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Mali

Public Expenditures Review

Rural Water and Sanitation Sector

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RATE OF EXCHANGE
(January 2008)
Currency unit =franc CFA
1USD =450 Fcfa

FISCAL YEAR
January 1 2007- 31 Mars 2008

WEIGHTS AND MEASURES
Metric system

ABREVIATIONS AND ACRONYMS

AES	Adduction d'Eau Sommaire (*Water pipe supply system*)
ANICT	Agence Nationale d'Investissement des Collectivités Locales (*Investment of Local Communities Agency)*
AUE	Associations d'Usagers d'Eau (*Associations of Water Users*)
BF	Borne Fontaine (Water *Stand-post)*
BPO	Budget Programme par Objectifs (*Budget Programs by Objectives*)
BSI	Budget Spécial d'Investissement *(Special Budget of Investment)*
CPS	Cellule de Programmation Stratégique *(Strategic Cell of Programming*)
CSLP	Cadre Stratégique de Lutte contre la Pauvreté *(Strategic Framework of Fight against Poverty)*
MTEF	Cadre de Dépenses à Moyen Terme (Medium-Term Expenditure Framework)
DAF	Direction Administrative et Financière *(Administrative and Financial Directorate)*
DGB	Directorate-General of Budget
DNPD	Direction Nationale de la Planification du Développement *(National Directorate of Development Planning)*
DNACPN	Direction Nationale de l'Assainissement et du Contrôle des Pollutions et Nuisances *(National Department for Sanitation and Pollution Control)*
DNH	Direction Nationale de l'Hydraulique (*National Directorate for Water facilitiess*)
DRB	Direction Régionale du Budget *(Regional Directorate of Budget)*
DRHE	Directions Régionales de l'Hydraulique et de l'Energie (*Regional Directorates of Water facilitiess and of Energy)*
EDM	Energie du Mali *(Energy of Mali)*
EPEM	Equivalent de Point d'Eau Moderne (*Equivalent of Modern Water Point*)
FP	Forage avec pompe à motricité humaine *(Boreholes)*
MEF	Ministry of Economy and Finances
MPAT	Ministère du Plan et de l'Aménagement du Territoire *(Ministry of Plan and Regional planning)*
OMD	Objectifs du Millénaire pour le Développement (*Millennium Development Goals*)
PASEPARE	Programme d'Appui Sectoriel à l'Eau Potable, Assainissement et Ressources en Eau *(Sectoral Support Programs to Drinking Water and Sanitation)*
PC	Puits Citerne *(Well Cistern*)
PM	Puits Moderne (*Modern Wells*)
PDSEC	Programme de Développement Socio-économique et Culturel (*Economic, Social and Cultural Development Program)*
PMH	Pompe à Motricité Humaine *(Hand Pump*)

PNIR	Programme National d'Infrastructures Rurales *(National Rural Infrastructures program*)
PROSEA	Programme Sectoriel Eau et Assainissement (*Sectoral Water and Sanitation Program*)
PTF	Partenaires Techniques et Financiers (*Technical and Financial Partners*)
SACPN	Service d'Assainissement et du Contrôle des Pollutions et Nuisances (*Sanitation and Pollution Control Service)*
SIGMA	Système Informatique des Ressources en Eau du Mali *(Mali's Water Resources Information Processing System)*

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SUMMARY EXECUTIF

Object of the Review of Public Expenditures

The present review of public expenditure in the sector of potable water and sanitation in rural and semi urban areas aims at supporting the government of Mali in meeting its objectives laid down within the Strategic Framework of Fight against Poverty and the Millennium Development Goals by 2015. The review analyzes the sector evolution during the period 2001-2006 with the aim of highlighting the institutional and financial framework in which investments of the sector were made. On the basis of this analysis and an estimate of challenges in terms of meeting sector's objectives, the review will have to suggest in a participatory way, actions likely to increase the absorptive capacity of investments and make the sector more efficient.

Access to drinking water

At the end of 2006, the access rate to drinking water in rural area varied from 50 % to 68% according to sources. According to the lowest estimate, there would thus be, 4, 8 million inhabitants living in rural and semi urban who would have access to drinking water on a total population of 9, 5 million. The geographical distribution of water facilities reveals great disparities with regard to the rate of access to drinking water in the regions, which varied from 29 % to 59 % in 2006.

The stock of water facilities in place is composed of 87 % of boreholes equipped with hand pumps and wells and 13 % water stand pipes. In 2006, the total number of water facilities amounted to more than 29.000 (15.600 hand pumps, 9.800 modern wells/cistern wells, and 3.700 water stand pipes). The fact that only 13 % of these facilities are stand pipes indicates that the section of the population living in centers of 2.000 to 10.000 inhabitants is under-equipped compared to the population in rural areas and/or that it has a park of facilities which, for a certain part, are not adapted to the semi urban context.

Between 2001 and 2006, on the basis of infrastructures carried out, it is estimated that the access rate to drinking water in rural and semi urban areas in Mali increased approximately 1 % per year, which constitutes a rather weak performance in comparison to countries of the same region. It is estimated that investments carried out between 2001 and 2006 hardly matched up the demographic trends, i.e. investments carried out made it possible to serve 1,15 million additional people while the population increased by 1,16 million. In comparison with objectives to be reached within the framework of the CSLP (73 % in 2012) and of the MDGs (82 % in 2015), it is obvious that performances of the sector must significantly improve.

Investments sustainability remains an important challenge for the sector. The total breakdown rate of drinking water supply facilities was approximately 30 % in 2006. These broken down facilities represent more than 100 million USS of not profitable investment. The option of technical and financial post-construction of water pipes network by private advisers

(STEFI), which was developed and implemented by the DNH, seems to have contributed to a better maintenance, which attests a good level of functionality of the systems with terminal fountain.
The sector capacity, calculated in a number of facilities constructed between 2001 and 2006 comprises 750 drinking water points per year on average. These latter varies much from one year to another between 355 to more than 1.200. Although the number of facilities carried out remains modest, one can however notes an upward trend of output over the period under review.
Rehabilitation of water points constitutes a substantial part of the total water points carried out (32 %).

Access to sanitation

The coverage in family latrines remains very weak and barely reaches 9 % in rural and semi urban area. The importance attached to sanitation, and in particular the rural sanitation, has been insignificant over the period under review. The majority of rural and semi urban water facilities of the DNH are accompanied by a promotion campaign of hygiene and family latrines, but the share of the resources allocated to that promotion is negligible.

Framework of Programming and post-construction activities of drinking water and sanitation infrastructures

The sector programming during the period 2001-2006 remained primarily based on means and not on objectives. In the absence of a national program and a scientific programming approach, activities of the water sector were carried out in the form of sector investment projects carried out without coordination, often based on different approaches and execution methods. The project approach also constitutes a considerable administrative work for the DNH in terms of management of the various financings.

In 2006, the DNH and the DNAPCPN engaged in the preparation of the Sectoral Program of Water and Sanitation (PROSEA) which emphasizes the government will to move from a project approach to a programmatic one, the objective being a reinforcement of actions coherence and effectiveness. The PROSEA translates a single vision of water and sanitation in rural and semi-urban areas. With the aim of coordinating the realization of the PROSEA, a dialogue framework between actors of the sector was formalized and a road map was adopted at the time of the sector review in 2007. This constitutes a key tool in the process aiming at making the sector more effective and creates conditions for the gradual implementation of a true approach-program in the sector.

An important step towards this approach program was taken with the development of a Budget Program by Objective and a first MTEF covering the period 2008-2010 on the basis of an estimate of means to have in order to reach the MDGs. However there remains a substantial work to do such as: the development of functions and capacities of programming within the DNH and coordination between the various actors; the full functionality of a post-construction-evaluation system based on the SIGMA data base; the development of a univocal mode of calculation of the access rate to drinking water and inclusion of facilities constructed out of the framework of the DNH, in the post-construction agenda.

With regard to sanitation, a substantial work needs to be done in order to allow a true programming and an adequate post-construction agenda of the national policy and under-sector strategies.

Evolution of budget allocations to the water sector

Allocations to the RWSS sector have more than doubled during the period of 2001 to 2006: sector budget allocations passed from 11, 1 billion FCFA in 2001 (15 million USS) to 27, 6 billion FCFA in 2006 (approximately 49 million USS). Compared to the national budget, the weight of budget allocations to the sector increased from 1, 9 % in 2001 to 2, and 1 % in 2006. The sector budget had been subject to a reduction of approximately 17 % in 2002 due to the decrease of external financings on the one hand, and internal financing reduction, in particular the Special Budget of Investment (BSI) on the other hand. The growth of the sector budget since 2003 is explained by an increase of the PTF financings (on average 31 %) and the government's contribution (on average 33 %) between 2003 and 2006.

Evolution of budget execution of the water sector

The budget performance of the sector was modest during the period 2001-2006. On average, the budget execution rate in the sector is about 63 %, but it has fluctuated during the observed period. One can note the bad performance of the external financing and in particular the loans bad execution, whose rate is 45 % on average. The weak performance of loans disbursements is partially explained by the delays incurred on the first loans disbursements and the timid launching of new projects /programs. The grant's rate of execution was around 68 % on average during the period under review. Execution of external financings is also subject to unrealistic disbursements planning and administrative slowness in procurement. According to the DNH, other explanations also exist: certain companies have problems with correctly carrying out contracts, communities and stakeholders' contribution to the initial investment creates delays, as well as slowness on the level of the non objections clause.

Execution of expenditures on internal financing has clearly improved during the period. It has reached a rate of execution of almost 100 % in 2005 and 2006. Problems related to the execution of internal resources during the period 2001-2004 are especially at the level of BSI whereas implementation of ordinary budget was on average 96 %.

Engagement of the Malian Government expressed in terms of internal resources placed at the disposal of the sector is rather important (17% of the total resources carried out). Although the share of expenditures carried out as internal financing expressed as a percentage of the total expenditure remained relatively stable during the studied period 2001-2006, internal financing resources available for the sector have increased appreciably in real terms from 2003 to 2006.

The majority of investments are financed on external resources. On average, external resources financed 88 % of the sector's investments from 2001 to 2006. National projects financed on the State own resources are relatively few and constitute only one small part of the total financial volume. Expenditure carried out on external financing increased by more than four

times in real terms from 2003 to 2006, going from 3, 3 billion FCFA in 2003 to 14, 7 billion FCFA in 2006.

Practically all the expenditure disbursements have been devoted to investments. During the period 2001-2006, capital expenditures were on average 94 % and expenditures related to operations thus represented only 6 % of the total expenditures carried out. Two thirds of the operating budgets are devoted to personnel costs. The level of resources for the purchases of goods and services of the sector is thus extremely low (less than 2 % of the total expenditure between 2001 and 2006), and this affects the capacity of the administration to carry out its missions.

Operating budgets devoted to the DRHE do not enable them to carry out their missions. During the period 2001-2006, the operating budget except wages, allocated to the DRHE, represents less than one quarter (22 %) per year, but only 0, 2 % of the total budget on average is allocated to the AEPA sector. The weak budgets allocated to the DRHE are also source of many problems to which the DNH is confronted.

Financial contribution of communes and beneficiaries of investments is decreasing and the water system of payment is not systematically applied. According to the DNH, contribution to the initial investment causes problems and it was proposed to the government to replace the existing contribution to the initial investment (communes: 10 % and beneficiaries: 5 %) by a contribution which will finance 80 % of the running cost of facilities and 20 % for water national fund. The proposed model of contribution implies a reduction of the financial contribution of beneficiaries/communes (currently 5 % to 1-3% according to the type of facility).

With regard to the operation and maintenance of facilities, beneficiaries are responsible for all charges.

Financing of sanitation

An exhaustive analysis of the sanitation sector financing in rural area is particularly difficult. Sanitation activities (evacuation of excreta) are generally integrated in external financing of water facility projects, but are not separately documented. The sanitation mandate was transferred to the DNACPN of the Ministry of Environment and Sanitation a few years ago. Although it is expected that the DNACPN will give more importance to sanitation in rural area in the future, force is to note that for the moment, projects of the DNACPN are only related to the urban environment. The budget of sanitation sub-sector is modest: 2, 3 billion FCFA in 2006 which represents less than 0, 2 percent of the national budget.

Key observations with regard to public finance management

Preparation of the RWSS sector budget is split between the Ministry of Finances and the Ministry of Plan. Methods, actors and the calendar of preparation are different for the operating budget and the budget of investments creates thus a lack of coherence between the two budgets.

The quality of projections of external financings by the MPAT is low and impedes on the forecast of the sector's financing. This has several reasons: (1) the expenditure over-programming

by project leaders, (2) the lack of fluidity in the circuit of information delays the availability of budgetary information and (3) the fact that approval of new projects is not taken into account by other partners.

However, since 2007, several measures were taken in order to improve the budget planning cycle and it is expected that introduction of the budget-program approach and the MTEF will also contribute to ameliorate the situation.

For the sector of water and sanitation, there are important delays observed in the procurement system. According to a survey carried out by the Head of the Institutional Development, the time between the production of documents of public offering and the contract's recording can vary from 110 to 150 days. However, the DNH has noted that this process often exceeds 150 days within the AEPA sector.

The post-construction budget of water sector activities is weak, at both the collection and operation of data levels. Organization of the budget for post-construction activities and its performance is very complex and involves multiple actors in charge of the collection, treatment and record of information (DNH, DHRE, CPS, DAF, and DNPD).

The system of post-construction activities and financial evaluation does not allow an effective control of the sector budget. It lacks software capable of gathering all financial data on internal and external resources within the DNH. Moreover, the DNH is not yet able to assess the sector's performance according to the BPO's objectives, because of a lack of precise financial and physical indicators.

Main Conclusions

The review highlighted many sector accomplishments and challenges such as: (i) achieving objectives of the Government of passing from 50 percent of access to potable water to 82 percent is difficult but probable; (ii) budget allocations to the sector in real terms increase for more than twice during the last 6 years; (iii) expenditure's increase in the sector has translate into an increase of facilities carried out; (iv) Development of the sector is limited by a weak budgetary performance and not by a lack of financing; (v) the weakness of operating budgets hampers the sector's effectiveness; (vi) the traditional systems of facilities management have to be absolutely reconsidered on the basis of lesson learned and the new systems developed with the collaboration of stakeholders; (vii) the sector is well engaged in the approach-program with regard to harmonization and alignment in accordance with the Declaration of Paris; (viii) sanitation is neglected. The coverage in family latrines is weak; and (ix) mobilization of resources beyond the State is essential to keep pace with the sector's growth.

A number of recommendations were proposed which aim at supplementing the recommendations already made by the DNH within the framework of the development of the MTEF 2007-2009 and the BPO and have been integrated in the road map.

Reinforcement of RWSS key institutions

Introduction of the programmatic approach constitutes a fundamental change with regard to the way programming and post-construction activities were done in the sector before.

Recommendation: A training plan should be put in place specifically with regard to the development and post-construction agenda of the DNH's budget programs. This plan should include not only executives of the DNH at the national and regional level but also the DAF and the CPS of the MMEE.

Reinforcement of the management tools for a greater effectiveness in the sector

There is a crucial need to develop tools and to train executives of the DNH on the budgeting of annual resources required by each division of the DNH. It would be also important to develop standards for the relationship between investment and recurring expenditures which will make it possible to ensure that a minimum of resources should be assigned to recurring expenses.

Recommendation: developing a budget programming tool of the DNH's activities at the national level with a view to reinforce the DNH in the budgeting of resources necessary for operations (in particular the post-construction activities).

Delays are incurred in the execution of contracts in the envisaged financial year. A non realization or a partial realization of contracts scheduled during one financial year affects negatively the consumption of the counterpart funds and, for investments on internal financing, leads sometimes to the cancellation of budget allocations which are not disbursed at the end of the year.

Recommendation: It is important to develop methods of anticipation in the preparation and launching of public offering formalities, the examination of calls offers and contracts preparation.

With regard to the development of the operating budget, the DRBs prepare the budget without including wages of the DRHE within the "pre-arbitrations" framework and without knowing the level of financing available in the BSI for the sector. In addition, until now, the DRHEs do not know the state of execution of some administrative expenditure except wages, in particular those for which procurement is done by DAF. To obtain information, directors of the DRHE were often obliged to come to Bamako to collect information directly from the DAF.

Recommendation: In comparison with the strong increase in budget allocations to the DRHE in 2008, the DNH, DRHE and DRB should formalize an exchange of information which would empower the DRHE to reinforce planning and budgetary activities follow-up.

