;
- the law n<sup>b</sup> 023/97/II/AN of October 22<sup>th</sup> 1997 related to the mining Code ;
- the law n<sup>b</sup> 023/94/ADP of May 19<sup>th</sup> 1994 related to the Code of public health.

Besides, in application of the national policy, we can note :

- the existence of the national strategy related to the sanitation sub-sector ;
- the decree n<sup>b</sup> 2005-514/PRES/PM/MEE of November 3<sup>rd</sup> related to a framework document of the AEP infrastructures management system reform in rural and semi-urban milieu ;
- the decree n<sup>b</sup> 97-598/PRES/PM/AGRI/MEE/MRA/MEF of March 3<sup>rd</sup> 2000 related to the adoption of the overall specifications for the management of small hydro-agricultural developments ;
- the implementation of structuring interventions like IWRM programme, UREO programme, AEP infrastructures management system reform in rural and semi-urban milieu, the Development of Private Irrigation and Connected Activities (DIPAC) and the project for the small irrigation promotion.

#### *2.1.1.6. Law n<sup>b</sup> 002-2001/AN related to the orientation law of water management*

With the promulgation of the orientation law related to water management, Burkina is carrying out an important turning point in its institutional, legal and financial device concerning water management.

In its conception this law is not an additional layer added simply to a legislative and statutory set which is already considerable. It characterizes a turning point in the evolution of the national right. It corresponds firstly to an unification and simplification will.

Secondly, the law transposes in the national right the international commitments signed by the country.

Then, the law contributes to implement new orientations of water national policy aiming at a water resources integrated management.

Finally, the orientation law related to water management is also a law of clarification and means which must immediately be in keeping with the legal scheduling.

The new law is composed of seven chapters dealing with the basic elements below :

1. application subject and range ;
2. water administration ;
3. water flow ;
4. public services organization in the water sector and control of its uses for economic purposes ;
5. water sector funding ;
6. penal provisions ;
7. transitional provisions.

#### ***2.1.2. An increasing role of the civil society and the private sector***

Since the 1980's, the State, through different forms of delegation has entrusted the recipients communities of modern water supply points with the Ownership of these infrastructures. Today, several thousands of public drills are concerned.

Private sector is particularly active under its two forms :

- in the formal sector, it intervenes in peri-urban irrigation, the building of equipment for the mobilization of water resources and autonomous sanitation, the supply of goods and services in the framework of public contracts (BTP, supply of equipment and after-sales department, engineering) ;
- in the informal sector, it intervenes in the resale of water in the peri-urban districts, the management of household waste, the maintenance and mending of 'exhaure' equipment.

We must underline the creation and development -thanks to the reinforcement of the State of right and democracy- of organizations from the civil society which are active in water sector and are positioned in the scopes of water policy, engineering, authority and consumers defence...

## 2.2. CONSTRAINTS

There are several orders of constraints :

- institutional, organizational and human ;
- legislative and statutory ;
- economic and financial ;
- technical ;
- communication order.

### 2.2.1. *Institutional, organizational and human constraints*

- **An important number of the State public institutions disposing of legal prerogatives to intervene in the scope of water, with however a failing of the coordination and integration in their actions.**

Almost all the ministerial departments are concerned by water under one or another of its form or uses. The lack of coordination between the institutes and the bad structuring between the functional levels are source of competence conflicts, bad use of resources and ineffectiveness.

- **The State dualistic role and the poor devolution of power and services**

The administration responsible for water is in the position of party as owner of the water uses and the position of judge concerning the application of the regulation to these same uses. Finally, legislation and regulation have a restricted significance and their non application is the most observed consequence.

To this situation, the poor concentration of the State technical services must be added having for consequence, the centralization of decision on the central scale, the inhibition for initiative capacities, local and private action which develop the spirit of aid.

- **The strong dependence of the State services towards the external resources.**

The poor provision of the State services in running funds make them particularly dependent from the external resources.

- **Human resources which are running low, with competence strongly orientated towards the water uses technical aspects.**

The following elements must be picked out :

- issues of employees and ageing, worsened by the lack of new agents recruitment which compromise the relief to some extent ;
- issues for the definition of post and the management of the agents careers ;
- questions related to the insufficiency of agents motivation, inciting those who can, to leave Public service and turn towards better opportunities : international organizations, project, private sector, NGOs, etc.) ;
- the existing competence is strongly orientated towards the water uses technical competence with a notable lack of some indispensable competence like jurists, economists, sociologists, etc.

- **Almost inexistant human resources in the local communities**

In their great majority, local communities do not dispose of qualified staff capable to assume the new missions assigned to them in the framework of decentralization ;

- **Populations with failing participatory capacities.**

Illiteracy, the lack of training and information of the populations constitute obstacles to their conscious and responsible participation in the water resources sustainable management.

### ***2.2.2. Legislative and statutory constraints***

Since the origin of the national right of water, texts have been revised, arranged, modified or abrogated : numerous new texts have appeared but they haven't always taken into account the existing texts having for consequences discordances and even contradictions.

Besides the structuring and harmonization between these texts, their applicability constitutes a problem because of either the lack of application despite the existence of statutory texts.

Concerning cooperation in the management of shared waters, it is suitable to underline that except the Niger Basin, Burkina hasn't signed any convention with countries with which he shares resources. Moreover, some conventions related to the use conditions of international waters have been signed by Burkina but these conventions have not yet been ratified.

Finally we can note that the common law has not yet been taken into consideration in the official legal and administrative system.

All that results for most from the poor internalization of the normative device worked out by the State. Besides, the context of illiteracy, informalisation of economic and social life, poorness of the State own means, makes still more difficult the application of this normative device.

### ***2.2.3. Economic and financial constraints***

The water sector is mainly financed by external resources (loans or donations to the State) at more than 80 %.

The current funding system of water sector is characterized by :

- its strong dependence towards foreign countries in terms of resources ;
- the poor development of water economic uses ;
- the poor raising of internal financial resources.

### ***2.2.4. Technical constraints***

In Burkina Faso, an agricultural and sahelian country, the matter of water is not only crucial but it concerns several actors whose needs and interests are various, multiform and competitive, and even conflicting. Their activities just as different and their possible impacts on environment (water, other milieus which depend on it, life environment, etc) can only be objectively and properly described by quantitative data (quantities of water deducted, pollution generated, equipment built, etc) without which it is not possible to envisage a water good management. In the same way underground or surface water reserves constitute indispensable elements of knowledge to establish adequacy between what is available and the needs.

The organization, funding and implementation of activities related to the collection, stocking, processing, and diffusion of data are not adapted to the sustainable development requirements.

Despite the efforts made, serious shortcomings remain in the following areas :

- water quality monitoring ;
- water uses and milieu monitoring ;
- documentation on surface waters and the main known aquifers ;
- regularity in the production of hydrological directory ;
- databanks updating ;
- modelling ;
- implementation and exploitation of Geographic Information System (SIG) ,
- information on water ;
- strategy to develop knowledge on water resources and the water different functions ;
- practice of water police ;
- fight against pollution resulting from urban, industrial, agricultural and mining activities.

#### ***2.2.5. Constraints in the field of communication in relation to water management***

Generally, we note a net deficit of communication related to water. The structures which intervene directly do not dispose of communication strategy despite the existence of a set of various and complementary communication vectors in direction of the different target groups.

### 3. ACTION PLAN OBJECTIVES

The orientation law related to water management, through its provisions concerning water Administration, water systems and public services organization, the funding of water sector, engages the restructuring of water sector in conformity with the principles of water resources integrated management (IWRM).

IWRM strongly recommends a consulted and reached by consensus management of water resources between all the intervening parties. Now, these ones have divergent interests and different positionings and at different levels. IWRM involves particularly the State, the local communities and the users.

Therefore it consists in the current context of Burkina Faso to organize progressively and concrete way the transition from the sector management approach which gave the priority to the State public administration, to a management approach which brings up and put into concrete form the common responsibility of the State, local communities and users in the management of water resources defined by the constitution as the nation heritage.

The overall objective of the Action Plan for Integrated Water Resources Management (PAGIRE) which follows from the water national policy adopted in July 1998 is to :

**Contribute to the implementation of integrated water resources management in the country, adapted to the national context in conformity with the orientations defined by the burkinabè Government and respecting the principles acknowledged on the international level in relation to a sustainable, and ecologically rational management of water resources.**

The specific objectives of PAGIRE are :

- a) to define and plan the implementation of the future framework for water resources integrated management ;**
- b) to identify specific actions and propose the necessary means for their implementation.**

#### 4. ACTION PLAN STRATEGIES

The analysis of the major problems and the assets permits to clear the strategies below which must guide the implementation of the water resources management future framework and the content of the Action plan :

- ***To privilege integrated management with relation to sectorial management.***

Numerous problems underlined find their origin in the contradictions –or at least in the lack of harmonization and coordination –between the sectorial policies of the various public departments.

The water management new form, by privileging an integrated approach aims at favouring significantly the integration of water policy and the other sectorial policies, particularly those of agriculture, stock breeding, environment, health, industry and mines, territory development ;

- ***To support the delegation process of the State competence in relation to water management for economic purposes.***

In its chapter IV, the orientation law related to the water management stipulates the possibility for the State to delegate some of its competence concerning water use for economic purposes.

Therefore the strong rising of new actors, local communities or private actors must be conducted in parallel with this delegation so that to avoid any breaking off in the management various functions.

Particularly, drinking water management and the irrigated areas management are two scopes where the conditions of the State progressive disengagement must be carefully examined.

- ***To propose a scenario with a sufficient staff for the progressive restructuring of the public administration in the water sector.***

A very worrying aspect of the water resources management in Burkina concerns the regression of the employees working in the department responsible for water. The analysis of trends in terms of employees (engineers, technicians, all levels) has shown a situation which is already in deficit today with relation to the missions to be performed, but which will be quickly dramatic in the next years if a development plan of the human resources does not intervene without delay to ensure in the future a renewing of the managerial staff and technicians of the department and give to the State the means to ensure the missions which will remain his, in the future institutional framework.

- ***To conceive an effective and stable management framework in any ministerial configuration***

The successive ministerial configurations which Burkina Faso has experienced were firstly the result of political choices. Since water sector is a transversal one, it must keep a strong interaction capacity with the other sectors. Therefore an institutional framework must be conceived in order to permit the department in charge of water to keep functional mechanisms with the other sectors in all scenario of governmental organization.

It consists to make sure that the water resources management will correctly function, whatever be its positioning in the governmental organization chart and will resist to the use and time.

- ***To propose a progressive restructuring***

The reform of the water resources management framework is a deep and long term operation with numerous political, economic and social implications. It is obvious that time will be necessary to turn from the current framework to the future framework of water resources management.

So, the action plan must propose the restructuring important stages in a long term vision of the process, but it must also indicate specific actions to be carried out and propose a work plan to guide the process.

In coherence with the reform progression, redeploying human resources and capacities reinforcing must also be carried out according to a progressive plan so that the State can hand over control to new actors –the local communities, the users, the structures with parity of representation such as the Water National Council, the basin management Committees and the basin agencies– without breaking off in the performance of missions assigned to everybody.

## 5. IMPORTANT STRATEGIC ACTIONS OF THE ACTION PLAN

The new orientation law related to the water management is the beginning of the institutional, legal and financial manifestation of the decentralization in the domain of water. It is nowadays the pivot and the foundation of deep reorientations to realize in the management of water resources, from the viewpoint of the actors role and place as well as their behaviours.

The orientation law related the water management has opened a large site of institutional innovations.

- by introducing different levels and tools of public and collective regulation of water sector ;
- by creating conditions to emphasize, make credible and increase the value of the State sovereignty missions in the domain of water ;
- by introducing the principle of the water sector financing by the users.

In this context, it consists in defining in concrete and precise terms the main elements that will allow to start these innovations.

PAGIRE important orientations are built around the following thrusts :

- redefinition of state missions ;
- setting up of National council for water ;
- creation of new management spaces ;
- reinforcement of the intervention capacities in the domain of water of local communities, private sector and non trading company ;
- development and reinforcement of human resources.

### 5.1. REDEFINE THE MISSIONS OF THE STATE

#### 5.1.1. *State sovereignty missions*

The redefinition of the State in its first role concerning the implementation of its sovereignty missions in the domain of water is without any doubt one of PAGIRE essential components.

State sovereignty missions are general interest missions that no higher will can dictate to the State and that any structure has neither the capacity nor the legitimacy to perform and which must be carried out to commit the nation in the development way.

Nowadays the development of a local public action, the initiatives developed by private operators in irrigated agriculture, the management and the development of water public service in semi-urban and rural areas, show that the historical role assumed by the state central public Administration in these domains can and must be now revised.

In this way, the State is committed in the carrying out of general interest missions that work in favour of the adapted modernization of water sector like :

- The creation and stabilization of a legal, economic, financial and fiscal environment favourable to the expression of the local communities, the civil society and the private sector dynamism ;
- The promotion of water uses ;
- People and property protection against nuisances and natural disasters linked to water ;
- Protection of waters and areas that depend on it against various nuisances and pollutions consequences of human activities ;
- Water policy.
- The development of knowledge in the domain of water by the means of studies and research on water resources, the areas that depend on it, the uses of water and the mastery of their impacts ;
- The development of capacities by training support-advice and information ;
- The development of international cooperation.

The carrying out of these missions must be better organized at the different levels of the State public action.

### **5.1.2. Organize the implementation of State sovereignty missions at the different levels of the public action**

#### *5.1.2.1. Roles and responsibilities of the government*

Government is responsible for :

- the development policies and strategies of water sector ;
- the initiative of laws and regulations elaboration and their enforcement ;
- the creation of a favourable legal, economic, financial and fiscal environment ;
- international cooperation policies as regards water.

In accordance with article 13 of the orientation law related to water management, the ministry in charge of water is the institutional guarantor of the water resources integrated management. As such the ministry makes sure that all the government prerogatives scheduled in the orientation law related to water management be carried out.

Under the government responsibility, the State central structures work out, train and conduct the implementation of actions relating to these prerogatives as regards water. In particular water central administration will have the following attributions :

- To elaborate and implement the national policy as far as water is concerned ;
- To monitor and support the development of the international cooperation in the domain of water ;
- To set up and maintain at the national level the information system on water ;
- To elaborate the legislation and regulation in the domain of water and watch over its enforcement ;
- To elaborate the elements for the creation of a legal, economic, financial and favourable fiscal environment ;
- To elaborate and implement a development and reinforcement strategy as regards human resources in the domain of water .

### **State devolved services, territorially competent, will have among other attributions :**

- To set up and conduct the information system on water (SIE) ;
- To ensure notably the water policy ;
  - To inform the users on the laws and regulations in force ;
  - To follow through laws and enforcement regulations ;
  - To record laws and regulations breaches ;
  - To study the application files for authorization and statements of equipment and activities in the domain of water ;
- To monitoring and support the activities of the management structures of basins ;
- To provide the required support-advice to local communities and other parties.

#### *5.1.2.2. Water technical committee (CTE)*

According to the terms of article 83 related the law n<sup>b</sup> 014/96/Adp dated may 26<sup>th</sup> 1996 concerning and Land reform (RAF) a technical committee for water has been instituted responsible for proposing development fundamental options as regards resources in water and which attributions and composition are determined by a decree.

It consists of a State public administration body, destined to coordinate the sectorial policies of the different ministries. This frame must also allow the State to have an harmonized view point on questions related to water within the water National Council (CNE).

Articles 119 to 121 of decree 97-054/PRES/PM/MEF concerning the conditions and modalities to enforce law on RAF, determine the composition and the role of the water technical committee and its permanent secretariat. It is composed of ministerial general secretaries (or their representatives) involved in hydraulic developments.

#### *5.1.2.3. Role and responsibilities of administrative districts (regions, provinces, departments and villages)*

Administrative districts are the State territorial representative frames. Heads of administrative districts (governors, high commissioners, prefects) ensure the unity of State representation by the coordination of the ministries devolved services. They watch over devolved services good running, laws and regulations enforcement. They are judicial police officers and are responsible for the national interests and public order.

In accordance with TOD provisions and particularly with their provisions related to the delegation of authority to devolved authorities, devolved services responsible for water are placed under the direct authority of the devolved authority of their territorial province (governors, high commissioners, prefects according to cases).

### **As such, administrative districts will have among other attributions :**

- To supervise devolved services activities and watch over their good running ;
- To record the statements and see to it that installations, equipment works, and activities (IOTA) submitted to statements are exploited in conformity with their prior destination;
- To record authorization applications and take IOTA authorization by-laws ;
- To watch over IOTA authorization by-laws enforcement ;
- To watch over the protection of the public domain of water ;
- To contribute to the fulfilment of Burkina international commitments as regards the management of shared waters.

The head of administrative districts will be expected to play a more important role in the police of water. They are helped by inter service consultation frameworks on water, composed at least of regional directions responsible for water, health, agriculture, breeding, fishing, forestry commission, environment urban development and housing. These frameworks are commissioned to ensure the unity and coherence of the police actions in the basin.

## **5.2. SET UP THE NATIONAL WATER COUNCIL**

The new orientation law related to water management, in its provisions related to water administration, establishes participation and consultation principles. So, according to its article 12 : 'It is created close to the minister in charge of water, *a national council for water. It has a consultative nature*'.

The decree n° 2002-539/PRES/PM/MAHRH dated November 27<sup>th</sup> 2002 determines CNE attributions and manages the composition, organization and functioning. The composition respects the balanced representation principle of the different stakeholders : users, local communities, State.

The aimed objective is to establish the consultation between the water sector actors as a concrete modality of the sector public and collective regulation at the national level.

Such a permanent, structured, productive consultation which involves all the actors differs from the usual approach which consisted for the State to simply eavesdrop the other actors of water sector.

CNE is therefore the established structure at the national level for a consulted water management, involving the State, the local communities, the private sector and the civil society in its various components. CNE is consulted on the national political tendencies on water, notably the action plan for the water resources integrated management, the SDAGE, the SAGE, intervention programmes of basin agencies which last several years, essential legislative and statutory texts in the domain of water or having an important effect on water as well on any other matter in the domain of water that will be submitted by the government or of which CNE will take hold.

## **5.3. BUILD NEW MANAGEMENT SPACES**

### **5.3.1. Define new spaces for water management as competence areas for basins management committees and basins agencies**

In accordance with the orientation law related to water management, water resources will be administrated per hydro-graphic basins and competence spaces of their management structures take into account the scientific, technical, administrative and socio-economic criteria.

The new management spaces are specific districts for water management, having management structures, planning tools and intervention means.

The setting up of basins management structures must progressively take place.

### **5.3.2. Role, nature and overall mission of hydro-graphic basins management structures**

According to article 18 of the orientation law related to water management : '*hydro-graphic basin is the suitable frame of water resources planning and management. Public actions coordination and consultation are in keeping with it in order to elaborate and implement in optimal conditions of rationality, the tendencies and decision taken in the domain of water*'.

Management structures to be instituted in basins, considering the provisions of the orientation law related to water management, must in their area of competence :

- Open the consulted management of water resources among the State, the local communities and users who will contribute to interventions financing they will make necessary or useful ;
- Express through Waters Development and Management (Master) Plans (SDAGE and SAGE) the national political tendencies of water) ;
- Elaborate, in application of SDAGE and SAGE, intervention programmes that last several years in order to meet the needs of waters uses, water quality preservation and restoration, aquatic ecosystems conservation, struggle against floods, development of knowledge on water resources and improvement of their management.

In this prospect basins management structures are composed of :

- a basin management committee ;
- a basin agency ;
- local committees of water.

#### *5.3.2.1. The basin management committee (CGB)*

The basin management committee is the consultation and decision organ with parity of representation as regards water management in the basin :

- It examines and approves projects of Waters Development and Management (Master) Plans (SDAGE and SAGE) as well as intervention programmes that last several years ;
- It examines and approves the propositions of the financial contribution rates of deduction and pollution ;
- It is consulted on the opportunity of all envisaged works and developments in the basin, on the disputes that could arise among the actors of the basin water, and more generally on all the questions relating to its competence.

The basin committee management is composed of members representing three colleges :

1. user's representatives ;
2. local communities representatives ;
3. State representatives.

The State, the local communities and users have the same number of representatives.

The composition, structures and the functioning of the basin management committee are specified by a statutory text.

#### *5.3.2.2. The basin agency*

The basin agency is the executive organ as regards water management. Considering the general mission of basins management structures, the basin agency is a public establishment endowed with legal entity and financial autonomy.