To make more efficient and effective expenditures in RWSS sector

The promotion of hygiene and sanitation is done as part of the process of beneficiaries' information/sensitization at the time of a water point realization. In much of the cases this promotion is however limited to the aspects of hygiene and sanitation around the point. An interesting experimentation which could also boost this process was made in Ghana through the program of hands washing. It is to be noticed that the Malian Ministry of Health has a broad experience in hygiene and promotion of the public health; it would be thus beneficial to seek his advice in such a process.

Recommendation: In order to reinforce the impact of water supply investments in public health and to promote the construction of individual sanitation systems, the DNACPN and the DNH should give more importance to the promotion of hygiene and sanitation through the development of suitable approaches and their integration in RWSS programs.

The rate of hand pumps broken down is very high in the majority of areas (34 % of breakdown on average), and the DNH, within the framework of the PROSEA has fixed as objective, reduction of this rate to 10 % by 2015. To get there, it is envisaged to carry out a great number of rehabilitations. Given that DRHEs have from 2008 an operating budget definitely higher than the past, implementation of such a program seems realistic.

Recommendation: Parallel to the implementation of the rehabilitation program of facilities, it would be necessary to formalize and put in implementation a program of facilities post-construction follow-up as well as support to communes and beneficiaries. This should be an integral part of the missions devoted to the DRHE. The support-council should also stress payment of water bills and the constitution of a saving to face the needs for maintenance, repair and renewal of the equipment.

Although the annual review constitutes an important tool for the sector, aiming to support the dialogue and the will of donors and the MEF, the periodic organization of meetings between the DNH and the PTF will lead to a better dialogue on the implementation of activities.

Recommendation: Regular meetings during the year between the MMEE/DNH and the PTF will reinforce the dialogue, harmonization, and alignment of supports under external financing, in accordance with the Declaration of Paris.

Increasing the volume of investments

For an effective implementation of the PN-AEPA sectoral objectives, it was proposed to create a Malian Agency of Drinking Water and Sanitation (this intention is supported by a political declaration of December 31, 2004). This proposal still remains in study and it is not possible to come to a conclusion about the coherence of such a structure and it is not a priori obvious to reconcile the creation of such an agency with decentralization. It would however be advisable to start thinking of the possibility of mobilizing other actors to finance the development of the sector and developing models of the type Private/Public Partnership. Finally the financing of broken down water points must be a subject of reflection.

Recommendation: Dialogue should be engaged with other partners with the aim to stimulate their interest in investing in the AEPA sector.

According to the available information, access to drinking water in semi urban centers is weaker than in rural area. A majority of rural and semi-urban centers do not have yet systems of water pipes and the existing systems are in many cases under-dimensioned or with inactive stand pipes and cover only partially the population's needs of drinking water.

Recommendation: A program specifically aiming at providing rural and semi urban centers with potable water and sanitation should be developed.

1 INTRODUCTION

Access to drinking water and to better sanitation services along with an education in hygiene constitute preconditions to an improvement of health and economic productivity of households. They also offer increasing opportunities for education and employment, especially for women and girls. Indeed, the lack of access to drinking water and sanitation has serious consequences in the field of health, education and economic development. Diseases such as diarrhea, malaria, and cholera whose cause is mostly the insalubrity of the environment and the insufficiency of drinking water and sanitation services appear to be the principal sources of infantile mortality in Mali. These diseases affect also the most active population stratum which is the engine of the country's development.

The present review of public expenditures in the sector of drinking water and sanitation in rural and semi urban area is to support the government of Mali in its search for meeting the objectives laid down within the framework of the Strategic Framework of Fight against Poverty and the Millennium Development Goals by 2015.

In accordance with its terms of reference, the review aims at analyzing the evolution of the sector during the period 2001-2006 and focuses on the institutional and financial framework in which sector's investments were made. On the basis of this analysis and an estimate of challenges of the sector, the review will have in a participatory way to suggest actions likely to increase the absorptive capacity of investments and make the sector more efficient. The present review is done in three other countries of the region, namely Burkina Faso, Ghana and the State de Kaduna in Nigeria, and allows thus comparison with other countries.

Since 2004, Mali has engaged in a process of a fundamental recasting of the RWSS sector through the development of a Water and Sanitation sectoral program which aims at passing from an approach-project to an approach-program in accordance with the Declaration of Paris. A MTEF on Water (2008-2010) and a corresponding budget-program by objective were developed and an implementation road map of the national program was adopted in 2007. Recommendations made by the review come in complement to the actions already identified in the road map.

2 STATE OF ACCESS TO DRINKING WATER AND SANITATION

2.1 *Standards and Technologies Used*

The standard for drinking water supply in Mali is an Equivalent of Modern Water Point (EPEM) for 400 inhabitants[1]. This standard is based on the availability of 20 liters/day/inhabitant of water with a medium flow of 8 m3 per day by facility. The level of service in Mali is lower than in the other countries of the region. The number of people to be served by water point is for example 250 inhabitants to Benin and 300 inhabitants in Burkina Faso. The choice of drinking water supply technology is modulated according to natural conditions (water availability), demographic and economic conditions and the preferences of populations. In order to facilitate

[1] 1 EPEM corresponds to 1 drilling hand and 1 terminal fountain. A Simple Water Conveyance (AES) is estimated to 5 EPEM on average and a Drinkable Water Conveyance (AEP) to 10 EPEM on average

the maintenance of equipments, the ministry in charged of water has chosen three types of hand pumps subject to be used according to the regions' specificities. These are: pumps Vergnet, Duba and India. The following table shows various technologies according to the size of the localities.

Table 1 :Choice of technology per habitat

Technology	**Village/fraction**		**Rural centers**		**Semi urban centers**	
	400 - 2.000 inhab.		**2.000 - 5.000 inhab.**		**5.000 - 10.000 inhab.**	
Boreholes equipped with PMH						
Modern wells						
Pastoral water facilities improved[2]						
Simple water conveyance [3]						
Drinkable water conveyance[4]						

2.2 State of Access to Potable Water and Improved Sanitation Services

It is estimated that 9,5 million Malians on a total population of 11,8 million inhabitants live in rural and semi urban areas, that is to say about 80,5 % of the population[5]. This section of the population lives thus in the perimeter of responsibility of the DNH which is a department of the Ministry of Mines, Energy and Water (MMEE). The rest of the population, approximately 2, 3 million inhabitants, lives in urban centers (centers of more than 10.000 inhabitants) whose management and development of water services is conceded to the Energy Company of Mali (EDM[6]).

Table 2*:* Pattern of Malian's settlement by habitat[7]

Categories of centers	**numbers**	**% of population**
Villages/fractions/sites (population lower than 2000 inhab.)	10.029	53
Rural centers (population between 2.000 & 5.000 inhab.)	588	17
Semi urban centers (population between 5.000 & 10.000 inhab.)	173	11
Urban centers (population over 10.000 inhab)	99	19
Total Mali	10.889	100

[2] Mainly micro-networks supplied with solar pumps.
[3] Systems of drinking water supply with a small distribution network and a limited number of stand pipes
[4] Systems of drinking water supply by network, stand pipes and private connections
[5] Projections based on the national census going back to 1998. SIGMA data base. MMEE/DNH
[6] Limited company whose 60 % of the capital is held by the State and 40 % by a private investor
[7] Source: SIGMA data base. DNH.

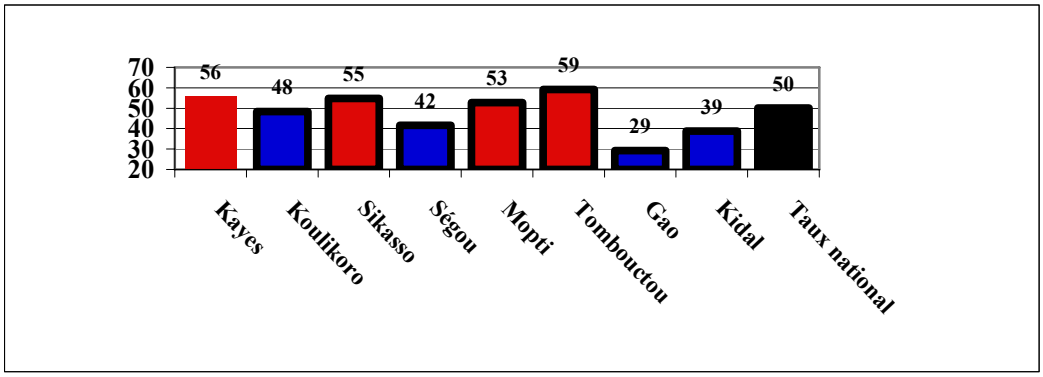
Population in the area of intervention of the DNH for rural and semi urban water facilities breaks up as follows:

Table 3*:* Pattern of the settlement by habitat (except perimeter EDM)

	Population 2006	**% of total pop.**
Villages/fractions/sites (population lower than 2000 inhab.)	6.280.061	65,43
Rural centers (population between 2.000 & 5.000 inhab.)	2.014.359	20,99
Semi urban centers (population between 5.000 & 10.000 inhab.)	1.303.409	13,58
Total rural and semi urban area	9.597.829	100,00

At the end of 2006, the access rate to potable water in rural areas varied from 50 % to 68%[8 9]according to sources. Based on to the lowest estimate, there would be thus, 4, 8 million inhabitants living in rural and semi urban who would have access to drinking water on a total population of 9, 5 million. The geographical distribution of water facilities reveals great disparities with regard to the access rate to drinking water in these areas, which varies from 29 % to 59 % in 2006, according to estimates based on the SIGMA data base. The access rate in the northern areas of Mali (Tombouctou, Kidal and Gao) is to be boosted as in the semi-desert zones there is no dissociation between drinking water supply systems and systems with pastoral vocation.

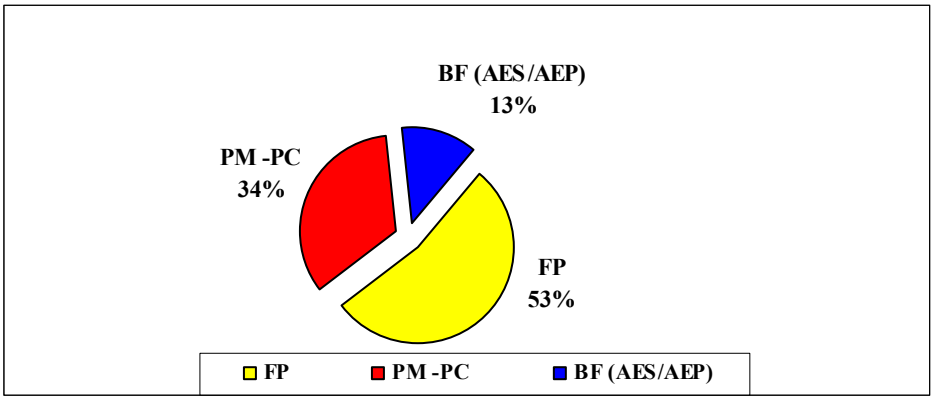
Table 4*:* Access rate to drinking water by area (2006)



The park of water facilities in place is composed of 87 % of boreholes and 13 % stand pipes. In 2006, the total number of water facilities amounted to more than 29.000 split in 15.600 hand pumps, 9.800 modern/cistern wells and 3.700 stand pipes. The fact that only 13 % of facilities are stand pipes indicates either that the population section living in centers having 2.000 to 10.000 inhabitants is under-equipped compared to the population in rural areas or part of the facility park is not adapted to the semi urban context. This situation is confirmed by the National Plan of Access to Drinking Water of 2004.

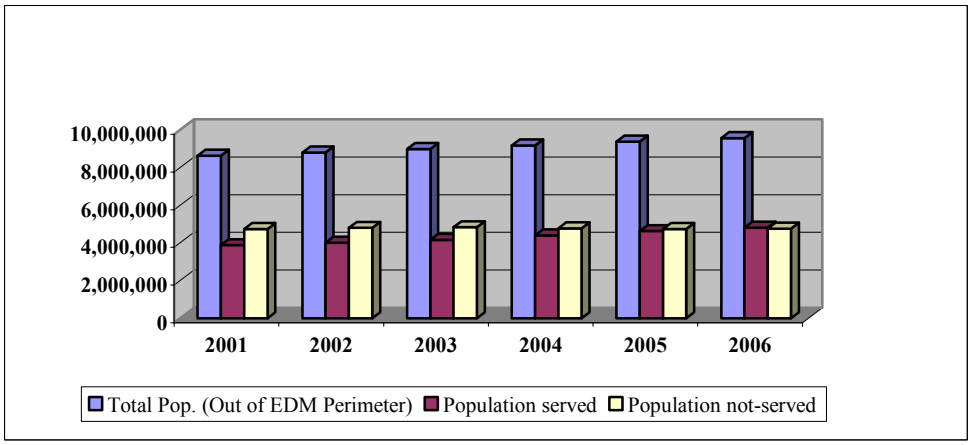
[8] Calculation made by consultants on the basis of information available at the SIGMA and annual reports of the DNH. Considering the current weaknesses of the SIGMA data base, this calculation is contestable just like the 63 percent official access rate of the DNH. ELIM investigation (2007) indicates an access rate to drinking water of 68 % in rural and semi urban areas.

Table 5*:* Distribution of the water facilities by type of technology (2006)



Between 2001 and 2006, on the basis of infrastructures carried out, it is estimated that the access rate to drinking water in rural and semi urban areas in Mali increased approximately by 1 % per year[10], which constitutes a rather weak performance in comparison of certain countries of the region. It is estimated that investments carried out between 2001 and 2006 hardly made it possible to keep pace with the demographic trends, as figures show that investments helped to serve 1,15 million additional people while the population has increased by 1,16 million. With regard to the objectives to achieve within the framework of the CSLP (73 % in 2012) and the MDGs (82 % in 2015), it is obvious that performances of the sector must significantly improve

Table 6*:* Evolution of the population served 2001-2006 (except perimeter EDM)



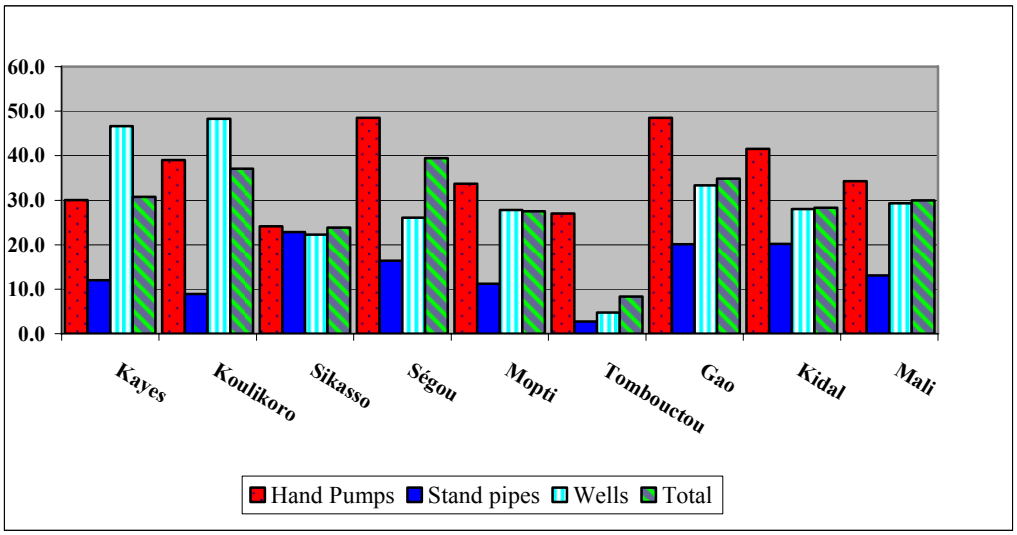
Investments' sustainability remains an important challenge for the sector. The rate of water facilities breakdown is approximately 30 % in 2006. That means 8.700 facilities are inactive on a total of 29.000 (expressed in EPEM). The problem of functionality of water facilities is worrying as they represent more than 100 million USS of investment with no enhanced value. The rate of breakdown varies from 13 % for stand pipes to 34 % for hand pumps. Hence, on a total park of 15.596 hand pumps in 2006, more than 5.300 do not function. Modern

[10] The rate of access to drinking water indicates a section of population having in theory access to drinking water on the basis of EPEM (400 inhab/PEM). The rate of access is distinguished thus from the rate of equipment which does not take into account facilities breakdown and habitats in which there is an over-equipment compared to the level of discounted service.

wells also face an important rate of breakdown, estimated at 29 %, mainly because of the seasonal drying up of facilities. Problems of breakdown of water facilities were not the subject of in-depth study by the Administration. However, according to the DNH, these problems would be caused by ageing infrastructures and systems of pumping out, by the progressive crumbling of the management structures and maintenance, and by the absence of post-construction activities and regular support to communities. Although it is obvious that the high level of breakdown is explained by a number of varied factors, it is however clear that it also reflects the limitations of the Community voluntary model of management. A dialogue has started within the DHN focusing on the search for alternative and innovative model of management and some experimentation of the private management of hand pumps began in several areas of Mali, which is very encouraging.