The composition, the domain of competence, the structures and the functioning of the basin Agency are specified by a statutory text. The basin Agency has a general mission of

technical and economical intervention, of the water resources monitoring and areas as that depend on it, of water users and their impact.

As such, it plays the following roles :

- SDAGE projects working out and the supervision of the working out of SAGE projects ;
- Coordination of SDAGE and SAGE implementation ;
- Economic incitation by the means of water users financial contributions and supports granted to public and private owners ;
- Technical advice (advice, expertise, communication, technical continuous training for the owners\_;
- Information of the basin water users on the data relative to waters, uses and natural environment ;
- Support and activities leading in all the commissions of the basin management committee ;
- Preparation of conciliation and resources granting elements ;
- Participation in the management of shared waters.

Basin agencies maintain among themselves multiform cooperation relations.

#### *5.3.2.3. Water Local committee (CLE)*

According to the acuteness of the problem related to the development and management of sub-basins, aquifer, rivers, urban agglomeration and works waters, it could be set up in conformity with SDAGE, water local committees (CLE).

Their mission is the working out of SAGE under the form notably management agreements for sub-basins, equipment, rivers contracts, agglomerations contracts, all this in consultation with basin agencies. Their composition will be balanced in comparison with the different stakeholders.

The composition, structures and functioning of water local committees are specified by a statutory text.

### **5.3.3. Intervention means of basins management structures**

#### *5.3.3.1. Management structures financial resources*

- **The financial contributions provided for by the orientation law related to water management**

Article 101 of the constitution sets the principle of prior authorization by the Parliament of any institution of tax. As far as water financing is concerned, this authorization is established by article 47 of the orientation law relative to water management which stipulates that : 'the use of water requires that everyone participates in the Nation effort to ensure the management'.

Those, who, by their activities make necessary or useful public or private interventions in order to preserve or restore the quality of water, to meet the needs corresponding to

the uses that are made or to ensure the conservation of aquatic ecosystems, bear the cost of these interventions or contribute to their financing’.

The law has therefore authorized the creation of a financial contribution and has appointed the persons and operations that can be subjected to it. The other aspects of its implementation (tax base, rates, etc.) still have to be determined by statutory route.

- **The other financing sources**

The other financial resources of basin agencies are made up of grants, aids, donation and legacy and any other resources authorized by the law.

#### *5.3.3.2. Financial resources allocation to basins agencies*

The main mission of agencies is to help technically and financially general interest operations at the water and environment service in the basin in order to ensure a sustainable management of water resources.

The collected resources by the agencies will be allocated to the functioning of agencies them selves, the financial support for the owner, the water knowledge and administration and to the State budget.

To this end, the Agency can give a direct or indirect financial support to the carrying out of all the works, the building or exploitation of all equipment undertaken by public or private owner and whose object is in the priority intervention programme of the basin.

#### *5.3.3.3. Agencies intervention planning*

The financial interventions of each agency is closely supervised by an intervention programme that lasts several years, validated by its administration body, and submitted to the approval of the basin management committee. This programme defines the whole actions and means the actors agree to implement during a given period to carry out the objectives that appear to have priority in the basin.

The intervention programme that lasts several years must be compatible with the important tendencies of Waters Development and Management Master Plan (SDAGE) ; this plan is carried out by each agency in collaboration with the State technical services and external technical supports.

SDAGE is a real planning tool for the development and management of waters within which each one (State, local communities, users) take on his role. It is a coherent, global and consulted answer to the water question in a given geographic space :

- coherent, because SDAGE is applied at the basin scale, from upstream to downstream, analyzing and processing waterways since their sources until the basin outlet ;
- global, because this plan will guide and organize into a hierarchy a great number of actions, projects and equipments on the considered period ;
- consulted at last, for it consists in giving floor to all the concerned partners (actors, consumers, users).

#### 5.3.3.4. *Fields of intervention*

Agencies domains of intervention are various and are composed among others of :

##### Resource development

- Land reservations for dam sites ;
- Water tables re-supplying ;
- Rivers upkeep and development ;
- Useful studies and research on the domain.

##### Uses development

- Land reservations for hydro-agricultural sites ;
- Production procedures to save and enhance resource value ;
- Support to the setting up of new professional organisations for water management ;
- Useful studies and research in the domain.

##### Struggle against pollution and risks linked to water

- Support to the carrying out of the sanitation works ;
- Creation of protection areas ;
- Struggle against inundations ;
- Useful studies and research in the domain.

#### **5.4. REINFORCE THE INTERVENTION CAPACITIES OF THE LOCAL COMMUNITIES, THE PRIVATE SECTOR AND THE CIVIL SOCIETY IN THE WATER AREA**

##### ***5.4.1. Roles and responsibilities of local communities***

According to the terms of law n° 041/98/AN concerning the organization of Burkina territorial administration, competence passed on to local communities and related to the domain of water are the following :

- participation to the protection of superficial and underground water resources and fishing resources ;
- sanitation ;
- struggle against unhealthiness, pollution and nuisances ;
- household refuse disposal and elimination ;
- view point on the installation of first and second categories of polluting industries in conformity with the Environment Code ;
- signing plans agreements or programmes agreements with the State or other legal entities for the carrying of economic development, social, cultural or scientific objectives ;
- sicknesses prevention measures, hygiene and healthiness measures ;
- the water quality control ;
- view point on water supply master plan ;

- participation in the production and/or distribution of drinkable water ;
- wells, drillings, fire hydrant, realization and management ;
- view point on supplying programmes of drinking water ;
- participation to waterways upkeep and conservation ;
- reservoirs and dams realization and upkeep.

TOD and PAGIRE implementation will lead to the rereading of State public establishments statutes which competence as regards water are transferred to administrative districts and local communities.

#### **5.4.2. Reinforce local communities capacities**

Local communities are required to play a major role in the management of resources in water on account of the possibility to transfer the public equipment authorized by law. They need in this case to be helped as well on the training plan as on the institutional, organizational technical and financial plans.

#### **5.4.3. Reinforce the intervention capacities of the private sector, and the civil society in the water area**

Nowadays, as in the past, investment and financing needs in water sector remain important and the capital return is poor.

**Therefore, the improvement of the sector economic, financial and social performances is on the agenda.** Such a requirement implies in the domain of water the progressive setting up of a water saving by improving investments impacts on the national economic tissue, reducing the costs, increasing the opportunities as regards job, productive activities and incomes.

The reinforcement of private sector and civil society intervention capacities in the domain of water requires notably the implementation of the following measures :

- To develop support actions for the improvement of the quality of provisions of services and private operators' capacities ;
- To support the emergence of services private operators ;
- To develop financing access tools for private operators ;
- To support the emergence of water users associations and nature protection associations.

### **5.5. DEVELOP AND REINFORCE THE HUMAN RESOURCES OF THE STATE PUBLIC ADMINISTRATION**

The question of human resources in an essential question because the future institutional framework whatever are to the relevance of the principles and quality of texts that will define it, will be only valid by the men and women who will lead it.

Now, in this domain the situation is more worrying for, without any significant staff recruitment, the State Administration in the domain of water, already confronted to a major crisis, will find itself at short term in **a situation comparable to that of the first years of independence where the State did not have the conception and technico-administrative training capacities for the achievement of its missions.**

Moreover, IWRM implementation will entail important changes : appearance of new management functions, shifting of existing functions at the central level towards other levels through devolution and decentralization.

All this will be expressed by the emergence of development needs of competence (engineers and technicians, lawyers, economists, communication and social sciences experts, ...) from the staff at all the levels.

All this context requires to elaborate and implement a realistic strategy of development and reinforcement of human resources.

#### **5.6. AROUSE POPULATIONS CONSCIOUSNESS, DEVELOP AND REINFORCE THEIR PARTICIPATION CAPACITIES**

The conscious and responsible participation of populations in the water resources sustainable management imposes to undertake information, consciousness raising and training actions for the reinforcement of their capacity.

#### **5.7. OUTLINE OF THE FUTURE INSTITUTIONAL FRAMEWORK OF THE WATER SECTOR**

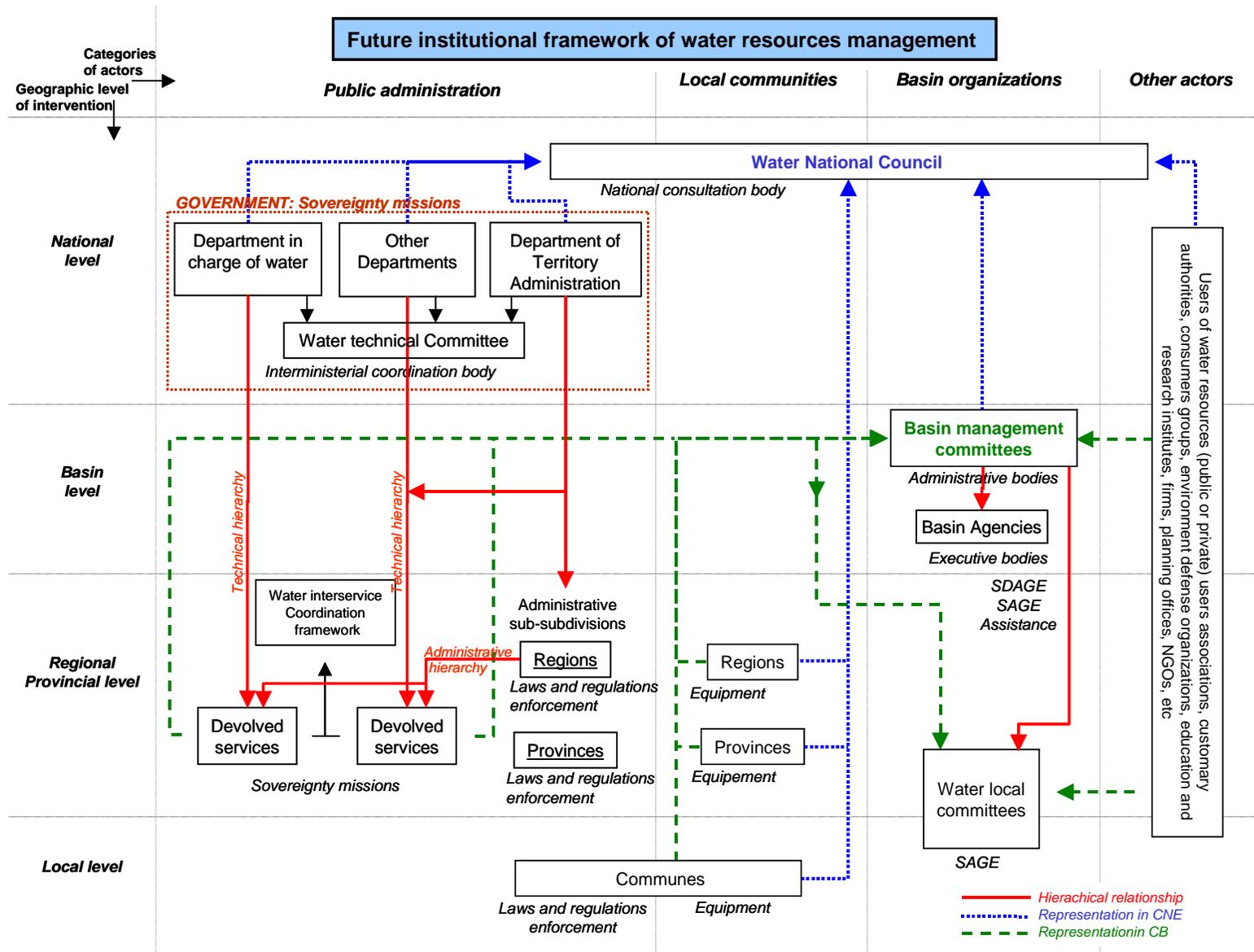
The plan on the following page present a overall view of the institutional framework of the water sector. This framework is developed at four geographical levels :

- national level,
- hydro-graphic basin level,
- regional and provincial level,
- local level.

Four categories of actors intervene there :

- public administration (central and devolved)
- local communities,
- basin organisms,
- other actors (users, private sector, NGO, etc.).

The plan shows the hierarchical relationships between administrative bodies and the representatives of other actors in the different management and consultative authorities.





## 6. OPERATIONAL ACTIONS TO IMPLEMENT THE ACTION PLAN

In the prospect of starting all the innovations and changes, specific actions have been provided for and constitute the reform framework of the water resources management in year 2015.

However, it is acknowledged that the appropriation of a new water management mode by the intervening parties is a long term process. Besides, as indicated in the strategies, the transition process to IWRM likes to be progressive.

For these two reasons (duration and progressiveness) the implementation of PAGIRE is structured into two phases :

1. A first phase of five years duration (2003-2008) whose content and budgets are already defined ;
2. A second consolidation phase of seven years (2009-2015) whose exact content will only be defined towards the end of the first phase, on the base of reviews and assessment.

The actions of the first phase are structured in fields of actions.

A field of actions, in the way we see it here, can designate what we act on (for instance human resources) or the nature of the actions themselves (for instance, emergency measures).

Each field of action permits so to define a set of specific actions helping to solve a given problematic of the transition towards IWRM and permitting to get coherent and additional outcomes.

Basing on assets and constraints identified in relation to water resources management and as regards with fixed objectives, strategies and orientations –eight (8) fields of actions have been selected in the frame of large consultations. They constitute the structure of PAGIRE :

Field of actions n<sup>b</sup> 1 : **Enabling environment**

Field of actions n<sup>b</sup> 2 : **Water information system**

Field of actions n<sup>b</sup> 3 : **Procedures**

Field of actions n<sup>b</sup> 4 : **Research-Development**

Field of actions n<sup>b</sup> 5 : **Human resources**

Field of actions n<sup>b</sup> 6 : **Information, education, sensitization, defence**

Field of actions n<sup>b</sup> 7 : **Institutional framework**

Field of actions n<sup>b</sup> 8 : **Emergency measures**

The actions provided for in the first phase of PAGIRE are subject of detailed actions files regrouped in a supporting technical document for PAGIRE implementation and entitled 'PAGIRE actions files'.

The actions of the second phase will be defined on the base of the reviews conclusions and the first phase evaluation. Under this condition they could include :

- the continuation, consolidation or reinforcement of some actions in the first phase ;
- if necessary, new actions whose necessity would appear during the first phase.

## **6.1. FIELD OF ACTIONS N<sup>B</sup> 1 : ENABLING ENVIRONMENT**

### **6.1.1. Field justification**

The application of IWRM principles and tools requires that the rights, duties and roles of all the intervening parties be defined clearly (State, local communities, users) in the action as a whole aiming at a better knowledge, exploitation, distribution of the resource and a better preservation of the ecosystems.

In this group the Government must essentially play and more and more a role of facilitation, regulation and control so that the favourable conditions be gathered for a reached by consensus and efficient implementation of IWRM. The Government has particularly for first responsibility to set up favourable conditions to the free practice of everyone's rights and duties, according to the rules of the game known and accepted by all.

The actions essential objective of this first field is therefore to set up, under the State impulsion but in agreement and synergy with all the intervening parties, a political, legislative, statutory and financial, etc., environment, favourable to a good application of the principles related to water resources integrated management.

Such a responsibility from the State cannot be isolated from the other responsibilities concerning institutional development (field of actions n<sup>b</sup> 7), actors training (field of actions n<sup>b</sup> 5) and citizens information (field of actions n<sup>b</sup> 6).

### **6.1.2. Expected results**

The results expected in this field are the following :

**Result 1.1. :** Laws, regulations, norms, financial measures to regulate the market of water, to incite or dissuade have been adopted ;

**Result 1.2. :** The water policy adopted in 1998 has been updated and completed.

### **6.1.3. Actions of the field**

Nine (9) actions have been defined : five actions corresponding to result 1.1 and four corresponding to result 1.2.

**Actions corresponding to result 1.1 :** laws, regulations, norms, financial measures to regulate the market of water, to incite or dissuade have been adopted.

Action 1.1.1. to write and make adopt enforcement texts of the orientation law related to water management.

Action 1.1.2. to draw up and update the Code of Water

Action 1.1.3. To apply the texts related to decentralization in the scope of water

Action 1.1.4. To set up an administrative, economic and fiscal environment favourable to the development of the private sector in the water sector

Action 1.1.5. To develop the normalization on drinking water purity

**Actions corresponding to result n<sup>b</sup> 1.2 :** the water policy adopted in 1998 has been , updated and completed in its different sub-sectors

Action 1.2.1. To write a document entitled 'Policy and strategies related to water resources management'

Action 1.2.2. To draw up the co-operation policy related to the shared waters

- Action 1.2.3. To introduce IWRM concepts and approaches in the policies of sectors in which water intervenes
- Action 1.2.4. To propose the future evolution of the responsibilities sharing in relation with IWRM between the State and its dismemberments, the local communities and the other development actors.

## **6.2. FIELD OF ACTIONS N<sup>B</sup> : WATER INFORMATION SYSTEM**

### **6.2.1. Field justification**

The knowledge and monitoring of water resources, uses, demands and risks related to water are indispensable basic elements to ensure a good water management. This function of knowledge and monitoring is developed in several stages which are the collection of basic data, their validation and stocking, their processing and the diffusion of information obtained on water situation.

To date only the quantitative monitoring is ensured and yet, not in a fully satisfactory manner. The water quality, the uses, demands, risks are not monitored or very less.

Thus, it has appeared fundamental to provide for a set of actions to reinforce the existing monitoring, to set up new monitoring systems and exploit the basic data for their exploitation.

### **6.2.2. Expected results**

The results expected in this scope are the following :

- Result 2.1.** The quantitative monitoring networks of water resources are reinforced according to the needs in information and available financial resources.
- Result 2.2.** The implementation of national networks to monitor the quality of waters, uses, demands and risks related to water has been defined ; a particular case of demands concerns demands in water of humid zones.
- Result 2.3.** Simplified exchange procedures between the various producers and users of basic data are set up (harmonization of basic data collected and their formats).
- Result 2.4.** The interpretation of data has been improved and synthesis documents on the situation of water resources in the country are regularly produced.

### **6.2.3. Actions of the field**

Eleven (11) actions are defined : two actions corresponding to result 2.1, four actions corresponding to result 2.2, one action corresponding to result 2.3 and four actions corresponding to result 2.4.

**Actions corresponding to result n<sup>b</sup> 2.1.** The quantitative monitoring networks of water resources are reinforced in conformity with the needs in information and the available financial resources.

- Action 2.1.1. To reinforce the quantitative monitoring of the ground water resources.
- Action 2.1.2. To reinforce the quantitative monitoring of underground water resources.

**Action corresponding to result n<sup>b</sup> 2.2.** The implementation of national networks to monitor the quality of waters, users, demands and risks related to water has been defined ; a particular case of demands concern the demands in water of humid zones.

Action 2.2.1. To reinforce the qualitative monitoring of water

Action 2.2.2. To reinforce the monitoring of work for the water resources mobilization and regulation

Action 2.2.3. To define and implement the monitoring of water demand and uses

Action 2.2.4. To define and implement the monitoring of water resources of humid zones

**Actions corresponding to result n<sup>b</sup> 2.3 :** Simplified exchange procedures between the various producers and users of basic data have been set up (harmonization of basic data collected and their formats).

Actions 2.3.1. To define optimal information to be collected on the resources, demand and users, harmonize their formats and develop the methods of data exchange between the concerned actors.

**Actions corresponding to result n<sup>b</sup> 2.4.** The interpretation of data has been improved and synthesis documents on the situation of water resources in the country are regularly produced.

Action 2.4.1. To define and set up a validation and conservation system for the data.

Action 2.4.2. To define and implement a system for the water resources evaluation.

Action 2.4.3. To define and implement an evaluation system of water demand and its uses.

Action 2.4.4. To define and implement a system for the evaluation an prevention of risks related to water.

### **6.3. FIELD OF ACTION N<sup>B</sup> 3 : PROCEDURES**

#### **6.3.1. *Justification of the field***

The procedures describe to the attention of agents of the institutional frame, how to apply the laws and regulations related to water. It concern a field which has very often been neglected till now with for consequence the non application of texts or a variable application from one administration to another one or from one point to another one in the territory.

Actions in this scope concern the most important procedures which will permit to guide the agents of the Water Administration in the enforcement of laws and regulations taken in the frame of the enabling environment.

The actions recommended are not exhaustive. Indeed the authorities are always entitled to take on their level of administrative responsibility, decisions, circulars, etc. which precise how to enforce such or such provision wanted by the legislator or the executive. This power hasn't been enough used by the Administration.