There is a great variation between regions with regard to the facilities' functionality (see table 7). The rate of breakdown of hand pumps is in particular very high in the areas of Ségou and Gao (48, 5 %), Koulikoro (39) and Kidal (41 %). the high rate of facilities broken down in the pastoral zone (Kidal, Gao, Tombouctou) could be related to the fact that PMHs are not the technology adapted to these pastoral zones where water must be used as well for human consumption as for the watering of cattle. The relatively low failure rate in the area of Sikasso is explained mainly by the efforts put on the establishment of a network of repairing craftsmen in collaboration with the cotton CMDT Company. In addition, the formula of technical and financial post-construction activities of water pipes network by private advisers and auditors (STEFI), which was developed and implemented by the DNH, seems to have contributed to a better maintenance, which attests a good level of functionality of terminal fountain systems. This performance however, concerns only approximately 30 % of the AES and AEP systems, leaving the large majority of these systems without a regular professional follow up.

Table 7: Rate of breakdown of facilities

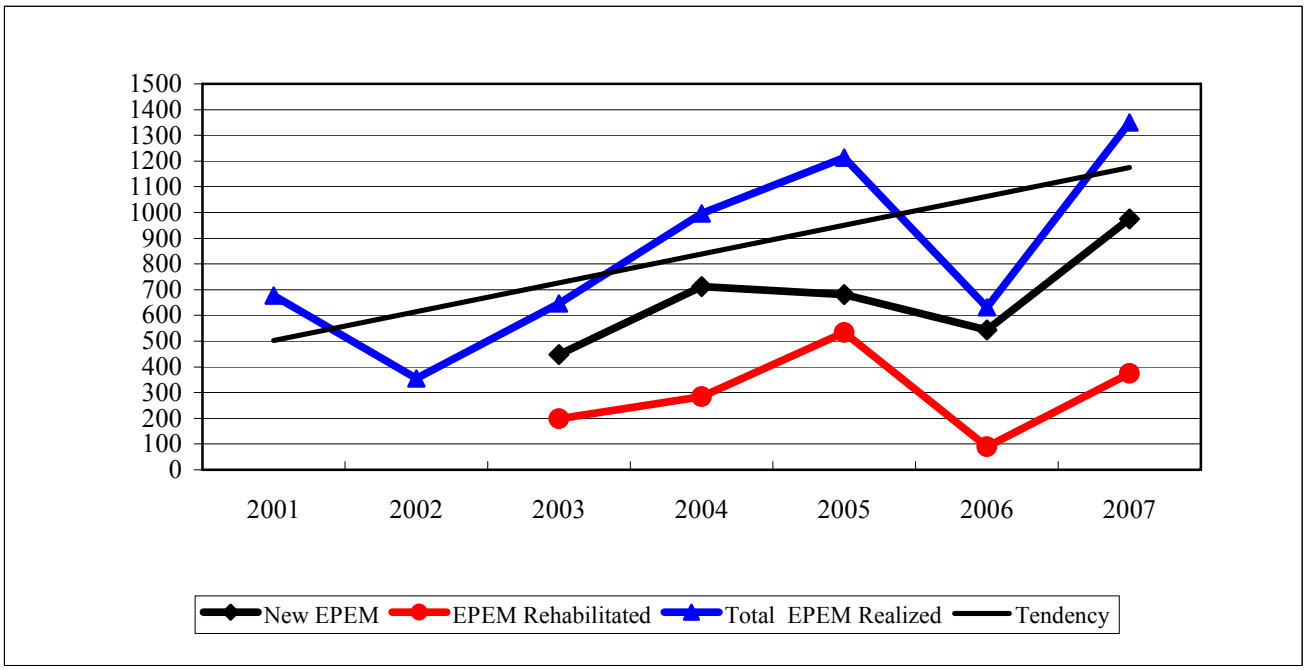


Source: SIGMA data base 2007

The sector's capacity, calculated in a number of facilities (EPEM), and carried out between 2001 and 2006 is 750 drinking water points per year on average. This capacity varies from 355 to more than 1.200. As shown in table 6 above, rehabilitation of water points constitutes a substantial part of the total water points carried out. During the period 2003-2006, rehabilitations have been 32 % of the achievements. In spite of the efforts deployed, the rate of

breakdown remains a big issue. Although the fact that this number is modest, one can however note an upward trend of the output over the period under review.

Table 8: **Number of facilities carried out from 2001 to 2006 (except perimeter EDM)**



Source: Annual reports of the DNH

2.3 Sanitation in Rural and Semi urban Areas

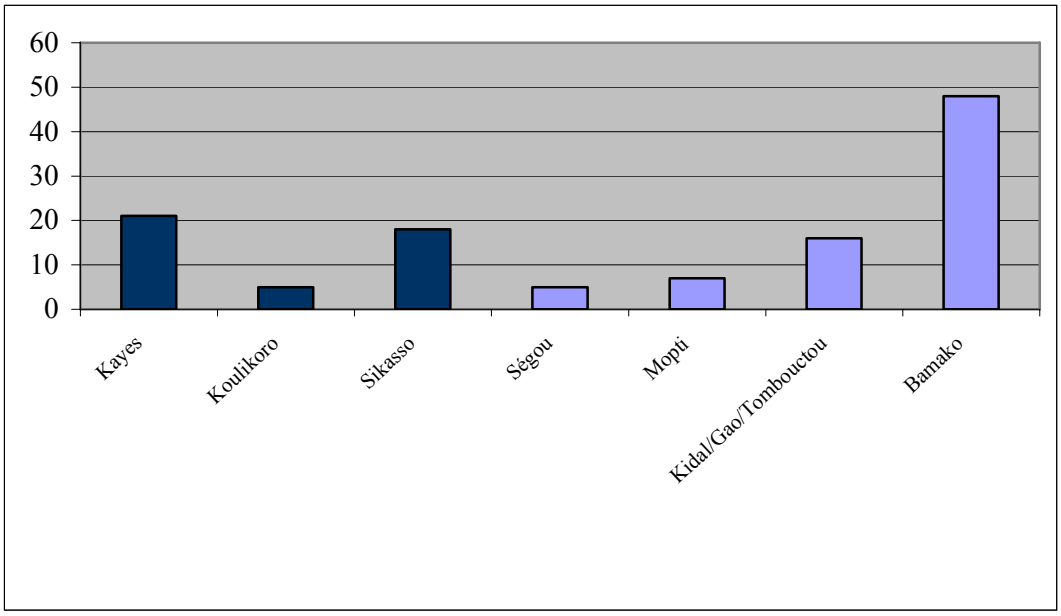
Situation of water and sanitation related diseases is alarming in Mali. The prevalence of diseases related to water and sanitation is high. As a result, the death rate of children less than 5 years old was 219 (2004) for thousand births (was 250 in 1990), showing that almost one child over four dies before reaching the age of five. Diarrhea diseases have a big share in this mortality. Helminthiases (infestation of intestinal worms), which forms part of this category of diseases, also participate to the growth delay which is also very high: 38% of children of less than 5 years suffered between 1996 and 2004 from a moderate and serious[11] growth delay.

The coverage in family latrines remains very weak and barely reaches 9 % in rural and semi urban[12] areas. The Social Health survey done in 2001, which is the only source of information on the evolution of liquid sanitation, indicates a total coverage rate of 15 % (33 percent in urban and 9 percent in rural). According to an analysis made in 2006[13], the number of households without access to hygienic latrines would be approximately 1, 82 million in 2006.

Coverage in latrines in 2001 per area is presented as follows:

[11] Source: Institutional support to the Sector of Water and Sanitation. PASEPARE. 2006
[12] Social survey on Health 2001. Ministry of Health. Republic of Mali.
[13] Document Program. Support to the sector of drinking water, sanitation and water resources Phase 1. Danida/MMEE. 2006

Table 9*:* Coverage in family latrines in % (2001)



The importance given to rural sanitation is negligible over the period under review. The majority of rural and semi urban water facility projects of the DNH are followed by a promotion campaign of family hygiene and latrines, but the share of resources allocated to that promotion remains insignificant. It is estimated that these resources seldom exceed a tenth of the total budget. During the period under review, the DNACPN did not have to carry out only one project in the field of sanitation in rural area. Its efforts have been mostly focused on the urban environment. The adoption of the PROSEA has given new dynamics to sanitation. The DNACPN launched a certain number of actions aiming at giving a more important place to sanitation in the investments carried out in Mali.

3 INSTITUTIONAL AND STRATEGIC FRAMEWORK

3.1 Strategic and Legal Framework of the Sector

The national Policy of water, adopted in February 2006, emphasizes the sectoral approach based on the principles of integrated Management of Water Resources (GIRE) and the strategic orientations to which efforts for the water sector development will particularly relate.

The national Strategy for rural and semi urban centers drinking water supply, adopted in March 2000, aims at implementing suitable approaches, principles and concepts to contribute to a sustainable development of drinking water supply and sanitation with respect to the financing, execution, operation and management of drinking water and sanitation infrastructures. Essential elements of the strategy are described in framed No 1. The strategy is accompanied by a certain number of tools of decision-making such as a methodological guide, a data base of the water points (SIGMA), plates and ortho-photomaps. The strategy which is largely applied by communal actors of the sector since its adoption was revised in 2007 in order to take into account the Water Code (see below) and to better adapt to the process of decentralization.[14]

[14] The revised version of the strategy was submitted to the Government for approval.

Framed No. 1: Principles of the national strategy for drinking water supply.

- *A disengagement of the State from operational functions, in particular, realization and management of water points, and a better focus of the Administration on its usual activities, and functions of council and control of water public facility.*
- *Transfer of competences of water points control to local communities*
- *Approach by the request, i.e. beneficiaries formulate a request for of rural water facilities infrastructure and decide the level of desired service*
- *Financial participation of beneficiaries and local communities in the initial investment as well as the payment of water consumption*
- *Creation of associations of users having the legal personality, to replace the previous boards of management*
- *Implication of the private sector and professionalization of the realization, operation and system maintenance of drinking water supply.*

The Water Code adopted in 2002, provides the foundations of a new regulation of the sector concerning water resources management. It devotes the principle of the public domain of water and its priority uses, by putting in the forefront satisfaction of drinking water needs. It indicates the State is the principal manager of water facilities resources and specifies the methods of management and protection of the resources determining the rights and obligations of the government, local communities and users.

The National Policy of Sanitation as well as the national strategies (liquid waste, rain water, solid waste, and special waste) is under development. It is expected that these documents will be presented for approval before the end of 2008.

An action plan GIRE (PAGIRE) was validated during the first half of 2007 and was submitted to the government for approval. It is a very ambitious multisector action plan which involves a great number of different actors. Its implementation and financing remain to be clarified.

For more than 10 years, evolution of the water sector has been strongly marked by the process of decentralization which is materialized through the adoption in 1995 of the Code of Local Communities and the texts of application relating to it. This law envisages the transfer to local communities of the control of public water facilities of drinking water and sanitation. This transfer of competences implies: (i) the communes ensure the responsibility for planning, design, realization and control of the operation of all water facilities infrastructures on their territory; (ii) the Councils of Circles can play a role in the case of infrastructures concerning several communes; (iii) realization, management and maintenance of infrastructures must be entrusted to private operators on order of the commune and under the legality control of the State; and (iv) decentralized water facilities services have a role of support/counsel near local communities and finally, the control of water points can, if necessary, be delegated to the engineering departments.

3.2 Actors of the Sector

A very great number of actors intervene at various levels in the supply of drinking water and sanitation. The following analysis will be limited to key actors, namely the ministries in charge of water and sanitation, local communities and the private sector.

The Ministry of Mines, Energy and Water through the National Management of Water facilities is the principal governmental institution for drinking water and sanitation in rural and semi urban areas. The DNH has a central structure at the ministry level and 9 regional directions (Regional Directions of Water facilities and Energy - DRHE). The DNH is in the composition of its personnel always marked by his past of control of water facilities, which appears in the quasi-predominance of technical skills relating to water among the executives of the organization. Other competences in the field of sociology, physical and budget planning and post construction-evaluation are largely under represented and in certain case non inexistent (see also section 3.3 below on the capacity of programming and post-construction follow-up within the DNH). On the level of regional water facilities directorates, there is an important staff shortage. In the DRHE, 64 % of the positions are not filed and this constitutes a considerable element of impediment compared to the tasks which fall to them, including the support to decentralized communities.

The Ministry of Sanitation and Environment through the National Directorate of Sanitation, Pollution and Nuisance Control holds since a few years, the mandate for the promotion of sanitation. The DNACPN which has especially operated in urban environment until now is taking many actions directed to develop sanitation in rural and semi-urban areas (see section 3.3 below).

The Ministry of Health has the know-how regarding factors which contribute to the reduction of the incidence of diseases related to water and hygiene. It is question of promotion of suitable family latrines at low cost in rural areas, the social mobilization, the change of behavior communication, research on problems of the public health and healthiness, the IEC on medical risks related to the habitat insalubrity, the promotion hands washing after the use of the latrines as well as construction, use and maintenance of the latrines. Following the institutional reform of sanitation, this ministry is not involved any more in a systematic way in the activities of the sector.

Decentralized communities have a key role, but which is still limited by a lack of capacity. In fact, if the communal control of water points is formally recognized by all partners, there is not a strategy within the DNH to ensure the complete transfer of responsibilities to the communes. That however did not prevent the transfer of the majority of water facilities of the ministry in charge of water to local authorities on the basis of a decree going back to 2002. The first transfers showed the need for more focus on the formation and sensitizing at the communal level as well as the need for a continuous support to communities because of their very limited financial and human resources.

All communes have in theory an Economic, Cultural and Social Development Program (PDSEC) which constitutes the quinquennial programming of the communal development, including the development of drinking water. The majority of water facilities projects carried out by the government are based today in theory on the PDSEC. Taking effectively into account communal priorities and all financings available remains one of the great challenges of the sector. The DNH wishes to bring a support to the planning of water service within the framework of the PDSEC, but the methodological framework and the tools are not yet available.

The private sector and ONGs take part in the realization of water points and the supply of goods and services. The national private sector and ONGs are requested for technical assistance to communes and water's users in the field of water needs' assessment, initiation of Community projects, post-construction of work completion and the definition of methods of operation of water service. It ensures also the mobilization and organization of communities for the installation of operational structures able to take part in the actions of drinking water supply programs in their localities. The private sector ensures also the maintenance and repair of water points and gradually the operation and management of equipments through a management contract signed with the commune or associations of water users (AUE).

A network of repairing craftsmen ensures the maintenance of hands pumps. The major difficulty is about payment of these services. Boards of management often do not have financial resources at the time when the breakdown[15] occurs.

Popularization of latrines is made through international and national ONGs and by multilateral organizations (Plan Mali, World Vision, Helvetas, UNICEF, WHO). The Regional Center for Drinking Water and sanitation at low cost (CREPA) and the UNICEF are important actors for the development of latrines at low cost and didactic material for animation in village area.

3.3 Framework of Programming, Coordination, and Post-construction Activities

The programming of the sector during the period 2001-2006 was primarily based on means and not on objectives. In the absence of a national program and a programmatic approach, activities of the water sector were carried out in the form of sectoral projects of investment carried out without coordination, often based on approaches and different methods of execution. The approach project also constitutes a considerable administrative charge for the DNH in terms of managing the various financings (specific reports/ratios of post-construction follow up for each financing, multiple meetings with the missions of the various PTF, audits of each project etc.