### **6.3.2. Expected results**

The results expected in this field of actions are the following :

- Result 3.1.** Practical terms and conditions to enforce the laws and regulations are defined concerning Installations, equipment, Works and Activities (IOTA) submitted to authorization or statement as well as the collection and allotment of financial contributions.
- Result 3.2.** The practical terms and conditions to enforce laws and regulations are defined concerning arbitration between the competitive uses.
- Result 3.3.** The practical terms and conditions to enforce laws and regulations are defined concerning procedures to update the policy and planning documents related to water.

### **6.3.3. Actions of the field**

Six (6) actions have been defined : one corresponding to result 3.1, one corresponding to result 3.2 and four corresponding to result 3.3.

**Actions corresponding to result n<sup>b</sup> 3.1.** The practical terms and conditions to enforce laws and regulations are defined concerning Installations, equipment, Works and Activities (IOTA) submitted to authorization or statement as well as the collection and allotment of financial contributions.

- Actions 3.1.1. To define and implement procedures for the enforcement of the law and its statutory texts
  - Part (a) : Authorization/statement procedures on IOTA
  - Part (b) : Procedures for the collection and allotment of financial contributions

**Actions corresponding to result n<sup>b</sup> 3.2.** The practical terms and conditions to enforce laws and regulations are defined concerning arbitration between competitive uses and the prevention and regulations of conflicts.

- Action 3.2.1. Define and implement procedures for the distribution of the resource, arbitration between competitive uses and the prevention and regulation of conflicts.

**Actions corresponding to result n<sup>b</sup> 3.3.** The practical terms and conditions for the laws and regulation enforcement concerning the procedures to monitor and update policy and planning documents in relation with water.

- Action 3.3.1. To set up a mechanism for the monitoring/evaluation and policies adaptation as well as strategies in relation with water.
- Action 3.3.2. To define and implement procedures for the monitoring/evaluation and updating of PAGIRE
- Action 3.3.3. To define procedures for the drawing up, monitoring/evaluation and updating of SDAGE and SAGE.
- Action 3.3.4. To define the procedures for drawing up, monitoring/evaluation and updating programmes that last several years related to the intervention of basins organizations.

## **6.4. FIELD OF ACTIONS N<sup>B</sup> 4 : RESEARCH/DEVELOPMENT**

### **6.4.1. Field justification**

Basic knowledge on the cycle and uses of water must be enriched to improve the exploitation of data collected in the frame of field n<sup>b</sup> 2 and more generally, knowledge on water resources in the country and its mobilization techniques must be enriched.

Some scientific and technical knowledge are presently judged insufficient to exploit better the data concerning the resource or to take relevant decisions. This field of actions corresponds therefore to a need of necessary additional knowledge in order to give the management framework all its efficiency.

It consists in collaboration with the concerned competent partners to focus studies and research efforts on them interesting directly the resource managers thanks to suitable expected results to make easy first the analyses and then the decision-making.

The actions recommended concerning studies and research limit themselves to this type of needs. They do not cover all the studies and research/development actions on water and its uses which will be performed in better appropriate framework than an action plan for the transition towards the water resources integrated management.

However, the actions recommended will contribute to better define these other actions among which some are also to be put in correspondence with those of the other fields of actions, particularly field n<sup>b</sup> 6 (information, education, sensitization, defence) et 7 (institutional framework).

### **6.4.2. Expected results**

The results expected in this field of actions are the following :

- Result 4.1.** (Quantitative and qualitative) evaluation of water resources has been approved, including the assessment of impacts related to natural various phenomena on the resource.
- Result 4.2.** Knowledge on the resources reconstitution and mobilization is improved.
- Result 4.3.** The evaluation of water demand has been improved thanks to a better knowledge of uses, needs, quality requirements and the users behaviour.

### **6.4.3. Actions of the field**

Thirteen (13) actions are defined : three correspond to result 4.1, six correspond to result 4.2 and four correspond to result 4.3.

**Actions corresponding to result n<sup>b</sup> 4.1.** The (quantitative and qualitative) evaluation of water resources has been improved, including the assessment of impacts related to natural various phenomena on the resource.

Action 4.1.1. To improve water resources evaluation methods

Part (a) : Ground water resources

Part (b) : Underground water resources

Action 4.1.2. To improve knowledge on the impacts of climatic changes on water resources.

Action 4.1.3. To improve knowledge on the relationship between water quality and the prevalence of hydrous diseases.

**Actions corresponding to result n<sup>b</sup> 4.2.** Knowledge on the reconstitution and mobilization of the resources is improved.

Action 4.2.1. To assess sizing methods of hydraulic equipment.

Action 4.2.2. To assess dams filling phenomena through sedimentation.

Action 4.2.3. To assess the efficiency of techniques related to under ground water collecting in base zone.

Action 4.2.4. To study the impact of high flow exploitation on the underground water resources in base zone.

Action 4.2.5. To assess the effectiveness of water tables retention/recharging techniques.

Action 4.2.6. To assess the efficiency, economic cost effectiveness and social benefit of the provoked rains.

**Actions corresponding to result n<sup>b</sup> 4.3.** The evaluation of water demand has been improved thanks to a better knowledge of uses, needs, quality requirements and the users behaviour.

Action 4.3.1. To improve evaluation methods of demand and uses.

Action 4.3.2. To conduct studies in order to adapt the norms of drinking waters purity.

Action 4.3.3. To carry out sociological, economic and legal studies to better know the practices related to water resources management and the users behaviours.

Action 4.3.4. To improve knowledge on the water needs of the humid zones.

## **6.5. FIELD OF ACTIONS N<sup>B</sup> 5 : HUMAN RESOURCES**

### **6.5.1. Field justification**

The actions of this field aim at lessening impacts of shortcomings underlined by 'the inventory of fixtures related to water resources in Burkina Faso and their management framework' : insufficient and ageing employees, lack of recruitment, employees to be re-deployed or to be trained to IWRM new functions.

The emphasis is put on the necessary training so that the employees of services directly involved in IWRM can assume fully their new missions. Taking into account competence transfer in the frame of decentralization and taking into consideration the generalization of participatory instances, the emphasis is put on the development of human resources for the corresponding bodies.

All these actions in this field constitute the training Plan.

### **6.5.2. Expected results**

The results expected in this field of actions are the following :

- Result 5.1.** The management of the water administration human resources has been reinforced.
- Result 5.2.** The capacities of employees from the administrative structures responsible for the implementation of the State sovereignty missions in relation with water have been reinforced.
- Result 5.3.** The capacities of the employees from the technical administrative structures responsible for the implementation of the new functions related to water management have been reinforced, concerning mainly the technical management (knowledge, monitoring, protection) of water resources, uses and milieu which depend on it through the implementation of water information system, police of water, etc.
- Result 5.4.** The capacities of the officials from the technical administrative structures responsible for the implementation of the new functions related to water management have been reinforced, concerning mainly water administrative management (planning, policy, regulation, monitoring) and support-advice to local communities.
- Result 5.5.** The capacities of actors from the water public sector involved in IWRM (other than those of the department in charge of water) have been reinforced.
- Result 5.6.** The capacities of actors from the private sector have been, reinforced as far as IWRM is concerned through the training of a representative sample of technical managerial staff (firms and planning offices leaders, design and execution agents, etc.)

### **6.5.3. Actions of the field**

Twenty (20) actions have been defined : one corresponding to result 5.1, six corresponding to result 5.2, five corresponding to result 5.3., four corresponding to result 5.4, three corresponding to result 5.5 and one corresponding to result 5.6.

**Actions corresponding to result n<sup>b</sup> 5.1.** The human resources management has been reinforced.

- Action 5.1.1. Methodological support to the Direction of the Human Resources of the Department in charge of water
- Part (a) : Formulation of a management policy for human resources
- Part (b) : Steering and monitoring/evaluation of the training Plan
- Action 5.1.2 Initial professional training of competence as regards water for the State, the territorial communities and the private sector
- Action 5.1.3 Support to the redeployment of the water Administration staff : skilful training of the agents to adapt them to their new positions

**Actions corresponding to result n<sup>b</sup> 5.2.** The capacities of employees from the administrative structures responsible for the implementation of the State sovereignty missions in relation with water have been reinforced.

- Action 5.2.1. Period of probation training in working out and monitoring of the water supply policies.
- Action 5.2.2. Period of probation training in statutory and institutional systems as regards water supply.
- Action 5.2.3. Period of probation training in technique, equipment and strategy of communication to the benefit of the water supply sector and IWRM
- Action 5.2.4. Period of probation training in international co-operation and policy as regards water supply

**Actions corresponding to result n<sup>b</sup> 5.3.** The capacities of employees from technical administrative structures responsible for the implementation of new functions related to water management have been reinforced.

- Action 5.3.1. Training to IWRM of all the employees from the Department in charge of water.
- Action 5.3.2. Training in (qualitative and quantitative) monitoring/evaluation of the resource, in monitoring of demand, uses and needs of ecosystems.
- Action 5.3.3. Training of agents in charge of the Police of water.
- Action 5.3.4. Training in planning, development plans and water management.
- Action 5.3.5. Training in impact monitoring/evaluation.

**Actions corresponding to result n<sup>b</sup> 5.4.** The capacity of the officials from technical administrative structures responsible for the implementation of new functions in relation with water management and support-advice to the other actors have been reinforced.

- Action 5.4.1. Training in work organization and staff management.
- Action 5.4.2. Training in public management.
- Action 5.4.3. Training in administrative law.
- Action 5.4.4. Training in support-advice approaches applied to the water sector.

**Actions corresponding to result n<sup>b</sup> 5.5.** The capacity of actors from the water public sector implied in IWRM (other than those of the Department in charge of water) have been reinforced.

- Action 5.5.1. Training to IWRM of the managerial staff of A category from the other ministerial departments concerned by the water resources management
- Action 5.5.2. Training to IWRM of agents from the basins organizations.
- Action 5.5.3. Training to IWRM of agents from the local communities.
  - Part (a) : Technical agents from communes
  - Part (b) : Technical agents from provinces
  - Part (c) : Technical agents from regions

**Actions corresponding to result n<sup>b</sup> 5.6.** The capacity of actors from the private sector have been reinforced in relation with IWRM through the training of a representative sample of technical staff (firms and planning offices leaders, design and execution agents, etc.).

Action 5.6.1. Training to IWRM of agents from the private sector.

## **6.6. FIELD OF ACTION N<sup>B</sup> 6 : INFORMATION, EDUCATION, SENSITIZATION, DEFENSE**

### **6.6.1. Field justification**

The success of IWRM relies on the adhesion and participation of all the actors and the sustainability of its results relies on its appropriation by these same actors. It is the meaning of the actions of this field which aim at the largest information and participation of the civil society and the decision makers.

### **6.6.2. Expected results**

The results expected in this field of actions are the following :

- Result 6.1.** The population has been well informed on the content of the orientation law related to water management and its implications in the everyday life, on the water resources issues in the country and the institutional reform in progress ;
- Result 6.2.** The population and the professional have been sensitized to water saving and techniques to mobilize and reconstitute the resource ;
- Result 6.3.** The actors and decision makers concerned by water play efficiently their role in the management new framework thanks to a large information on IWRM and the reform in progress and thanks to an easy access to water data ;
- Result 6.4.** IWRM has been effectively taken into account in the sectorial policies of the other departments thanks to a better comprehension of its principles and methods.

### **6.6.3. Actions of the field**

Twelve (12) actions have been defined : three corresponding to result 6.1, three corresponding to result 6.2, four corresponding to result 6.3 and two corresponding to result 6.4.

**Actions corresponding to result n<sup>b</sup> 6.1.** The population has been well informed on the content of the orientation law related to water management and its implications in the everyday life, on the water resources issues in the country and on the institutional reform in progress.

Action 6.1.1. To inform users on IWRM.

Action 6.1.2. To introduce IWRM notions in the education and basic training programmes.

Action 6.1.3. To inform opinion leaders on IWRM principles and tools.

**Actions corresponding to result n<sup>b</sup> 6.2.** The population and the professionals have been sensitized to water savings and techniques of the resource mobilization and reconstitution.

Action 6.2.1. To promote water savings.

Action 6.2.2. To promote in base zone, the implementation of underground waters collecting techniques likely to improve the flows.

Action 6.2.3. To promote the implementation of techniques to reconstitute the resource.

**Actions corresponding to result n<sup>b</sup> 6.3.** The actors and decision-makers concerned by water play effectively their role in the new management framework thanks to a large information on IWRM and the reform in progress, and thanks to an easy access to data on water.

Action 6.3.1. To inform the professionals and decision-makers on the reform in progress concerning water sector

Action 6.3.2. To introduce IWRM notions in the specialized training programmes

Action 6.3.3. To promote the participation of professionals and decision-makers in the water resources management.

Action 6.3.4. To promote the Water Information System (SIE) and the Water Information Center (CIE) with professionals and decision-makers.

**Actions corresponding to result n<sup>b</sup> 6.4.** IWRM has been effectively taken into account in the sectorial policies of the other departments, thanks to a better comprehension of its principles and methods.

Action 6.4.1. To conceive and implement defense actions for the promotion of IWRM with political decision-makers and the development partners.

Action 6.3.4. To promote the integration of IWRM principles in the other sectors using water or concerned by water.

## **6.7. FIELD OF ACTION N<sup>B</sup> 7 : INSTITUTIONAL FRAMEWORK**

### **6.7.1. Field justification**

The document entitled 'Policy and strategy related to water' adopted in July 1998, the adoption on February 8<sup>th</sup> 2001 of the 'Orientation law related to water management' and the actions performed since 3 years by IWRM programme illustrate the will shown off by the State to set up an institutional framework adapted to water resources integrated management.

Since the institutions constitute the essential tool to implement policy, the institutional reform becomes a requirement in order to set up water administration in conformity with the orientation law related to water management and respectful of the basic rules and principles of a management which guarantees equity between the users, the resource sustainability and the ecosystems balance.

### **6.7.2. Expected results**

The results expected in this field are the following :

- Result 7.1.** The water new administration (central and devolved) has been set up with the capacity : (i) to ensure the drawing and monitoring of an adapted policy and regulation ; (ii) to ensure the functions of the police of water ; (iii) to harmonize and co-ordinate the public services actions in the water sector ; (iv) to develop on the national level a water information system ; (v) to develop and monitor sub-regional and international co-operation in relation with water ; (vi) to bring necessary support-advice to the other actors.
- Result 7.2.** The Water National Council (CNE) created through decree n<sup>b</sup> 2002-539/PRES/PM/MAHRH of November 27<sup>th</sup> 2002 has been set up and is operational as a consultation framework (on the national important issues related to water sector) between the State, the local communities and the other users.
- Result 7.3.** Basins organizations have been created and are operational. They have the capacity to manage water in their areas of competence and ensure the regulation, collection and allotment of financial contributions on the base of the 'deducter-payer' and 'polluter-payer' principles.
- Result 7.4.** Local communities have the capacity to ensure their new assignments in relation with water management, resulting from the decentralization policy

### **6.7.3. Actions of the field**

The actions in this field are closely linked to those of the Field of actions n<sup>b</sup> 1 entitled 'Enabling environment'..

Eight actions have been defined : five corresponding to result 7.1, one corresponding to result 7.2, one corresponding to result 7.3 and one corresponding to result 7.4.

**Actions corresponding to result n<sup>b</sup> 7.1.** The water new administration (central and devolved) has been set up and is operational.

Action 7.1.1. To restructure water central administration :

- Part (a) : To set up and make operational a specific mission responsible for the co-ordination of PAGIRE implementation and monitoring/evaluation.
- Part (b) : To re-organise central services in charge of water
- Part (c) : To set up a specific structure in charge of the drawing up, the implementation and the monitoring/evaluation of water policy.
- Part (d) : To set up a specific structure in charge of water legislation and regulation.
- Part (e) : To set up a specific structure in charge of the organisation and monitoring of the sub-regional and international co-operation related to water
- Part (f) : To set up a specific structure in charge of the organisation and the management of a central system for water information and water information centre.

- Action 7.1.2. To restructure the water devolved administration :
- Part (a) : To re-organize the devolved services in charge of water.
  - Part (b) : To set up on the level of each region a structure responsible for the organization and the management of water information system.
- Action 7.1.3. To organize the police of water
- Action 7.1.4. To make operational the co-ordinations of the State actions in relation with water resources :
- Part (a) : on the central level (CTE)
  - Part (b) : on the regional level (CRAT)
  - Part (c) : on the provincial level (CPAT)
- Action 7.1.5. To create a thematic committee for water research programmes.

**Actions corresponding to result n<sup>b</sup> 7.2.** The Water National Council (CNE) has been set up and is operational.

- Action 7.2.1. To set up the water National Council (CNE) and support the starting of its activities.

**Actions corresponding to result n<sup>b</sup> 7.3.** Basins organizations have been created and are functional.

- Action 7.3.1. To set up basins organizations and support the starting of their activities :
- Part (a) : Basins management committees
  - Part (b) : Basins agencies
  - Part (c) : Water management local committees

**Actions corresponding to result n<sup>b</sup> 7.4.** Local communities have the capacity to assume new assignments related to water management resulting from decentralization..

- Action 7.4.1. To support local communities in the setting up of competent services in relation with water resources :
- Part (a) : on the communal level (50 communes)
  - Part (b) : on the provincial level (45 provinces)
  - Part (c) : on the regional level (13 regions)

## **6.8. FIELD OF ACTIONS N<sup>B</sup> 8 : EMERGENCY MEASURES**

### **6.8.1. Field justification**

The inventory of fixtures has identified a number of situations which are particularly worrying for the water resources or the humid zones environment. It concerns situations having already a perceptible unfavourable impact on environment, but especially on the socio-

economic activities of the populations : deficiency of underground water resources in several secondary centres in base zone because of the water table excessive reduction, waterway damage, sedimentation in water plans, proliferation of aquatic plants.

The resolution or lessening of these issues imposes urgent and targeted actions.

### **6.8.2. Expected results**

The results expected in this field of actions are the following :

- Result 8.1.** Alternative ground water resources have been found to supply in drinking water the secondary centres which are experiencing a critical situation of their underground waters.
- Result 8.2.** The most fragile aquatic ecosystems have been protected ;
- Result 8.3.** The banks of the most threatened waterways have been protected and restored;
- Result 8.4.** The water plans threatened by the proliferation of aquatic plans have been restored ;
- Result 8.5.** The silting up phenomenon has been reduced on the most threatened water plans.

### **6.8.3. Actions of the field**

Five (5) actions have been defined, each of them corresponding to one of the result below.

- Action 8.1.1. Alternative ground water resources are searched for to supply in drinking water secondary centres experiencing a critical situation of their underground waters.
- Action 8.2.1. To protect fragile aquatic ecosystems. 7 sites have been selected : Guingette, Beli, Bam, Sourou Valley, Tengrela, Oursi and Yomboli.
- Action 8.3.1. To implement protection measures for Nakanbé and Mouhoun rivers banks.
- Action 8.4.1. To implement fighting measures against the silting up of lakes and dams (5 sites, among which firstly Bam Lake).
- Action 8.5.1. To implement an integrated struggle against invading aquatic plants (VAE) on the most affected milieu and beyond, all the territory.

## 7. THE ACTION PLAN COST AND STRATEGY

As indicated in chapter 6, PAGIRE has been structured in two phases :

1. A first phase of a five years duration (2003-2008) whose content and budget are already defined.
2. A second consolidation phase of seven years (2009-2015), whose exact content will only be defined towards the end of the first phase on the base of reviews and evaluations.

Taking into account this division into phases, only the actions of the first phase have been assessed here. These actions of the first phase are subject of a detailed description in a distinct document entitled : 'PAGIRE actions files'.

### 7.1. OVERALL COST OF PAGIRE FIRST PHASE

The cost of PAGIRE first phase is estimated at 13,671 billions CFAF. The following tables show the breakdown of the total cost per field of action and for each field the budget to be provided for each action.

#### 7.1.1. Breakdown of PAGIRE total cost per field of action

N <sup>b</sup>	Field	Budget (CFAF)
1	Enabling environment	365,000,000
2	Water resources information system and their uses	1,255,000,000
3	Management procedures	150,000,000
4	Research-Development	945,000,000
5	Human resources	4,042,500,000
6	Information, communication, sensitization, defense	450,000,000
7	Institutional framework	4,514,000,000
8	Emergency measures	1,950,000,000
	<b>Global budget allocation</b>	<b>13,671,500,000</b>

### 7.1.2. Cost per action

Note : the following costs have been calculated for each action in a standardised method. Then that cost has been rounded off in order to give the budget which appears in this document. The detailed files for actions are subject of a separate volume entitled : 'PAGIRE Actions files'.