In 2006, the DNH and DNAPCPN engaged in the preparation of Water and Sanitation Sectoral Program (PROSEA) which states the will of the government to pass from an approach project to a programmatic sectoral one. The objective aims at reinforcing coherence and effectiveness of actions. Upon the sectoral consultation on the National Level of Access to Potable Water (PNAEP)[16] adopted by the Government in September 2004, a substantial work was done for the development of a national program covering drinking water and sanitation in rural areas**...**

Framed No. 2*:* **Specific objectives of the PROSEA**

[15] Source: National strategy of maintenance of drinking water infrastructures. DNH. Provisional version. February 2006

[16] National Plan for Access to Drinking Water 2004-2015. Bamako, July 2004

- Develop a durable access of Malian populations to drinking water by the implementation of the PNAEP, and to sanitation, by improving coherence between the two sub-sectors, with regard to the objectives to achieve within the framework of the CSLP II and the OMD as well in the realization of infrastructures as in the implementation of the post-construction measures.
- Ensure sustainable and integrated management water resources
- Install a unified budgetary and exhaustive national programmatic framework, allowing to integrate all the investment needs, follow up measures and public utility control, engineering department operations, reinforcement measures of the capacities of the sector actors, measures of post-construction-evaluation of the whole of the program giving resources detail.
- Ensure harmonization of financing approaches and procedures, for both the State, technical and financial partners, to improve effectiveness in the allocation of funds and to reduce the costs of transaction of technical and financial assistance.
- Install an operational framework of coordination with partners and dialogue framework with actors of water and sanitation sectors.

The PROSEA presents a single vision of water and sanitation in rural and semi-urban areas. With the aim of coordinating PROSEA advancement, a dialogue framework between actors of the sector was formalized. The first annual sectoral review was held in 2007 with a broad participation of the whole sector actors. The road map adopted at the time of sector's review in 2007, constitutes a key tool in the process aiming at making the sector more effective and creating conditions for the gradual implementation of a true programmatic approach in the sector. There are among others, measures related to procurement, follow up of unit costs, installation of mechanisms for the joint financing, reinforcement of human resources, and reorganization of the water administration re-aligning it with the State tasks with regard to programming, post-construction follow up and regularization

3.4 Programming and Sectoral Post-constructionActivities

A Programmatic Budget by Objective and a first MTEF covering the period 2008-2010 was prepared in 2007 on the basis of the estimate of means to put in place to reach the MDGs. This work constitutes an important step towards the emergence of a true sectoral programming. The will to advance a programmatic approach in drinking water and sanitation was concretized by the development of a programmatic budget by objective (BPO) for all activities of the DNH[17], a projection of actions to carry out before 2015 in order to reach an access rate to drinking water of 82 % and Medium-term Expenditure Framework (MTEF) for the period 2008-2010. The MTEF 2008-2010 of the DNH has been the basis of budget negotiations between the MMEE and the Ministry of Economy and Finances.

The development of programmatic and post-construction functions within the DNH remains a prerequisite for the introduction of a programmatic approach and for the alignment of various sources contributing to the development of the sector. Currently, there is no central structure within the DNH really in charge of the coordination and harmonization of the programming and post-construction management of the Department and its sub-structures. This is the legacy of the approach-project. The current post-construction agenda is mainly limited to a

[17] The BPO is articulated around four broad objectives: (i) improve the access to drinking water in an equitable way, (2) improve knowledge and stock management out of water (3) increase the access to water for other uses and (4) Reinforce the capacity of actors. Activities and results are related to each objective.

technical and financial follow up at the level of each program/project often according to methodologies and indicators which differ from a financing to another.

The DNH has a tool making it possible to control the planning and follow up of sectoral activities thanks to the realization of water points inventory in 2003 and the development of SIGMA data base (information processing system of water resources in Mali). However the absence of a fully functional system for the collection, processing and data validation on the annual achievements has had as a result the fact that SIGMA is not regularly updated. It is thus evident to come to a conclusion in a univocal way about the evolution of the access rate to drinking water. The DNH has consequently the duty to carry out a new exhaustive inventory of potable water supply in Mali.

Another element contributing to the fact that the access rate to drinking water varies from one source to another is the absence of univocal calculation mode of the access rate to drinking water in Mali. Hence, it is necessary to harmonize this mode of calculation on one hand[18] and to set up a periodic system of post-construction agenda accepted and applied by all the actors who will feed this base (regional directorates, communes, projects etc.) on the other hand.

The systematic inclusion of the water points built out of the DNH's framework remains an unsolved question. Indeed, it is not clear to what extent achievements made out of the framework of the DNH are taken into account in the SIGMA. Experiences in other countries show that achievements through other actors (ONGs, communes, other ministries etc.) can be consequent[19].

With regard to sanitation, a substantial work remains to be done in order to allow a true programming and an adequate post-construction follow up. The development process of a BPO and a MTEF was also started by the DNACPN. To a certain extent, sanitation in rural and semi urban areas remains however embryonic in Mali. Rural and semi-urban activities mostly were considered in the past as a component of village water facilities projects. A certain number of initiatives aiming at creating a base of programming, execution and follow up of the activities of the sector were started since 2006, notably: development of an updated sanitation policy, development of under-sectoral strategies, study of technological options (standard of latrines) to promote, study of unit costs of the sector, and development of operational approaches. Finally financing is required for the establishment of a system of post-construction activities and the under-sector evolution. With the aim to have a base for programming and post-construction agenda, the DNACPN will start in 2008, studying the access state to family and schools latrines.

[18] One of the major problems is the way of taking the space distribution of water points in account in the calculation of the rate of access to drinking water

[19] An exhaustive inventory of water points in Benin in 2003 highlighted that water points realized out of the framework controlled by the ministry of water would make up to 20 % of the total carried out. The same exercise in Burkina Faso in 2005 shows the volume of the water points realized out of the framework of the ministry in charged with water would be around 25 %. In Ghana, data of the agency in charge of RWSS shows that 45 % of the PMH and 70 % of the PM would have been realized out of the framework of the ministry of drinking water

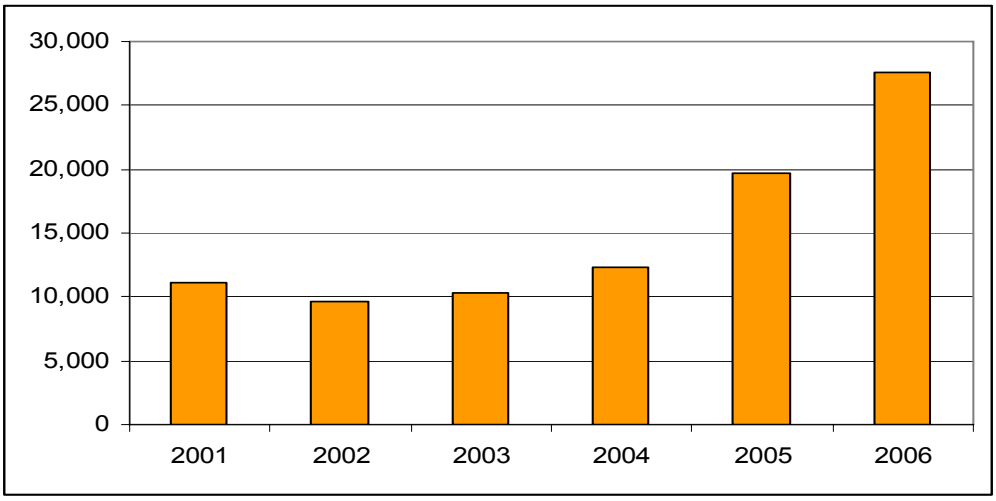
4 ANALYSIS OF PUBLIC EXPENDITURES IN RWSS SECTOR

The following analysis relates only to public expenditures of the AEPA (RWSS) sector carried out through the MMEE. The financings realized through the National Agency of Investment of Local Communities (ANICT) are relatively weak in RWSS sector and were not included in the analysis. Those of NGO and private individuals who intervene in water and sanitation sector in rural areas are difficult measure and have not been integrated into the analysis either.

4.1 Evolution of budget Allocations to RWSS 2001- 2006 [20]

Allocations to the RWSS sector increased for more than twice between 2001 and 2006. As shown in the table below, these allocations passed from 11, 1 billion FCFA in 2001 (15 million USS) to 27, 6 billion FCFA in 2006 (approximately 49 million USS). Compared to the national budget, the weight of budget allocations to the sector increased from 1, 9 % in 2001 to 2, 1 % in 2006 (see table No 11 below).

Table 10*:* Mali - Evolution of budgetary allocations to RWSS: 2001-2006 (in million FCFA)



Source MEF, MMEE

Budgetary allocations increase to RWSS sector after 2003 attests the government will to support a priority sector. This support also came in response to a sector which gave itself the means of clarifying its sectoral objectives and policy through the following tools: development of the PN-AEPA in 2004 and preparation of the PROSEA in 2005, recognition of being a priority sector in CSLP 2 strategy (adopted in at the end of 2006) and finally adoption of the national policy of water by the Council of Ministers in 2006 aiming at reaching the MDGs in

[20] In more of the DNH, analysis of public expenditures in the RWSS sector takes into account the Laboratory of Quality of Water (LQE), a service attached to the DNH. The budget of the LQE is registered separately in the budget of the MMEE. The laboratory has the role of determining, managing and protecting quality of water in Mali. Its operating budget constituted 9 % of the operating budget of the RWSS sector (2006).

RWSS sector. Previously, the sector's budget had known a decrease of approximately 17 % in 2002 due to the drop of external financings on the one hand, and a reduction in internal financing, in particular with regard to the Special Budget of Investment (BSI) on the other hand[21]. The sector budget growth since 2003 is attributable to an increase in the financings of PTF (on average 31 %) and to government provisions (on average 33 %) between 2003 and 2006[22].

[21] The internal budget is composed of an ordinary budget and a Special Budget of Investment (BSI). The ordinary budget includes personnel expenses and the purchases of goods and services. The BSI is composed of projects and programs financed on loans and grants by the PTF, the counterpart funds and projects financed on the State own capital stocks (2006

[22] See Appendix 2

Table 11*:* Mali - Evolution of the RWSS budget allocated and disbursed 2001-2006 (in million FCFA)

	2001	2002	2003	2004	2005	2006
Budget allocated to RWSS	11,082	9,690	10,306	12,360	19,637	27,599
In % of national budget	1,9	1,4	1,4	1,6	2,3	2,1
In % of GDP	0,6	0,4	0,4	0,5	0,7	1,0
Real Growth in %		-16,7	7,8	23,8	49,3	38,5
Budget Disbursement	7,422	6,329	4,549	7,830	14,689	17,537
In % national budget	1,5	1,1	0,7	1,2	1,9	2,1
In % of GDP	0,4	0,3	0,2	0,3	0,5	0,6
Real Growth in %		-18,8	-27,2	77,6	76,3	17,6
Memo						
Budget allocated (in million US$)	15,1	15,5	19,8	24,8	36,3	49,3
Budget carried out (in million US$)	10,1	10,1	8,8	15,7	27,1	31,3
State budget allocated	587,899	679,331	737 552	787,199	850,631	1 307 153
State budget (expenditures carried out) [1)]	491,961	591,507	621 072	657,991	782,197	852,510
CPI		5,0	-1,3	-3,1	6,4	1,5
GDP in nominal terms (in billion FCFA)	1,928	2,330	2,568	2,610	2,753	2,905
Rate of exchange (FCFA to US$)	732	626	519	498	542	560

Source: MEF, MPAT, MMEE, the IMF

1) The MEF is preparing the bill of payment for 2006. Thus data on the State budget disbursement are not yet available for the year 2006.

In nominal terms the allocations to the sector increased as follows:

Table 12*:* Distribution of the budget allocated to RWSS sector 2001-2006 (in million FCFA)

	2001	2002	2003	2004	2005	2006
Internal Financing	**1 554**	**1 087**	**1 645**	**1 773**	**1 576**	**2 922**
Ordinary Budget (in %)	27	39	29	30	36	21
BSI (in %)	73	61	71	70	64	79
External financing	**9 528**	**8 603**	**8 661**	**10 587**	**18 061**	**24 677**
Grants (in %)	49	47	69	83	75	65
loans (in %)	51	53	31	17	25	35
Total	**11 082**	**9 690**	**10 306**	**12 360**	**19 637**	**27 599**
Distribution in % on financing source						
Internal Financing	14,0	11,2	16,0	14,3	8,0	**10,6**
External Financing	86,0	88,8	84,0	85,7	92,0	**89,4**
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: MEF, MPAT

4.2 Implementation of the RWSS Budget[23]

The sector budget performance was modest during the period 2001-2006. On average, the budget rate of execution in the sector was 63 %, but it has fluctuated during the period (see table 13 below). The performance of the sector worsened between 2001 and 2003 passing from a rate of execution of 67 % in 2001 to 44 percent in 2003 and then, knew an improvement between 2004 and 2005. The rate of execution reached 75 % in 2005, but again fell to 63 % in 2006.

[23] The analysis is based as well on the budget of the DNH as on that of the LQE (Water Quality Laboratory)

Table 13*:* Comparison between budget allocations to RWSS and disbursements 2001-2006 (in million FCFA)

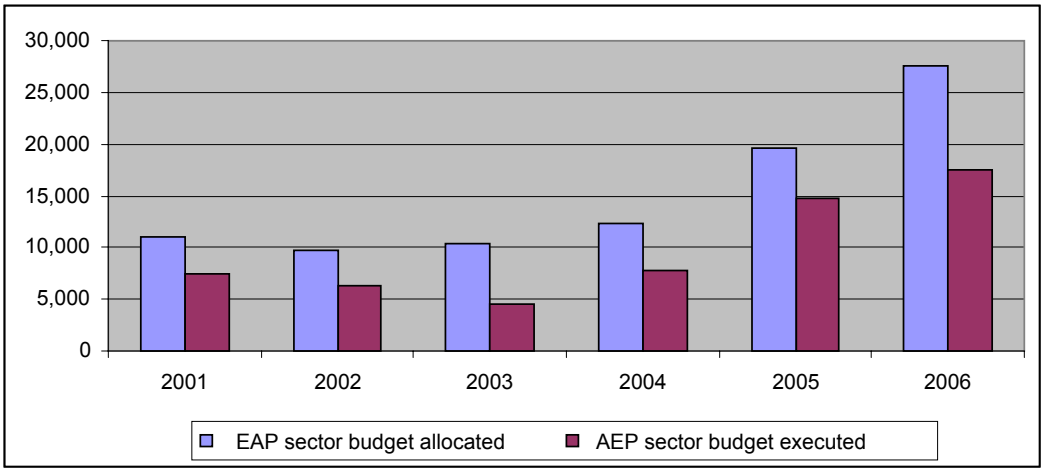
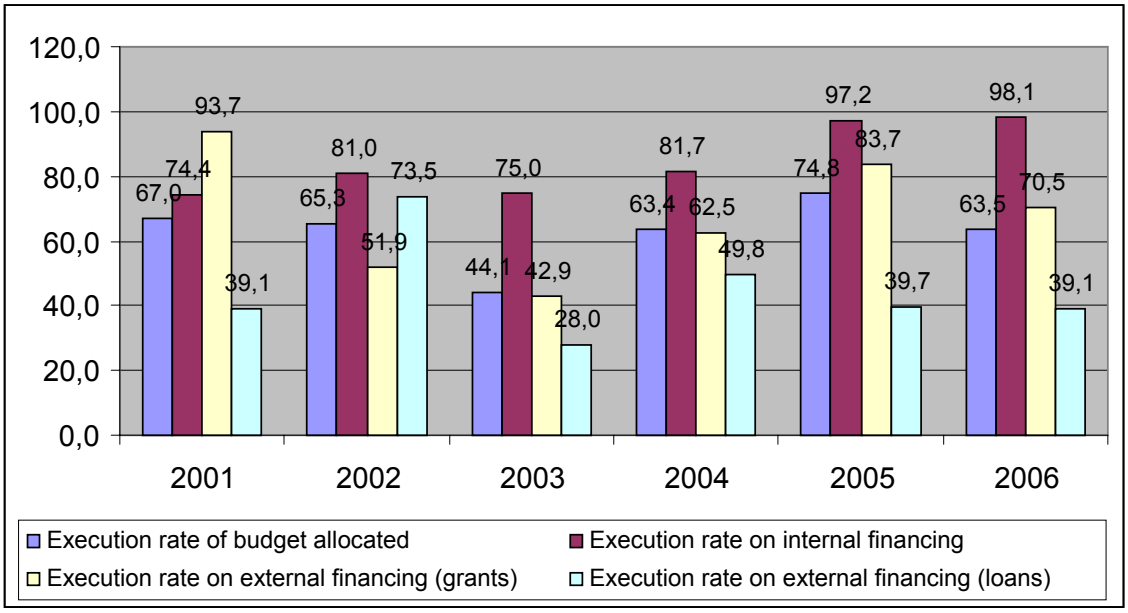


Table 14*:* RWSS Budget Rate of Implementation 2001-2006 (in %)



Source: MMEE, MEF, MPAT

The budget rate of execution is modest. That is explained by a certain number of reasons. The first one is the bad performance of the external financing and in particular the bad disbursement of loans, whose rate of execution is 45 % on average. The weak performance of the execution of loans is explained partially by the delays incurred in satisfaction of conditionalities related to the first withdrawal of loans and the timid launching of new projects/programs. The rate of execution on grants is about 68 % on average for the period under review[24]. Execution of the external financings is also subject to unrealistic planning of disbursements and to administrative slowness in the procurement process. According to DNH'S, other explanations also exist: certain

[24] See Appendix 3

companies have problems with correctly carrying out contracts; the contribution of communities and water users to the initial investment create delays, and slowness of the non objection procedure is a major impediment.