<b>N<sup>os</sup></b>	<b>Actions in field n° 1 : Enabling environment</b>	<b>Budget (CFAF)</b>
1.1.1	To write and make adopt enforcement texts of the orientation law related to water management.	130,000,000
1.1.2	To draw up and update the Code of Water	50,000,000
1.1.3	To apply the texts related to decentralization in the scope of water	30,000,000
1.1.4	To set up an administrative, economic and fiscal environment favourable to the development of the private sector in the water sector	20,000,000
1.1.5	To develop the normalization on drinking water purity	25,000,000
1.2.1	To write a document entitled 'Policy and strategies related to water resources management'	25,000,000
1.2.2	To draw up the co-operation policy related to the shared waters	20,000,000
1.2.3	To introduce IWRM concepts and approaches in the policies of sectors in which water intervenes	20,000,000
1.2.4	To propose the future evolution of the responsibilities sharing in relation with IWRM between the State and its dismemberments, the local communities and the other development actors	45,000,000
	<b>Field n<sup>b</sup> 1 Sub-total</b>	<b>365,000,000</b>

<b>N<sup>os</sup></b>	<b>Actions in field n° 2 : Information system about water</b>	<b>Budget (CFAF)</b>
2.1.1	To reinforce the quantitative monitoring of the ground water resources	240,000,000
2.1.2	To reinforce the quantitative monitoring of underground water resources.	430,000,000
2.2.1	To reinforce the qualitative monitoring of water	150,000,000
2.2.2	To reinforce the monitoring of work for the water resources mobilization and regulation	55,000,000
2.2.3	To define and implement the monitoring of water demand and uses	20,000,000
2.2.4	To define and implement the monitoring of water resources of humid zones	100,000,000
2.3.1	To define optimal information to be collected on the resources, demand and users, harmonize their formats and develop the methods of data exchange between the concerned actors	25,000,000
2.4.1	To define and set up a validation and conservation system for the data	75,000,000
2.4.2	To define and implement a system for the water resources evaluation	55,000,000
2.4.3	To define and implement an evaluation system of water demand and its uses.	40,000,000
2.4.4	To define and implement a system for the evaluation an prevention of risks related to water	65,000,000
	<b>Field n<sup>b</sup> 2 Sub-total</b>	<b>1,255,000,000</b>

<b>N<sup>os</sup></b>	<b>Actions in field n° 3 : Procedures</b>	<b>Budget (CFAF)</b>
3.1.1	To define and implement procedures for the enforcement of the law and its statutory texts Part (a) : Authorization/statement procedures on IOTA Part (b) : Procedures for the collection and allotment of financial contributions	20,000,000 15,000,000
3.2.1	To define and implement procedures for the distribution of the resource, arbitration between competitive uses and the prevention and regulation of conflicts.	30,000,000
3.3.1	To set up a mechanism for the monitoring/evaluation and policies adaptation as well as strategies in relation with water.	20,000,000
3.3.2	To define and implement procedures for the monitoring/evaluation and updating of PAGIRE	25,000,000
3.3.3	To define procedures for the drawing up, monitoring/evaluation and updating of SDAGE and SAGE	20,000,000
3.3.4	To define the procedures for drawing up, monitoring/evaluation and updating programmes that last several years related to the intervention of basins organizations.	20,000,000
	<b>Field n° 3 Sub-total</b>	<b>150,000,000</b>

<b>N<sup>os</sup></b>	<b>Actions in field n° 4 : Research/development</b>	<b>Budget (CFAF)</b>
4.1.1	Action 4.1.1. To improve water resources evaluation methods Part (a) : Ground water resources Part (b) : Underground water resources	25,000,000 25,000,000
4.1.2	Action 4.1.2. To improve knowledge on the impacts of climatic changes on water resources.	80,000,000
4.1.3	To improve knowledge on the relationship between water quality and the prevalence of hydrous diseases.	85,000,000
4.2.1	To assess sizing methods of hydraulic equipment	100,000,000
4.2.2	To assess dams filling phenomena through sedimentation	85,000,000
4.2.3	To assess the efficiency of techniques related to under ground water collecting in base zone.	100,000,000
4.2.4	To study the impact of high flow exploitation on the underground water resources in base zone	100,000,000
4.2.5	To assess the effectiveness of water tables retention/recharging techniques.	30,000,000
4.2.6	To assess the efficiency, economic cost effectiveness and social benefit of the provoked rains.	60,000,000
4.3.1	To improve evaluation methods of demand and uses	50,000,000
4.3.2	To conduct studies in order to adapt the norms of drinking waters purity.	85,000,000
4.3.3.	To carry out sociological, economic and legal studies to better know the practices related to water resources management and the users behaviours.	50,000,000
4.3.4.	To improve knowledge on the water needs of the humid zones.	70,000,000
	<b>Field n° 4 Sub-total</b>	<b>945,000,000</b>

<b>N<sup>os</sup></b>	<b>Actions in field n° 5 : Human resources</b>	<b>Budget (CFAF)</b>
5.1.1	Methodological support to the Direction of the Human Resources of the Department in charge of water Formulation of a management policy for human resources Part (b) : Steering and monitoring/evaluation of the training Plan	15,000,000 30,000,000
5.1.2	Initial professional training of competence as regards water for the State, the local communities and the private sector	2,980,000,000
5.1.3	Support to the redeployment of water Administration staff : skilful training of agents to adapt them to their new positions	115,000,000
5.2.1	Period of probation training in the working out and monitoring of water supply policies	25,000,000
5.2.2	Period of probation training in statutory and institutional systems as regards water supply	25,000,000
5.2.3	Period of probation training in techniques, equipment and strategies of communication to the benefit of the water supply sector and IWRM	20,000,000
5.2.4	Period of training in international policy and co-operation as regards water supply	20,000,000
5.3.1	Training to IWRM of all the employees from the Department in charge of water	200,000,000
5.3.2	Training in (qualitative and quantitative) monitoring/evaluation of the resource, in monitoring of demand, uses and needs of ecosystems	60,000,000
5.3.3	Training of agents in charge of the Police of water	65,000,000
5.3.4	Training in planning, development plans and water management	35,000,000
5.3.5	Training in impact monitoring/evaluation	52,500,000
5.4.1	Training in work organization and staff management	30,000,000
5.4.2	Training in public management	30,000,000
5.4.3	Training in administrative law	30,000,000
5.4.4	Training in support-advice approaches applied to the water sector	40,000,000
5.5.1	Training to IWRM of the managerial staff of A category from the other ministerial departments concerned by the water resources management	150,000,000
5.5.2	Training to IWRM of agents from the basins organizations	30,000,000
5.5.3	IWRM of agents from the local communities. Part (a) : Technical agents from communes Part (b) : Technical agents from provinces Part (c) : Technical agents from regions	25,000,000 25,000,000 15,000,000
5.6.1	Training to IWRM of agents from the private sector	25,000,000
	<b>Field n° 5 Sub-total</b>	<b>4,042,000,000</b>

<b>N<sup>os</sup></b>	<b>Actions in field n° 6 : Information – Education – Sensitization - Plea</b>	<b>Budget (CFAF)</b>
6.1.1	To inform users on IWRM	30,000,000
6.1.2	To introduce IWRM notions in the education and basic training programmes	70,000,000
6.1.3	To inform opinion leaders on IWRM principles and tools	50,000,000
6.2.1	To promote water savings	25,000,000
6.2.2	To promote in base zone, the implementation of underground waters collecting techniques likely to improve the flows	100,000,000
6.2.3	To promote the implementation of techniques to reconstitute the resource	55,000,000
6.3.1	To inform the professionals and decision-makers on the reform in progress concerning water sector	20,000,000
6.3.2	To introduce IWRM notions in the specialized training programmes	30,000,000
6.3.3	To promote the participation of professionals and decision-makers in the water resources management	20,000,000
6.3.4	To promote the Water Information System (SIE) and the Water Information Centre (CIE) with professionals and decision-makers	10,000,000
6.4.1	To conceive and implement defence actions for the promotion of IWRM with political decision-makers and the development partners	20,000,000
6.4.2.	To promote the integration of IWRM principles in the other sectors using water or concerned by water	20,000,000

	<b>Field n<sup>b</sup> 6 Sub-total</b>	<b>450,000,000</b>
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<b>N<sup>os</sup></b>	<b>Actions in field n° 7 : Institutional Frame</b>	<b>Budget (CFAF)</b>
7.1.1	Action 7.1.1. To restructure water central administration : Part (a) : To set up and make operational a specific mission responsible for the co-ordination of PAGIRE implementation and monitoring/evaluation. Part (b) : To reorganize central services in charge of water Part (c) : To set up a specific structure in charge of the drawing up, the implementation and the monitoring/evaluation of water policy. Part (d) : To set up a specific structure in charge of water legislation and regulation. Part (e) : To set up a specific structure in charge of the organization and monitoring of the sub-regional and international cooperation related to water Part (f) : To set up a specific structure in charge of the organization and the management of a central system for water information and water information center.	400,000,000 200,000,000 15,000,000 15,000,000 20,000,000 20,000,000
7.1.2	To restructure the water devolved administration : Part (a) : To reorganize the devolved services in charge of water. Part (b) : To set up on the level of each region a structure responsible for the organization and the management of water information system.	320,000,000 80,000,000
7.1.3	To organize the police of water	100,000,000
7.1.4	To make operational the co-ordinations of the State actions in relation with water resources : Part (a) : on the central level (CTE) Part (b) : on the regional level (CRAT) Part (c) : on the provincial level (CPAT)	20,000,000 100,000,000 450,000,000
7.1.5	To create a thematic committee for water research programmes	10,000,000
7.2.1	To set up the water National Council (CNE) and support the starting of its activities	110,000
7.3.1	To set up basins organizations and support the starting of their activities : Part (a) : Basins management committees Part (b) : Basins agencies Part (c) : Water management local committees	100,000,000 100,000,000 100,000,000
7.4.1	To support local communities in the setting up of competent services in relation with water resources : Part (a) : on the communal level (50 communes) Part (b) : on the provincial level (45 provinces) Part (c) : on the regional level (13 regions)	1,078,000,000 990,000,000 286,000,000
	<b>Field n<sup>b</sup> 7 Sub-total</b>	<b>4,514,000,000</b>