The execution of expenditures on internal financing has clearly improved during the period. It reached a rate of execution of almost 100 % in 2005 and 2006 (see table No 15 below). The issues here, compared to the execution of internal resources during period 2001-2004 are especially at the level of the BSI whereas implementation of the ordinary budget has been on average 96 %.

Table 15*:* RWSS sector rate of execution in internal financing 2001-2006 (in %)

	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**Mean** [1)]
Internal Financing	**74,4**	**81,0**	**75,0**	**81,7**	**97,2**	**98,1**	**84,6**
Ordinary Budget	86,9	97,6	94,8	98,8	98,0	99,3	95,9
BSI	69,9	70,4	66,7	74,5	96,7	97,8	79,3
Internal Financing	*0,0*	*0,0*	*90,9*	*99,3*	*53,3*	*100,0*	*57,3*
Counterpart funds	*83,9*	*70,4*	*52,2*	*68,6*	*110,2*	*97,4*	*80,5*

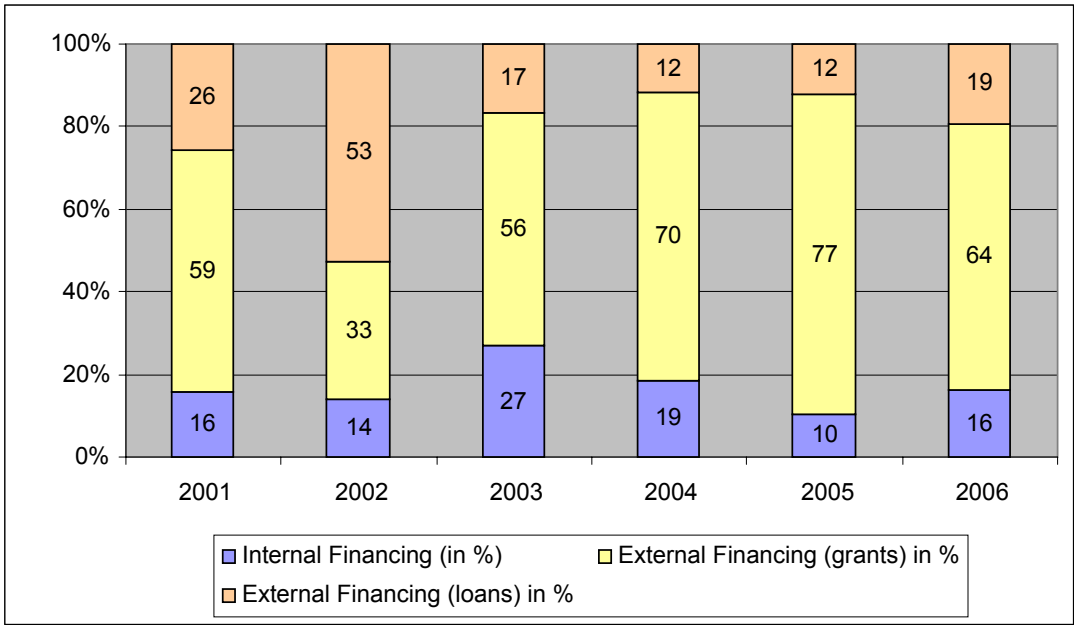
Source: MMEE, MEF, MPAT
1) Annual Average covering the period 2001-2006

4.3 Distribution of Disbursed Expenditures by Source of Financing[25] in RWSS Sector

Engagement of the Malian Government expressed in terms of internal resources placed at the disposal of the sector is rather important (17% of the total resources carried out). Although the share of expenditures carried out on internal financing expressed as a percentage of the total expenditure carried out in the sector has remained relatively stable during the period 2001-2006, sector's resources availability on internal financing increased appreciably in real terms during the period 2003 to 2006 (see table No 17 below). There is in 2006 an important increase of internal resources (84 %) compared to 2005. This situation is due to an increase of counterpart funds, especially loans and to a lesser extent grants. In 2006, the State own resources represented 16 % (that is to say 2, 8 billion FCFA or 5, 1 million USS) of the total expenditure carried out in the sector.

[25] Financial data on internal and external investments of the sector come from the reports of the MPAT since the information is classified by program, source of financing and ministry and cover expenditures planned and carried out.

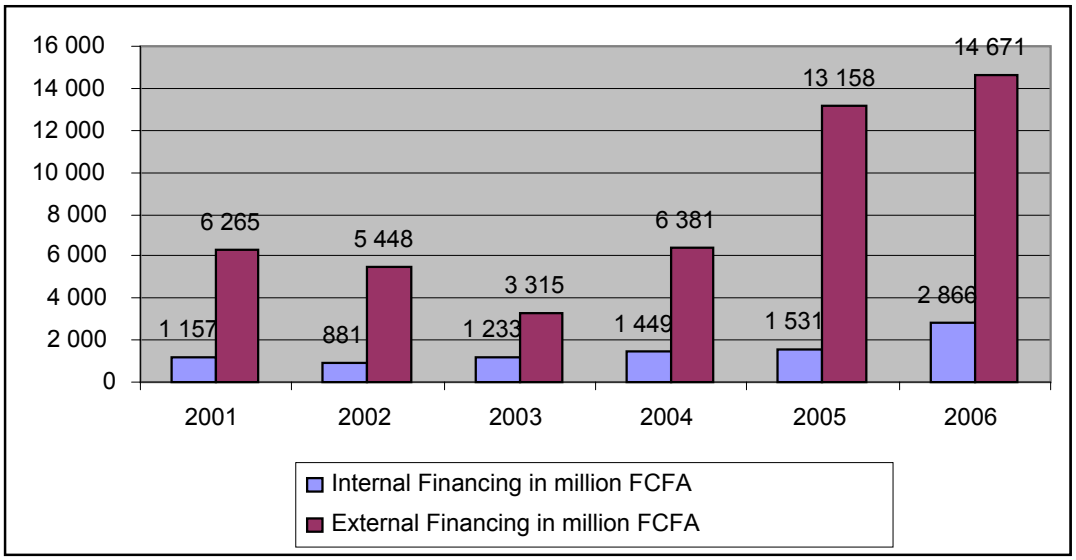
Table 16*:* Distribution of expenditures carried out by source of financing 2001-2006 (in %*)*



Source: MMEE, MEF, MPAT

The majority of investments are financed on external resources. On average, external resources financed 88 % of sector's investments from 2001 to 2006. National projects financed on the State own resources are relatively very few and constitute only one small part of the total financial envelop. The internal budget of investment is split between counterpart funds to projects carried out on external resources and the financing of national projects carried out exclusively on internal resources. National projects constitute less than 2 % of the total investment budget in 2006. These are projects and programs like the architectural study for the DNH's building construction, reinforcement of the DNH/DRHE inventory of water resources and the AEP Emergency Program in rural area.

Table 17*:* Distribution of expenditure carried out by source of financing 2001-2006 (in million FCFA)



Source MMEE, MEF, MPAT

Expenditures carried out on external financing have increased for more than four times in real terms from 2003 to 2006. Since 2003, they went from 3, 3 billion FCFA in 2003 to 14, 7 billion FCFA in 2006. A great part of external financing is made of grants. During the period 2001-2006, almost two thirds of external financing on average consisted of grants whereas the part made of loans was less than one third. By comparing the year 2001 to 2006, one can note that financing on grants strongly increased (138, 3%) than that on loans (64, 7 %). This stresses the importance of grants for the sector. The financing in form of loans has fluctuated during the years 2001-2004, then knew an upward trend since 2004 (see the table below).

Table 18*:* Real growth of external financing in form of grants and loans 2001-2006 (in %)

	2002	2003	2004	2005	2006	2001/06[1)]
Evolution of External Financing (grants)	-54,1	23,3	120,6	95,8	-2,5	*138,3*
Evolution of Internal Financing (loans)	67,3	-77,0	24,6	82,1	88,8	*64,7*

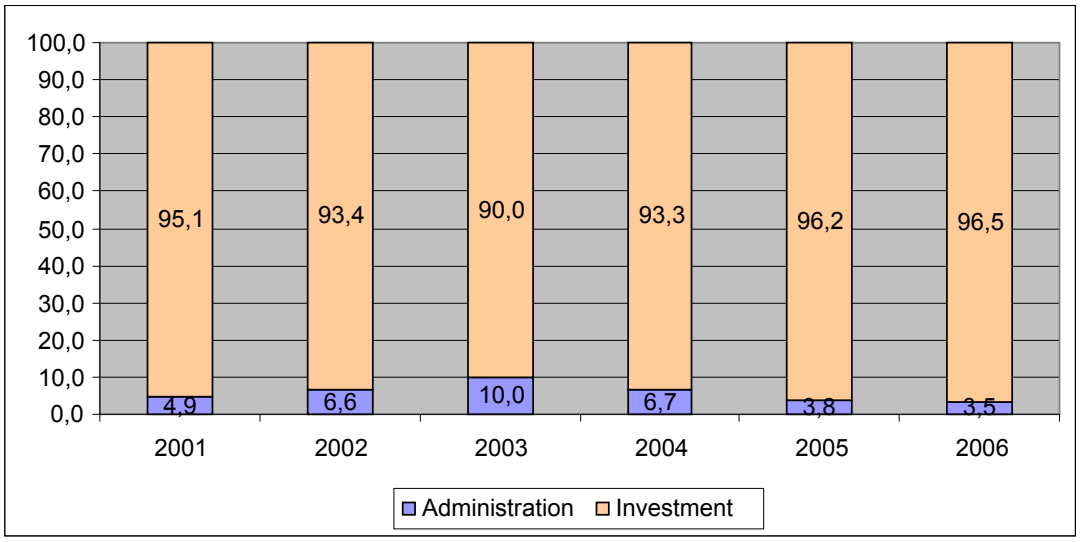
Source: MPAT

1) Growth of the expenditure carried out between 2001 and 2006

4.4 Distribution of Expenditures by Nature in RWSS Sector

Practically, all expenditures carried out are devoted to investments. During the period 2001-2006, capital expenditures have been on average 94 % and administrative expenditures represented only 6 % of the total. Investments (on external resources and internal resources) include a share of funds intended for administrative expenses. It is however difficult to quantify this share in external financings. These expenditures related to the management of projects and financed by the PTF and/or on the State own resources include, among others, purchases of goods and services (such as the transport fees of missions and others) and intangible fixed assets (i.e. research and development studies expenses). According to the Finance Law of 2006, 8 % of the investment total budget was intended for goods and services purchases and only 0, 2 % of the budget went to studies[26].

Table 19*:* Distribution of expenditure by nature 2001-2006 (in %)



Source: MMEE, MEF, MPAT

[26] See Appendix 4

The low level of administrative expenditures impedes on the sector effectiveness. Two thirds of the operating budget are devoted to personnel costs (see table No 20). Although expenditures related to wages represent only 3 % of the total expenditures carried out in 2006, they have increased by 8 % on average during the period 2001-2006[27]. The sector's level of resources for the purchase of goods and services is extremely low, and this affects the capacity of the administration to carry out its missions.

Expenditures carried out for purchase of services represent less than 2 % of the total expenditures between 2001 and 2006. These expenditures have known a 16 % increase on average per year during the period under review but during the same period; investments have increased on average by 27 %.

Table 20: Distribution of expenditures by nature 2001-2006

	2001	2002	2003	2004	2005	2006
Expenditures disbursed by nature (in million FCFA)						
Total	**7 422**	**6 329**	**4 549**	**7 830**	**14 689**	**17 537**
Administration	**362**	**415**	**457**	**521**	**552**	**618**
Personnel fees	287	317	356	416	426	451
Services purchases	75	98	101	105	126	167
Investment	**7 060**	**5 914**	**4 092**	**7 309**	**14 137**	**16 918**
Internal Investment	795	466	777	928	979	2 248
External Investment	6 265	5 448	3 315	6 381	13 158	14 671
Percentage	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Personnel fees (in % administration budget)	79,2	76,4	78,0	79,8	77,1	73,0
Services Purchases in % of admin. budget	20,8	23,6	22,0	20,2	22,9	27,0
Investment	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Internal Investment	11,3	7,9	19,0	12,7	6,9	13,3
External Investment	88,7	92,1	81,0	87,3	93,1	86,7
Real growth in %						
Administration		9,2	11,6	17,7	-0,4	10,2
Personnel fees		5,4	13,9	20,5	-3,8	4,3
Goods & services purchase		23,8	4,1	7,8	12,8	30,4
Investment		-20,2	-29,9	84,3	81,8	17,9

[27] Expenditures related to operations include: (i) personnel costs of the DNH and the Laboratory of water Quality as well as the wages of the contractual and seasonal personnel of the DRHE, and (ii) fees related to the purchases of good and services (i.e. expenditures for material - operation, technical supplies, fuel and lubricants, maintenance, etc).

Source: MMEE, MEF, MPAT

4.5 Distribution of the Budget to the Regions

Inscription of the operating budget except wages of the DRHE is made in the budget of regions, but this budget is very weak. During the period 2001-2006, the operating budget except wages allocated to DRHEs on average represents less than one quarter (22 %) per year and only 0,2 % on average of the total budget allocated to RWSS sector (see the following table). Considering the scale of responsibility of the DRHE (activities related to investments and those related to the DRHE main tasks). The weak budgets allocated to DRHEs prevent these structures from making the sub-regional services operational.

Budget allocations to DRHEs for operating costs except wages are weak compared to the allocations of decentralized services of other sectors. In comparison with the budgets allocated to other sectors, one can note that budget allocations to the DRHEs are definitely lower than those allocated to other decentralized services of the State. Whereas the DRHE allocations for administration expenses except wages constituted 0,2 % of the total budget allocated to the regions in 2006, budgets intended to the Regional Management of Public health, Regional Management of Fundamental and Basic Education as well as the Regional Directorate of Social Action respectively represented 22 %, 12 % and 2 % of the total budget of regions in 2006[28].

Table 21*:* DRHE: distribution by nature of operating budget except wages 2001-2006 (in million FCFA)

	2001	2002	2003	2004	2005	2006
Operating. Budget distribution to DRHE (except wages)	**21,8**	**22,0**	**22,6**	**23,3**	**25,8**	**32,6**
Expenditure for material operation	12,3	12,4	12,7	13,1	13,4	19,8
Transport fee	9,5	9,6	9,9	10,2	12,4	12,8
Operating budget except wages allocated to DRHE (% of the operating budget except wages allocated to the RWSS sector)	26,3	22,4	22,4	22,1	19,0	19,5
Operating budget except wages allocated to DRHE (%)	0,2	0,2	0,2	0,2	0,1	0,1
Memo						
Operating budget except wages allocated to DRHE (in millions FCFA)[1]	82,9	98,0	101,0	105,3	136,1	167,5
Operating budget except wages allocated to DNH (in millions FCFA)	46,6	61,3	64,3	67,0	69,5	94,6
Total budget allocations to regions (in millions FCFA)	7 541	8 696	10 607	14 198	14 993	16 444
Operating budget except wages allocated	0,3	0,3	0,2	0,2	0,2	0,2

[28] The regional budget includes in addition to the common costs and general administration, the cost related to the Fundamental Teaching, Regional Directorate of Public Health, the Regional Directorate of the Social Action and the DRHE (see appendix 6)

to DRHE (in % of the total budget allocations to regions)						
Operating budget except wages allocated to DRHE (in US$)	29 753	35 133	43 554	46 736	47 725	58 230

Source MEF

1 Including the DNH's budget.

The distribution and growth of the operating budget except wages of the DRHE do not reflect the specific needs for the regional directorates in financial resources. The table below shows that during the period 2001-2006, recurring expenses of the DRHE in the budget of regions are identical for all DRHEs. The important budget increases in the region of Sikasso in 2005, Ségou and Gao in 2006 are due to the concerted engagement of the Regional DRHE and the Directorate of Budget (DRB) in the mobilization of higher financial envelopes. For instance, the Regional Directorate of the Budget of Ségou held funds in the regional budget, approximately 1 million FCFA in 2006, in order to support the operation expenses of sub-regional services. That shows the will of the DRB to support the devolution of the sector, even if clearly definite criteria for the attribution of the budget allocations do not exist.

Table 22*:* Real distribution and growth of the operating budget except wages of the DRHE by region - 2001-2006 (in million FCFA and in %)

							Evolution of budget allocations				
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2001 /02**	**2002 /03**	**2003 /04**	**2004 /05**	**2005/06**
Bamako	2 401	2 401	2 472	2 545	2 607	2 684	-4,8	4,3	6,2	-3,7	1,4
Kayes	2 401	2 424	2 495	2 569	2 633	2 711	-3,8	4,3	6,3	-3,7	1,4
Koulikoro	2 401	2 424	2 495	2 569	2 633	2 711	-3,8	4,3	6,3	-3,7	1,4
Sikasso	2 401	2 424	2 495	2 569	4 605	4 742	-3,8	4,3	6,3	68,5	1,5
Ségou	2 401	2 424	2 495	2 569	2 633	4 711	-3,8	4,3	6,3	-3,7	76,3
Mopti	2 542	2 566	2 642	2 720	2 787	2 870	-3,9	4,3	6,2	-3,7	1,5
Tombouctou	2 401	2 424	2 495	2 569	2 633	2 711	-3,8	4,3	6,3	-3,7	1,4
Gao	2 442	2 465	2 538	2 614	2 679	6 758	-3,9	4,3	6,3	-3,7	148,5
Kidal	2 401	2 424	2 495	2 569	2 633	2 711	-3,8	4,3	6,3	-3,7	1,4
Total	21 791	21 976	22 622	23 293	25 843	32 609	-4,0	4,3	6,3	4,3	24,3

Source: MEF

Acquisitions of materials at the level of DRHE subjected to the procurement process are managed by the DAF. The follow-up of the implementation of the operating budget is difficult at this level except for wages at the regional level. The DRHE are only involved in the reception of goods and services. Although information is available at the level of the DAF, they are not shared in a regular way with DRHEs.

DRHEs are not associated to the preparation and management of the BSI and do not profit directly from support within the framework of the BSI and are not involved in the preparation, the management or the post-construction activities. This is explained in particular by the fact that projects are managed by project leaders in coordination with the central administration of the DNH.

4.6 Contribution of the Beneficiaries and Communes

The principle of financial contribution to the initial investment by the beneficiaries and communes is not applied in a systematic way. The current national strategy in place for the supply of drinking water in rural and semi urban areas stipulates a contribution in cash to the level of 15 % to the investment cost (communities 5 % and communes 10%). Because of the difficulties of mobilizing this counterpart, in particular that of communes, some projects do not require any more a financial contribution to the initial investment but the constitution of funds for the maintenance of water facilities at Community level. Other projects usually impose this contribution including the contribution of communes (the PNIR on the World Bank's financing and the PASEPARE on Danish financing).

A new model of contribution is proposed within the framework of the national strategy validation[29]. It was proposed in the new national strategy to replace the contribution on the initial investment by a contribution which will finance up to 80 % of the working capital for the operation of the water points in question and 20 % for a national fund for water. The model of contribution proposed implies a decrease in the financial contribution of the beneficiaries (communes) (from 5 % currently in place to 1-3% according to the type of utility).

The system of payment of water bills does not function in an optimal way due to the high rate breakdown of facilities. As for the operation and maintenance, the beneficiaries are held responsible for all the renewal, operation, and extension costs of the water facilities equipment having a lifespan of less than 20 years. There are no studies making it possible to evaluate up to what point the beneficiaries really pay for water and up to what point a savings is made to deal with maintenance, repairs and the renewal of equipments. The sensitization of users for the payment of water should become a priority for the Administration.

4.7 Financing of the Sub-sector of Sanitation.

An exhaustive analysis of the financing of the sanitation sub-sector in rural areas is particularly difficult. Sanitation activities (evacuation of excrement) are most of the time integrated in water facility projects for external financing, but are not documented separately. It is however clear that those aspects of sanitation and promotion of hygiene constitute the smallest part of the budgets on the projects of drinking water. The mandate of sanitation was transferred to the DNACPN of the Ministry of Environment and Sanitation a few years ago. Although it is awaited that the DNACPN gives more importance to sanitation in rural areas in the future, for the moment it is noted that, projects of the DNACPN are related to the urban environment only. The majority of investments during the last six years were to clear out collectors and construct sanitation wells in the urban centers as well as to develop strategic plans of sanitation for the cities. The budget of sanitation sector is modest and reached only 2,3 billion FCFA in 2006, that is to say 0,2 percent of the national budget (see table No 23 below).

Table 23*:* Sanitation sector's budget distribution - 2001-2006 (in million FCFA)

[29] National strategy of development of drinking water supply in Mali. Final Version - May 28, 2007. MMEE.

	2001	2002	2003	2004	2005	2006
Ordinary Budget	134	173	169	324	338	394
DNACPN	69	74	65	188	194	208
DRACPN	65	99	104	120	122	162
SACPN	0	0	0	16	21	23
BSI	330	630	630	673	630	540
External Financing	178	0	0	776	6 800	1 401
Total Budget for sanitation sector	**642**	**803**	**799**	**1 773**	**7 768**	**2 335**
Memo						
Sector Financing (% of national budget	0,11	0,12	0,11	0,23	0,91	0,18
Total Budget of sanitation sector	876,4	1283,3	1538,6	3557,0	14345,0	4170,0

Source: MEF

The support of the PTF for the DNACPN has been very modest until now. It was limited to some specific activities, in the form of subsidies[30] in general. However, ADB took the commitment to participate to the sector financing from 2008 by giving 7 billion FCFA in the form of loan in order to support the construction of 10.000 latrines in rural area (4 billion FCFA) and to reinforce the institutional capacity of the sector (3 billion FCFA). The success of this intervention will depend mainly on the sensitization and the integration of the population in the projects, which constitute key factors in the implementation of investments[31]. This contribution will also make it possible to conduct a national survey in order to establish a data base for the sector.

The approval of the policy and sub-sectoral strategies by the Council of Ministries is envisaged during the year 2008. This will be an opportunity to mobilize a more substantial support of the government and PTFs in order to make up for lost time accumulated in the sector during last years. The national sanitation program is expected to begin in 2009. For the moment, the policy of subsidy in the field of excrement draining (institutional family latrines) is not stopped.

4.8 Budget Management of the RWSS Sector

Budgeting based on objectives to attain has improved in a substantial way during the last year with the Framework of Medium-term Expenditure (MTEF) 2008-2010. The sector of water and sanitation is among the rare sectors (with health, education, transport and agriculture) that are involved in a programmatic process. Thus, the sector was the subject of the development of a Budget Program by Objective (BPO) and of a first MTEF based on the objectives of the CSLP and the PROSEA. The introduction of the BPO approach allowed for the first time (i) to create a link between the budget resources and the objectives to achieve in each area and at the national level; (ii) to allocate in a rational and transparent way public resources of

[30] During the period under review, the PTF supported the development of strategic plans as well as a financing of 6,800 million FCFA (approximately 12,5 million USS) intended to support the sanitation project of the industrial park of Sotuba in 2005. In 2006, the sector was given a financing of 1.401 million FCFA for the implementation of the sections of worn water and rain water of the strategic plan of sanitation of Tombouctou.

[31] DNACPN, Inventories of fixtures of liquid waste, 2007

the sector; (iii) to reinforce budget foresee ability; and (iv) to have a means for dialogue with the MEF and the PTF. A major asset of the development process of the MTEF 2008-2010 is the fact that it was accompanied by an analysis of the budget control having highlighted a certain number of weaknesses regarding planning, executing and budgeting post-construction activities. The analysis also provided a certain number of recommendations to improve the sector's capacity of absorption.

The MTEF 2008-2010 constituted a very useful tool of plea in budgetary arbitrations between the MMEE and the MEF. Consequently, the budget of the DNH went from 35,634 billion FCFA in 2007 to 40,783 billion FCFA in 2008 of which 32,770 billion FCFA for water facilities, (out of the EDM zone). This budget is very close to the budget required within the framework of the MTEF to achieve the goals laid down for the year 2008 (43,095 billion FCFA).On the other hand, budgets of the decentralized structures of the DNH were appreciably increased because they best highlighted their tasks in the MTEF. These resources are entered for the first time in the 2008 budget of the DNH and will be managed directly at the regional level.

Preparation of the budget of RWSS sector is divided between the Ministry of Finance and the Ministry of Plan. Methods, actors and the schedule are different for the operating budget and the budget of investments. The process of implementation of the budget is the competence of the MEF. It starts with the transmission of the Letter of Framing by the Minister of Finance to the various organizers inviting them to prepare the preliminary drafts of the budget for the following year (including the projects/programs). The fragmentation of the process of budget implementation appears mainly by a separation of the preparation of the budget at two levels:

(1) Discussions on the operating budget of structures including wages for central departments and decentralized structures are done between the Directorate-General of Budget of the MEF, the DNH and the DAF.

(2) Discussions on the development of the budget of investment are held by the National Directorate of Development and Planning (DNPD) of the Ministry of Plan and Territory planning with the participation of the DNH, the DAF, the Department of Strategic Programming (CPS) of the MMEE, and Projects Managers.

In general, budget negotiations for the ordinary budget take place before those of the investment budget and do not include the DNPD and the CPS. The absence of information on the volume of investment in the sector hinders a true discussion of the needs for the sector regarding the operation. In certain cases, the DNH was obliged to insert administrative expenditures in the BSI. At the same time, the DNH has difficulties to budget administrative expenditures, in particular with regard to the costs which are not directly linked to the management of projects.

The quality of projections of external financings by the MPAT is low, what hinders the foresee ability of the sector's financing. This is for several reasons: (1) the over-programming of expenditures by project leaders; (2) the lack of fluidity in the circuit of information delays the availability of budgetary information; and (3) the exclusion of new projects approved by partners. To mitigate this insufficiency, the MPAT requires within the framework of the circular letter, some information on the progress report of the procedures of procurement of each project and on the budget execution of projects during previous periods. On the basis of transmitted information, the Ministry has to re-examine the programming of budgets at the time of budget arbitrations.

On the course of the last two years, the MMEE requested to the departments under its supervision to prepare their budgets from the very beginning of the year and to establish a pilot study starting from April/May, but some problems duel. It is also noted that the budget preparation at the beginning of the year (January/February) does not make it possible for the DNH to take into account the BSI or the triennial program of investment (PTI). As for the development of the PTI and BSI, the DNPD sends the circular letter to the CPS in May/June. A calendar of dialogue, forecast and monitoring sheets relating to the projects are joined to this letter. All project leaders must fill out the cards which are validated later or during a joint meeting. It is important to stress that the letter does not give a figure (what implies that the submitted proposals largely exceed the possible financings) and that the DNH has only one month for the preparation of the BSI budget.

However, since 2007, several measures were taken in order to improve the cycle of budget planning: (i) a circular required project leaders to indicate the investment and operating budget to the DAF before the budgetary negotiations with the MEF. This made it possible for the DAF to check the expenditure as well as to inform itself on the budget related to the investment; (ii) Because of the substantial increase in the allocation for the DRHE since 2008, the DAF paid a visit for the first time to each region in order to inform them on the 2008 budget; (iii) the entries of operational allocations in favor of the regional level reflect a linear distribution compared to the previous years. Within the framework of the 2008 budget, the distribution seems to better take into account the needs and the investment in progress in each region. The majority of regions obtained a financing of 21.5 million FCFA. However, the regions of Mopti and Sikasso, for example, received 8 and 5 million FCFA because the distribution took in account the financing provided to the regions within the framework of the PASEPARE.

4.9 Budget Execution and Post-construction Activities

For the water and sanitation sector, the major problems regarding the good implementation of the budget are mainly the procedures of procurement and the inadequate follow up of the execution of expenditures.

The system of procurement in Mali is characterized by a certain number of weaknesses[32]. The General Directorate of Procurement (DGMP) of the MEF is in charge of the checking and the control of procurement. In spite of very weak personnel number, it seems that the DGMP ensures its mission within reasonable deadlines. Analyses carried out on the system of procurement show however certain weaknesses which make a readjustment of the legal framework necessary in order to supplement it and for it to be in conformity with international standards. A lack of transparency of the system was also noted as well as the need for an independent control of quality (the control of the situation bidders and the conformity of the goods and services provided)[33].

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[32] The procurement is governed by the provisions of Decree N 95-401/P-RM of November 10, 1995 creating the Code of Procurement

[33] World bank, Republic of Mali, Analytical Report on the Procurement System in Mali, Wash cd., the USA, Bamako, Mali, January 11, 2006. Giovanni Caprio, Mission Danida of assessment of the public Finance Management (GFP), 2006.

For the water and sanitation sector, there are important delays in the execution of procurement. According to a survey carried out by the Head of Institutional Development, the deadline between the production of documents of invitation to bid and the recording of procurement can go from 110 up to 150 days at the national level. However, the DNH noted that the process within the framework of RWSS sector often exceeds 150 days.

It has been noted that the following causes leads to procurement slowness:

(i) Preparation of the files starts only when the budget has been voted resulting in the late start of services in the year.

(ii) Important delays have occurred in the attribution of the contracts because of a bad quality of files (bidder documents, the report of inspection and the contract) and those are often rejected by the DGMP. To illustrate this, in 2006 the DNH had prepared approximately 50 reports of which 18 were rejected.

(iii) Although a great part of the PTF follow the national procedures, the application of the principle of the non-objection makes the circuit of approval of contracts longer.

(iv) Administrative slowness brings about delays in the signatures for the approval of contracts.

(v) Finally, the opening of the allocations is sometimes delayed and causes delays in the starting of services for which a contract was signed.

Measures were taken to accelerate the process of procurement. The DNH created a "procurement" group in 2007 aimed at ensuring the quality of files (composed of the DNH, the DAF and a representative of the Cabinet of Minister). The DNH was also committed to prepare the files in the year which precedes the year of execution. Finally, the procurement plan was modified in order to be able to highlight the duration of each stage of the process, the financing and the nature of public offering. In addition, the government also paid particular attention on the reinforcement and improvement of the effectiveness of the system of procurement within the framework of its reform program of the management of public finances[34].

The budget of post-construction activities of the water sector is weak, on the level of collection as well as data operation. Organization of the follow up of the budget and performance is very complex and involves multiple actors in charge of the collection, treatment and documentation of information (DNH, DHRE, CPS, DAF, and DNPD). The DAF follows the implementation of the budget by economic classification and not by project. The DAF has software which makes it possible to print data on the execution state of the projects on the level of payment. However, the system is not used yet to carry out a follow up and report on projects and programs during the year. The CPS has a software but which is connected neither to the system of the DNPD nor to the DNH. On the other hand, the collection and the consolidation of data on the external financing in particular are a major challenge for the DNH and the CPS because information is not communicated regularly to the DNH. Information is also generally presented according to formats which are not in conformity with the budget nomenclature of the

[34] The Governmental Action Plan on the Modernization/Improvement of the Management of Public Finance (PAGAMGFP). The Government of Mali launched the PAGAMGFP to reinforce its system of management of the f public finance. The program was adopted by the Council of Ministers in 2005. Mali, Governmental Action plan on the Modernization/Improvement of the Management of Public Finance (PAGAMGFP), 2007.

Malian government. Finally, certain PTFs do not follow the budget calendar of the government which still complicates the compilation of information[35].

The system of follow up and financial evaluation does not allow a good control of the sector budget management. There is no software to gather all the financial data on internal and external resources within the DNH. Moreover, the DNH is not yet able to assess the performance of the sector according to objectives registered in the BPO due to an absence of precise indicators at the financial and physical levels.