<b>N<sup>os</sup></b>	<b>Field actions n° 8 : urgent measures</b>	<b>Budget (CFAF)</b>
8.1.1	Alternative ground water resources are searched for to supply in drinking water the secondary centres experiencing a critical situation of their underground waters.	500,000,000
8.2.1	To protect fragile aquatic ecosystems. 7 sites have been selected : Guingette, Beli, Bam, Sourou Valley, Tengrela, Oursi and Yomboli.	490,000,000
8.3.1	To implement protection measures for Nakanbé and Mouhoun rivers banks	310,000,000
8.4.1	To implement fighting measures against the silting up of lakes and dams (5 sites, among which firstly Bam Lake).	350,000,000
8.5.1	To implement an integrated struggle against invading aquatic plants (VAE) on the most affected milieu and beyond, all the territory.	300,000,000
	<b>Field n<sup>b</sup> 5 Sub-total</b>	<b>1,950,000,000</b>

## **7.2. STRATEGIES FOR PAGIRE FUNDING**

The strategies for 'PAGIRE' funding are based on the three directions below :

1. Mobilize national resources ;
2. Make structuring programs and significant investment programs in the water sector contribute, in order to support the action plan execution ;
3. Mobilize external aid for 'PAGIRE' funding, through organization of consultations with partners to development.

## 8. TERMS AND CONDITIONS TO IMPLEMENT THE ACTION PLAN

### 8.1. STEERING OF PAGIRE IMPLEMENTATION

PAGIRE implementation will constitute for the ministry in charge of water, the permanent base to build in the future, in a concrete way water resources sustainable management in the country. It is therefore essential to mobilize for appropriate means its steering and its monitoring. For that, a steering Committee with a Permanent Secretariat linked to the Cabinet of the Minister in charge of water will be created within the department responsible for water and under the Minister's direct supervision.

The steering Committee and its Permanent Secretariat composition, organization and running will be specified by a statutory text.

That option shows, on the one hand, total commitment and involvement of the political authority supervision in PAGIRE implementation and, on the other hand, it allows to involve all the department structures to the same level of liabilities.

As far as effective execution is concerned, 'PAGIRE' being structured in complementary action areas and with the concern to involve all actors of the water sector, the execution of identified actions will be given to third parties (Central and devolved public water Offices, local communities, NGOs, private sector, etc.), the steering structure as its name indicates, will assure harmonious co-ordination and steering actions through its Permanent Secretariat.

### 8.2. DIVISION INTO PHASES OF PAGIRE IMPLEMENTATION IN THE YEAR 2015

PAGIRE constitutes an indissociable entity which cannot be cut up in independent execution sections ones from the others. Given the complexity, duration, progress and important cost of the plan, it has been agreed to distinguish two phases in the execution :

- A first phase for setting up base and fixation capacities ;
- A second phase for consolidation and development

#### 8.2.1. Phase I (2003-2008)

It principally consists in :

- setting up 'CNE' ;
- setting up 'PAGIRE' steering Committee and its Permanent secretariat ;
- setting up managerial staffs for inter-ministerial and offices co-ordination ;
- adoption of structuring decrees such as those related to competent spaces for basins management structures, to 'SDAGE' and 'SAGE', etc. ;
- implementation of human resources development plan ;
- implementation of sensitization and information actions towards different defined target groups ;
- setting up Water Information System ('SIE') ;
- setting up basin Committees management and basin Agencies ;
- seek setting up local water management Committees in sensitive areas ;
- reinforcement of operation capacities actions of local communities in the water area, of the private sector and the civil society ;
- adopting sub-sectorial strategies related to (i) struggle against pollution and floods (ii) 'AEPA' (iii) agricultural hydraulic and small irrigation, etc. ;
- implementing international co-operation as regards shared waters ;
- setting up public water management (in central and devolved offices of the State) (including water regulations, administrative proceedings, etc.) ;
- sensitization actions for actors to 'IWRM' principles and tools ;

- emergency measures.

### **8.2.2. Phase II (2008-2015)**

Without prejudice of the phase results, the second phase should principally consists of :

- extension actions of the first phase actions ;
- consolidation action of some gained results of the first phase ;
- reinforcement actions or widening of some actions which have been proved to be inadequate ;
- new actions appeared to be necessary during the first phase.

Except contrary decision (creation of new areas or modification of their outlines), the second phase actions should be registered in the eight field of actions identified by all the actors of the water sector in the country.

### **8.3. PAGIRE MONITORING – EVALUATION**

That means to implement a critical follow up approach and readjust/reorientation in the progression of an action plan implementation which complexity is obvious.

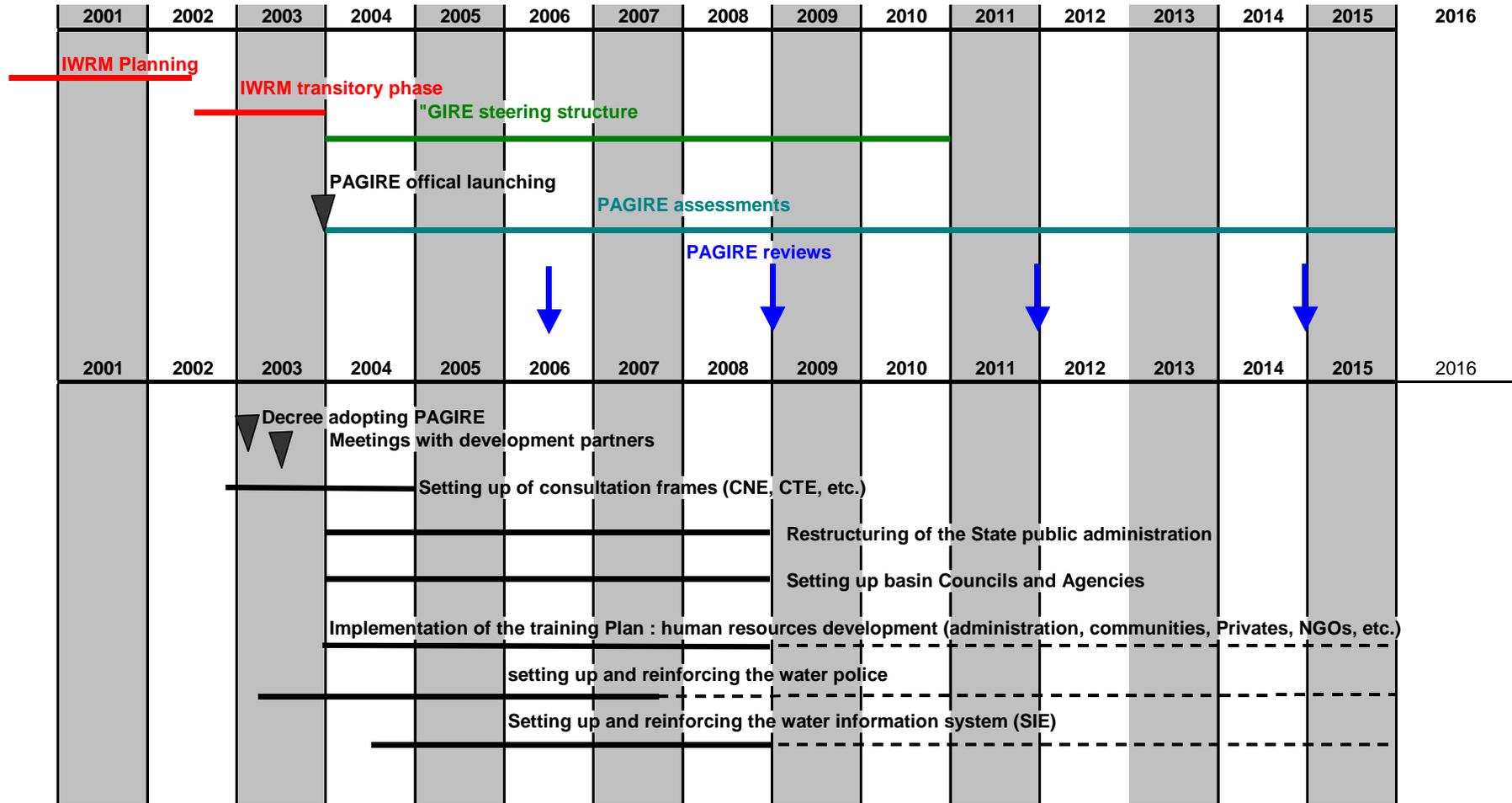
For that, PAGIRE reviews have been provided for every three years as well as, an evaluation at the end of the first phase in 2008 and a final evaluation in 2015.

### **8.4. RISK FACTORS**

As far as the Plan execution is concerned four risk factors have been identified :

1. The first risk factor is from political side : the action plan implementation success will principally rely on the government will and resolution to bring it to the end ;
2. The second risk factor is related to the capacity of the public water managerial staffs in appropriating the action plan and their commitment to implement it ;
3. The third risk factor is related to the Plan appropriation by the water users and the local communities : (i) getting national consensus about institutional aspects, (ii) actors' interest in the plan implementation and (iii) their resolution to appropriate and to play the roles that will be attributed to them in the new management framework ;
4. The fourth risk factor is related to the partners to development availability to support the action plan implementation.

## 8.5. PAGIRE IMPLEMENTATION PLANNER





## 9. CONCLUSION

The Action Plan for Integrated Water Resources Management ('PAGIRE') appears undeniably to be a huge building site of institutional innovations which specific actions structure for the thirteen (13) coming years an in-depth reform planner related to the water resources management framework in the country.

As it is known, institutional innovations are as much a source of development as technical and technological ones. Under these circumstances, it is hoped that this approach will provide to the country the means to tackle in a sustainable way the challenges related to drinking water and sanitation in the different urban centres and rural communities, water economic valorization, the country self-funding capacity building and knowledge building, the management and protection of water resources and milieus which depend on them.

That means at last, for the burkinabè populations, to show, like the other nations and populations that, more than the natural wealth they have, the burkinabè nation has got its populations' spirit capable of liberating energies permitting to build their own political, economical and social modernity in carrying out necessary changes.