5. COMPARATIVE ANALYSIS OF SECTORAL PERFORMANCES

The capacity of execution of RWSS water points in Mali remains low over the period 2001-2006 (750 water points per year on average) and it is for example very inferior to that of Burkina, whose population living in rural and semi urban areas is comparable.

Table 24*:* Water points carried out: 2001-2006

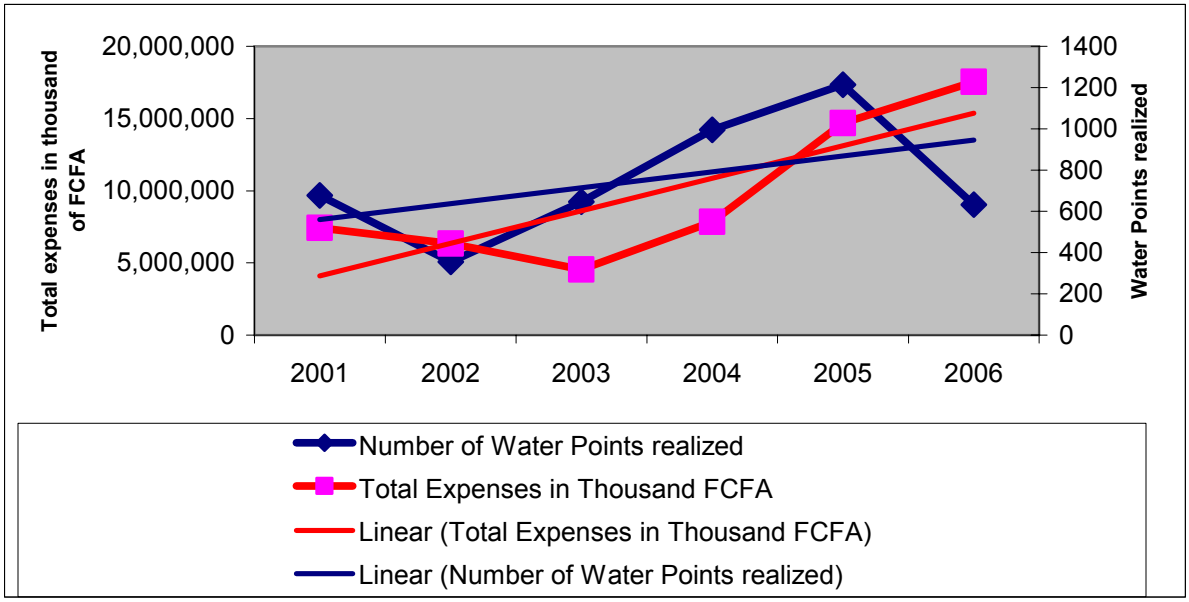
	Yearly average water points realized (2001-2006)	**Rural and Urban population 2006**
Mali	750	9,5 million
Burkina Faso	1.950	9,85 million
Ghana	1.250 + 60 AEPS	14,4 million

Note: Water points carried out in Burkina Faso include achievements made by others that the ministry in charged of water. For a comparison with the achievements of other countries, it will thus be necessary to increase the volume carried out from 20 to 25 %.

The increase of resources dedicated to RWSS sector resulted in that of the facilities carried out over the period. This indicates a certain effectiveness of the sector.

Table 25*:* Comparison of total expenditure of the sector and water points carried out - 2001-2006

[35] MMEE, MEA Sectoral Program Water and Sanitation PROSEA, Cadre of medium-term Expenditure 2008-2010, May 2007



The budget performance is weak in Ghana as in Burkina Faso. Consumption of external funds in particular constitutes an important issue in the three countries. There is a true challenge to better use the available resources

Table 26*:* Rate of execution of the allocated financial resources (average 2001-2006)

In %	**Budget execution rate**	**Execution rate on own resources**	**Execution rate on external resources**
Mali	63,0	98,1	59,5
Burkina Faso	50,3	79,8	46,1
Ghana	47,0	-	44,2

The RWSS cost per capita over the period 2001-2006 is very high in Mali. These figures must be taken with some care. However, it is obvious that the combination of a high unit cost per utility and an overall weak sectoral output in terms of water points carried out has a negative influence on the investment per capita[36]. The program of mobilization of water resources on KfW financing including important expenditures for the creation of recognized high flow boreholes has also an unfavorable impact on this indicator.

Table 27*:* The investment cost per capita in RWSS sector (2001-2006)

[36] A modest output in terms of water points carried out leads to heavier weigh of overheads (expenditure related to the administration operation, costs of transaction, expenses of animation etc

	Total Expenditure in US $ (Investments, animation, administrative expenses etc.)	**Population served**	**Expenditure per person served in US$**
Burkina Faso	91.700.000	2.625.000	35
Ghana	133.800.000	2.600.000	51
Mali	103.100.000	1.150.000	90

Note: The population served in Burkina Faso in this table is 75 % of the overall population served in order to only reflect the population served by the ministry in charged of water.

The average cost of the boreholes equipped with a hand pump in Mali is definitely higher than that of the neighboring countries. The extent and the isolation of the Malian territory generate high expenses for the mobilization of equipment and materials. A relatively limited competition in the private sector constitutes another reason for the high unit costs. The cost of a modern well is also higher compared to that in Burkina Faso. The difference between average depths and the high expenses of mobilization of materials and equipment for certain remote regions in Mali can explain these differences

Table 28*:* Unit costs per capita of investments (in USS)

	Drilling wells PMH	Modern wells	AES/AEP
Mali[37]	42 (56)	56 (75)	39/83
Burkina Faso	36	26	
Ghana	22	20	65/50

The functionality of simplified drinkable water conveyances does not constitute a major problem contrarily in the two other countries. An explanation to this could be the great efforts given by the DNH for the installation of a system of post-construction follow up and support (STEFI) even though this system actually covers only one third of the whole AEPS park.

The rate of breakdown of boreholes equipped with hand pumps on the other hand remains an important issue. As shown in the analysis of the composition of expenditures carried out, the operating budget of the DNH and the decentralized services remain marginal and do not allow the administration to carry out a regular and effective follow up on the field

Table 29*:* Failure rate (2005/2006)

in %	**PMH**	**AEPS/AEP**
Mali	34	13
Burkina Faso	23	33
Ghana	20-30 (?)	20-30 (?)
Nigeria (Kaduna State)	67	
Benin	15	5

[37] Figures in bracket indicate the average investment cost per capita by applying a level of service of 300 inhab./point of water as in Burkina Faso. The standard in Mali is 400 inhab/point) of water.

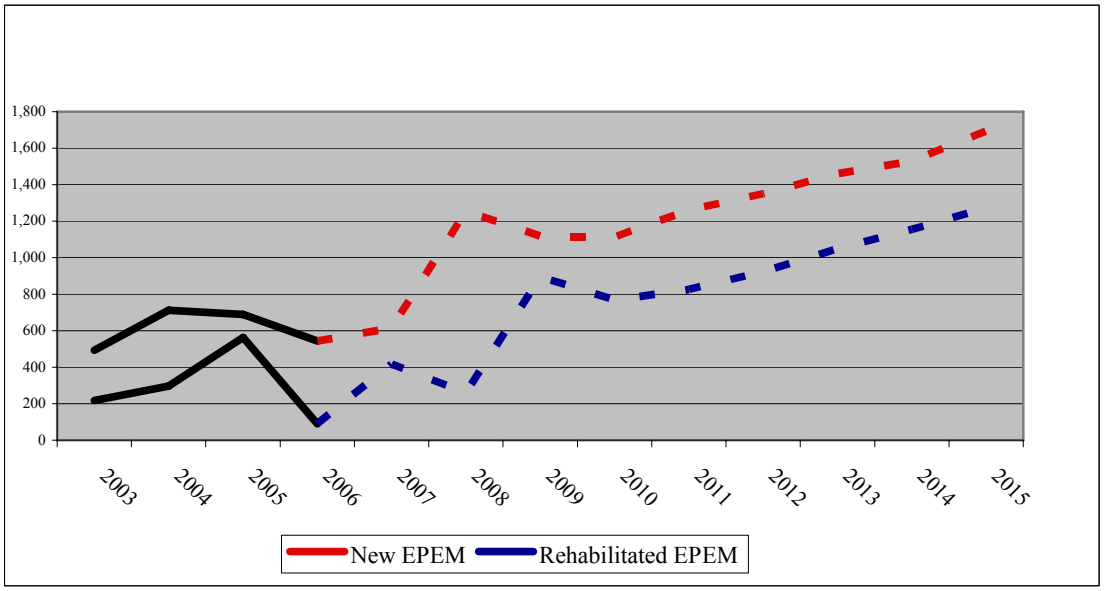
6 MEETING THE MGDs

Achieving the Millennium Development Goals means reaching a rate of drinking water of 75 % for the whole country of Mali in 2015. However the objective retained by the Malian Government by 2015 is a rate of access to water of 82 %. To achieve the goal pursued for the rural and semi urban areas, it will be necessary to increase the output of the drinking water sector by 250% in rural and semi urban areas in comparison with the volume of water points carried out annually between 2003 and 2006. A simulation shows that it would be necessary to carry out 10.800 new EPEM and to rehabilitate 7.150 EPEM during the period 2008-2015 to achieve the goals[38] laid down, that is to say more than 2.200 EPEM per year. To reach the MDGs in terms of sanitation, it was estimated that approximately 135.000 family latrines will be built per year.

The total cost of investments is estimated at 31 billion FCFA per year[39] between 2008 and 2105 meaning 250 billion FCFA from now to 2015 in order to achieve the goals of 82% access rate to drinking water of the Malian rural population.

The following table shows the scenario 2008-2015 retained by the DNH over the period 2008-2015

Table 30*:* A number of water points to be realized by 2015 (except EDM perimeter)



7 CONCLUSIONS AND RECOMMENDATIONS

[38] A rate of access to drinking water of 82 % in all the Circles of Mali and a breakdown rate of 10 % maximum.

[39] Estimate based on the unit costs currently used by the DNH. This estimate includes the investment cost plus the cost related to the realization of water points (animation, studies, supervision of facilities).

7.1 Main Conclusions

The estimated objectives of the Government to pass from a rate 50 to 82 % of access to potable water will be difficult but remains probable. That requires increasing the volume of water facilities constructed from 750 water points to 2.200 per year on average from now to 2015; that is to say an increase in the output of the sector of approximately 250 %. That requires the commitment of all and must begin with the implementation of measures likely to increase the effectiveness and efficiency of the sector, in order to better use the resources available, increase the capacity of absorption, increase the sustainability of investments, and maximize the impact of public expenditures on pubic health.

The endowment sector in real terms increased to more than twice during the last 6 years, which indicates the will of the Malian government to give priority to drinking water access in rural and semi urban areas. Even though the sector remains very dependent on external financings, the share of the internal funding of activities of the sector constitutes 17 % of the total expenditures in average over the period under review.

Increase of the sector's expenditures was translated in an increase of water points constructed. Although the effectiveness of the sector remains modest (an average of 750 water points constructed annually over the period 2001-2006) and largely below the output necessary in order to reach the MGDs, doubling financial resources of the sector was translated into an increase of the number of water points constructed.

The development of the sector is limited by a weak budget performance and not by a lack of financing. The rate of total implementation of the sector budget was 63 % on average over the period 2001-2006. While the execution of expenditures on own resources saw a very positive evolution, problems remain in the execution of external resources. The average rate of annual execution of external resources not exceeding 60 % has even more serious problems in the case of loans. These reports call on internal solutions in favor of the reinforcement of procedures, the means of operation and national capacities.

The weakness of operating budgets hinders the effectiveness of the sector. The structures of the State do not succeed in carrying out their stately missions suitably, in particular for the programming, the maintenance of the water facilities equipments and the support to decentralized entities. This deficiency was since then taken into account. The 2008 budget made it possible to rectify this situation with a very substantial increase in the operating budgets (goods and services) particularly at the level of the decentralized structures of the DNH.

The community based management models of water points must be absolutely reconsidered on the basis of lessons learned and new developed systems with the stakeholders' collaboration. Thirty percent of water facilities breakdown represent a value of 100 million US$. It is not reasonable to continue to invest without having a solution for this problem of services sustainability. The introduction of communes, the local private sector and the civil society in the management and maintenance of water points should be used to speed up the reforms in this field.

The sector is well engaged in the programmatic approach towards harmonization and alignment in accordance with the Declaration of Paris. The road map which incorporates critical actions in the process was adopted at the time of the joint annual review of the sector in May 2007. It constitutes a spectacular projection and must be implemented. Mali must continue its efforts in this field and develop more effective and efficient mechanisms of financing if she

wants to achieve the goals laid down by the government by 2015. The constitution of a common fund to finance part of the national program is an excellent initiative which should make it possible to reduce the costs of transaction of the sector and the workload of the Administration.

Sanitation is still neglected. The coverage in family latrines remains weak. The death rate of infants of less than 5 years is 219 (2004) for thousand births, which means that almost one child out of four dies before reaching the age of five. Diarrhea diseases contribute in a great measure to this mortality. It is essential to re-balance the financing in favor of the promotion of hygiene and sanitation including the hands washing with soap to improve the effectiveness of public expenditures in the sector of water and sanitation and to reinforce the benefit of these programs on pubic health.

Mobilization of the resources beyond the State is essential to an accelerated growth of RWSS sector development. The State alone will not be able to handle the challenge of development and sustainability of the sector. It must mobilize and stimulate the participation of other actors, such as private individuals, communes, the civil society, ONGs and the local private sector. That requires to open the dialogue and to integrate as from now these new actors more actively in future solutions, considering new challenges related on the scarcity of the resource and global warming.

7.2 Major Recommendations

Recommendations of the review aim at supplementing those already made by the DNH within the framework of the development of the MTEF 2007-2009 and the BPO and which have been integrated in the road map. A revision of the road map could take into account recommendations of this review.

A. Reinforcement of the key institutions in the AEPA

A certain number of measures identified in the MTEF process of 2008-2010 aim at reinforcing the capacity of the DNH. They have the following measures: (i) reinforcement of the coordination of central departments concerning planning and post-construction follow up of the PROSEA; (ii) assignment of an agent specialized in the domain of programming, an agent with experience in public finance to the CDI of the DNH and the support to the DRHE in the development of the triennial programming; (iii) reinforcement of the capacity of the DNH at the central level on the basis of recommendation of an organizational study as well as an amelioration of the texts regulating the DNH; and (v) A substantial devolution of budget allocations for DRHE's operations.

Implementation of these recommendations has begun, but organizational study faces some delays. It was decided to conduct this study by phase; a first phase which consists in finalizing the texts of creation of the new DNH is subjected to the joint financing DANIDA/GTZ. Regarding the resources related to the operation of the DNH, the government has already made great efforts concerning the mobilization of additional financial resources in the 2008 budget of the DNH. Concerning the reinforcement of the DNH programming and budget follow up, the DNH will receive before the end of the year 2007, help from an expert specialized in public finance. The decree on his assignment to the DNH was introduced into the administrative channel.

B. Additional Recommendations of the Review

R2. A training plan should be worked out and put into place specifically due to the development and follow up of the DNH budget programs. This plan should include not only executives of the DNH at the national and regional level but also the DAF and the CPS of the MMEE.

The introduction of the programmatic budgeting approach constitutes a fundamental change compared to the way in which programming and post-construction activities were previously done in the sector. To ensure an internalization of this approach and a certain allocation of the concepts and budget procedures (for example budget nomenclature), it is necessary to train responsible staff of various levels in the annual programming and follow up-evaluation.

C Reinforcement of the management tools for greater effectiveness of the sector

Within the framework of the road map, the government and PTFs give a great importance to the follow up/evaluation and reinforcement of sector's capacities. A certain number of management tools were identified in view of greater effectiveness in the sector as well as a way to foster the programmatic approach.

Measures envisaged concern:

(i) Improvement of the data base SIGMA (taking into account investments made by local communities, ONGs.),
(ii) Realization of a new exhaustive inventory of water points in order to update the SIGMA,
(iii) Purchase of data-processing and software equipment for the accounting follow up,
(iv) Development of a standard format for the financial follow up of projects and programs,
(v) implementation of a new system of periodic report,
(vi) Design of a follow up tool of unit costs,
(vii) Implementation of mechanisms of joint financings allowing the setting of priority actions and a reduction of the transaction loads and important workload caused by the specific methods of each source of financing.
(viii) The follow up of preparation of the MTEF 2009-2011
(ix) (vii) Development of an annual programming for each project according to objectives defined within the logical framework of the BPO and budgetary nomenclature of the State.

The road map also includes actions relative to greater effectiveness of the budget procedures: design of a system of projects' follow up, development of a file for the follow up of the procurement stages, and the revision of approval procedures.

Progress was made in a certain number of fields: (1) the software of financial follow up at the level of the DNH will be acquired and installed for post-construction activities of the Danish program at the beginning of 2008; (2) a first standard format for the financial follow up of projects was developed and will be discussed with the PTF soon; and (3) Several sets of terms of reference relating to the design of a follow up tool of the unit costs, the installation of a "common pot", are in the process of finalization. Regarding procurement, the DNH currently prepares an internal analysis on the bottlenecks in the various stages which will be presented to partners soon.

Important delays in connection to the fixed deadline in the road map are to be envisaged for the reinforcement of the physical post-construction follow up (the base SIGMA), realization of a new exhaustive inventory of the water points and the improvement of the report system.

R.2 Develop a budget programming tool of the DNH's activities at the national level with the aim of reinforcing the DNH in the process of budget programs

There is a crucial need to develop tools and to form executives of the DNH in the budgeting of the annual resources required by each division of the DNH particularly operation linked to the follow up of the projects in progress and regarding the kingly tasks of the administration. Within the framework of this exercise, it would be also important to develop standards for the relationship between the investment and recurring expenditures which will make it possible to ensure that a minimum of resources would be assigned for recurring expenses. Reinforcement of the DNH at this level would lead to increase and defend its needs in the process of arbitration with the MEF.

R.3 It is important to develop methods of anticipation in the preparation and launching of bids, the examination of offers and the preparation of contracts.

Delays are incurred in the execution of contracts in the envisaged financial year. Non realization or partial realization of contracts during one financial year affects also negatively the consumption of the counterpart funds and, for the investments on internal financing, leads sometimes to the cancellation of allocations not carried out at the end of the year. Consequently, the DNH and the DGMP should endeavor to conclude the stages relating to the development and launching of tender documents, the examination of the offers and the development of the draft contract before the end of the year which precedes the execution of contracts. That would allow a fast starting of work once the annual budget is approved and available

R.4 With regard to the strong increase of the budget of equipments for the DRHE in 2008, the DNH, the DRHE and the DRB should formalize an exchange of information which would allow the DRHE to reinforce the planning and the budget follow up.

(1) With regard to the development of the operating budget, the DRHE should inform the DRB on the budget of the BSI. To date, the DRB prepare the operating budget (except wages) of the DRHE within the framework of the "pre-arbitrations" without knowing the level of financing available in the BSI for the region. Formalization of an exchange of information between the DRHE and the DRB on the programming of the BSI before budgetary negotiations would make it possible for the DRB to better take into account recurring expenses related to the investment.

(2) With regard to the follow up of the operating budget, the DRHE in collaboration with the DRB and the DAF should establish a regular report on the implementation of the operating budget. This would in particular help the DRHE to better follow the realization of the operating budget except wages. Until now, the DRHE do not know the state of execution of certain operating costs except wages, particularly those for which the procurement is supervised by the DAF. To obtain information, directors of the DRHE were often obliged to come to Bamako to collect information directly from the DAF.

R.5 In order to reinforce the impact of investments in water facilitiess in terms of public health and to promote the construction of individual sanitation systems, the DNACPN and the DNH should give more importance to the promotion of hygiene and

sanitation through the development of suitable approaches and their integration in RWSS programs.

A certain promotion of hygiene and sanitation is done today like part of the process of information/sensitization of the beneficiaries at the time of the realization of a water point. In much of the cases, this promotion is limited however to the aspects of hygiene and sanitation around the point. Reinforcement of this promotion on hygiene could start with the study of new approaches of social marketing adopted in other countries and, the study of concepts of latrines at lower cost, the support to communes in the promotion of hygiene and sanitation near the populations, the integration of the promotion of autonomous sanitation in communal plans of development, and the development of a partnership public/private for the promotion of sanitation. An interesting precedent which could also inspire this process was made in Ghana through the program of hands washing. It is to be noticed that the Ministry for Health in Mali has great experience hygiene promotion of the public health and it would be thus beneficial to get him involved in this process.

R.6 Parallel to the implemnetation of programs of water points rehabilitation, it would be necessary to formalize and put in place the post-constructionof water points as well as a support to communes and to the beneficiaries as an integral part of the missions of the DRHE. The support should also stress the payment of water and the constitution of a funds intended to face the needs of maintenance, repair and renewal of the equipments.

The rate of breakdown of hands pumps is very high in the majority of regions (34 % of breakdown on average), the DNH within the framework of the PROSEA has fixed as objective, to reduce this rate to 10 % by 2015. To get there, it is envisaged to carry out a great number of rehabilitations. From the point of view of perpetuation of future investments, it is however important that the DNH gives great importance to the post-construction follow up of water points and the formalization of this one in the annual program of the DRHE. The maintenance of water points is the responsibility of communes and beneficiaries but the DNH has an important role in terms of post-construction functionality of water points.

R.7 Regular meetings during the year between the MMEE/DNH and the PTF will reinforce harmonization and alignment of supports under external financing in accordance with the Declaration of Paris.

Given the fact that the annual review constitutes an important tool for the sector aiming to support the dialogue and discussions with donors and the MEF, periodic organization of meetings between the DNH and the PTF will allow a better dialogue on the implementation of activities. These meetings constitute an opportunity in particular for a follow up of actions identified in the road map.

R.8 Reflections should engaged with aim of stimulating other partners to invest in the RWSS sector.

For the effective implementation of the PN-AEPA and the achievement of sectoral objectives, it was proposed to create an agency of drinking water and sanitation (this intention is supported by a political declaration of December 31, 2004). This proposal still remains in study and it is not possible to come to a conclusion about the coherence of such a structure and it is not obvious to reconcile the creation of such an agency with decentralization. It would however be advisable to start a reflection on the possibility of mobilizing other actors to finance the development of the sector by encouraging models like Private-Public Partnership. Is there any

potential? For potable water pipes (AEPS and AEP), could one consider a public-private partnership not only for the management and maintenance of systems, but also for the initial investments and extensions of installations? In the same way, a reflection must be engaged about the financing of RWSS water points on own resources by the communes.

Finally, financing of broken down water points must be the subject of reflection. Is it acceptable that the State continues to finance the rehabilitation of the broken down water facilities, particularly when the breakdown is due to a bad management and failing maintenance by users?

R.9 A program specifically concerning food and sanitation in rural and semi urban centers should be developed.

According to the information available, access to drinking water in semi urban centers is weaker than in rural areas. A majority of rural and semi-urban centers do not have yet systems of water pipes and the existing systems of water stand pipes are in many cases under-dimensioned and meet only partially the populations' demands for drinking water. The DNH would have, consequently, to consider the development of a specific program for the food supply of these centers. Given that the problems of sanitation arise with acuity especially in the habitats with strong concentration of population, such a program should be carried out in collaboration with the DNACPN to ensure that sanitation is fully integrated in this program. Such a program could be the subject of a joint financing by the government and other partners and thus constitute a first test of the implementation of new methods of joint financing.

Appendix 1: Sub-regional comparison of expenditures carried out in RWSS sector 2001-2006

	2001	2002	2003	2004	2005	2006
Access to potable water (in %)						
Ghana	41					53
Mali	45					50
Burkina Faso	46 (?)					60
Total expenditures (in million US$)						
Ghana[1)]	10.7	24.9	29.2	19.9	47.7	65.5
Mali	10,1	10,1	8,8	15,7	27,1	31,3
Burkina Faso	18,0	6,6	9,8	8,7	16,0	32,6
Part of National Budget (in %)						
Ghana[1)]	1,2	2,5	2,2	1,3	2,2	2,6
Mali[2)]	1,5	1,1	0,7	1,2	1,9	2,1
Burkina Faso	3,1	1,3	1,5	1,0	1,6	2,8
Part of GDP						
Ghana[3)]	0.2	0.4	0.4	0.2	0.5	0.5
Mali	0,4	0,3	0,2	0,3	0,5	0,6
Burkina Faso	0,9	0,2	0,2	0,1	0,3	0,5
Memo						
Ghana						
Total expenditures (in million US$)[2)]	11,6	11,6	34,0	29,7	18,7	29,3

Source: Report PER (Mali), Report PER (Ghana), Report PER (Burkina Faso)

1) In Ghana, the national budget is made of different sources of financing which are documented by various public entities, which makes difficult a composition of the data relating to the achievements of the national budget.

3) The Government of Mali is preparing the 2006 Bill of payment 2006 and data relating to the budget of State expenditure realized are not yet complete for the year 2006.

3) Expenditure carried out is based partially on the information provided by the principal agency responsible for planning, follow up, and coordination in RWSS sector in semi urban and rural areas. A great part of expenditures was not the subject of audit by the Ministry of the Economy, Finances and Planning.

Regional comparison of expenditures carried out in RWSS sector per source of financing 2001-2006.

	2001	2002	2003	2004	2005	2006	*average/year*
Allocated expenses							
Mali	**100**	**100**	**100**	**100**	**100**	**100**	*100,0*
Internal Financing	14,0	11,2	16,0	14,3	8,0	10,6	*12,4*
External Financing	86,0	88,8	84,0	85,7	92,0	89,4	*87,6*
Burkina Faso	**100**	**100**	**100**	**100**	**100**	**100**	*100,0*
Internal Financing	15,7	13,7	18,5	19,3	25,8	24,5	*19,6*
External Financing	84,3	86,3	81,5	80,7	74,2	75,5	*80,4*
Ghana	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	*100,0*
Internal Financing	9,9	3,9	15,7	17,5	8,4	7,0	*10,4*
External Financing	90,1	96,1	84,3	82,5	91,6	93,0	*89,6*
Expenditures carried out[1)]							
Mali	**100**	**100**	**100**	**100**	**100**	**100**	*100,0*
Internal Financing	15,6	13,9	27,1	18,5	10,4	16,3	*17,0*
External Financing	84,4	86,1	72,9	81,5	89,6	83,7	*83,0*
Burkina Faso	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	*100,0*
Internal Financing	20,2	13,7	18,5	19,3	25,8	24,5	*20,3*
Internal Financing	79,8	86,3	81,5	80,7	74,2	75,5	*79,7*

Source: PER (Mali), PER (Ghana), PER (Burkina Faso)

1) A distribution of expenditures carried out in the RWSS sector is not available.

Appendix 2: Distribution of the budget allocated to the RWSS sector per source of financing 2001-2006 (in million FCFA

	2002	**2003**	**2004**	**2005**	**2006**	*average/year 01/06*	*2001/06*	*average/an 2003/06*	*2002/06*
Internal Financing	**-33,4**	**53,3**	**11,2**	**-16,5**	**82,7**	***19,5***	***73,3***	***32,7***	***160,2***
Ordinary Budget	-2,7	14,8	13,0	0,4	8,8	*6,9*	*37,9*	***9,3***	*41,8*
BSI	-44,6	78,1	10,4	-23,6	123,8	*28,8*	*86,3*	***47,2***	*236,2*
External Financing	**-14,0**	**2,0**	**26,1**	**60,3**	**34,6**	***21,8***	***138,8***	***30,8***	***177,7***
Grants	-17,1	49,0	51,6	46,1	15,8	*29,1*	*216,7*	*40,6*	*281,9*
Loans	-11,1	-39,8	-29,8	128,1	91,8	*27,9*	*64,5*	*37,6*	*85,1*
Total	**-16,7**	**7,8**	**23,8**	**49,3**	**38,5**	***20,5***	***129,6***	***29,8***	***175,7***

Source MEF, MPAT

Appendix 3: Distribution of the budget of investment by nature in 2006

	2006			
	Internal	**FCP**	**External**	**Total**
Budget of investment in thousand FCFA				
21 Intangible fixed assets	53 000	0	2 000	55 000
23 Acquisitions, constructions and major repairs of buildings	240 000	18 983 000	1 602 000	20 825 000
24 Acquisitions, constructions and major repairs of materials and furniture	0	3 840 000	0	3 840 000
62 Purchases of goods and services	0	1 854 000	298 000	2 152 000
Total	**293 000**	**24 677 000**	**1 902 000**	**26 872 000**
Budget of investment (in %)				
21 Intangible fixed assets	18,1	0,0	0,1	**0,2**
23 Acquisitions and constructions	81,9	76,9	84,2	**77,5**
24 Acquisitions and major repairs	0,0	15,6	0,0	**14,3**
62 Purchases of goods and services	0,0	7,5	15,7	**8,0**
Total	**100,0**	**100,0**	**100,0**	**100,0**

Source MF

Appendix 4: External Financing carried out in the form of grants 2001-2006 (in million FCFA)

	2001	2002	2003	2004	2005	2006
Programme Régional Solaire II (EU)		105	166	282	886	2 969
Gestion Integ. Ress. Eau Devel Usage Mult. Bassin Fleu (ND)						0
Gestion Intégrée Ress Eau Niger Supérieur (BM/ PNUD)						592
Mobilisation Ress Eau & AEP 1ere région (KfW)			403	1 575	2 025	4 040
AEP région Kayes Ségou Mopti (Japon)					4 486	2 809
AEP Assainisse. Centre semi urbain sud Mali (AfD)			0			29
Hydraulique villageoise cercle de Baraoueli (Luxemb)	897					
Hydraulique villageoise en 7e région (GAO) - Projet d'appui à la dec de l'hydrau dans la région de GAO (Belgique)	0		0	234	504	751
Develop rural intégr. Mopti Tombouctou (BID) (CLARIFY WITH DNH)	29	566	983	1 356	1 412	359
AEP centres urbains ruraux Nioro et Diema (AfD)	0	0	171	254	645	388
Hydraulique villageoise 3ième, 4ième, et 5ième région (AFD)	20	423	320	1 396	1 664	
Hydraulique villages. UNICEF Phase III	107	431				
Adduction d'Eau Potable Régions du Nord (AFD)			114			
Adduction eau de Kidal (Etudes et Travaux)	47	10	490	355	50	
Programme Hydraulique Villages Mali Sud (AFD)	79	0	11	111		
Etude AEP centres semi-urbain en 4ième région (BAD)	15	163	71	185		
Etude AEP centres semi-urbains en 2ième région	60	0				
Alimentation Eau Potable cercles Kat KKRO Kangab/Japon	3 141	260				
Equipement Labo. Analyse Qualité Eaux	182	80	46			
Etude faisab. Petits bages retenue eau R.Kayes	0	112	35			

Gestion Hydro-ecolog. Du Niger sup (GHENIS) ND	200	92	5			
Sous-total	**4 776**	**2 242**	**2 815**	**5 748**	**11 672**	**11 936**

Source MPAT

Appendix 5: External Financings realized in the form of loan 2001-2006 (in million of FCFA

	2001	2002	2003	2004	2005	2006
Hydraulique villageoise & pastorale phase III (Fonds Koweitien FDKEA)		433	80	495	1 175	2 144
Programme AEP et Assainiss milieu rural (FAD)					351	1 789
Développement de l'agriculture Kangaba (BID)					63	384
Alimentation AEP Assain. Fana Centre Semi Urbaine (AFD)					286	187
Hydraulique villageoise plateau Dogon (BOAD)		1 030	58			
Deuxième Progr. CEAO Hydr. Villages. Pastor (Fonds Koweitien FDKEA)	173	156	5	412	452	
Hydraul Vill & Pastorale (3ième Région) (Fonds Koweitien FDKEA)	1 018	865	229			
Création Points d'eau Régions Kayes & Kkoro (BID)	78	637	178	132		
Projet Eau Potable dans le Cercle de Tenenkou (Fonds Koweitien FDKEA)	1 005	416	449	223	10	
Etudes APD ouvrage annexe station Kangaba (Etats Mata)	10	135	45	61		
Sous-total	**2 283**	**3 672**	**1 044**	**1 323**	**2 337**	**4 504**
TOTAL (Don et Emprunt)	**7 060**	**5 914**	**4 092**	**7 309**	**14 137**	**16 918**

Source MPAT

Appendix 6: Distribution of the regional budgets in 2006

	Bamako	Kayes	Koulikoro	Sikasso	Ségou	Mopti	Tombouctou	Gao	Kidal	Total
Allocations budgétaires (en '000 de francs FCFA)										
Charges Communes Région	1 482 675	1 481 836	795 043	1 756 963	1 374 467	1 024 469	790 557	986 709	636 338	10 329 057
Administration Général	1 340	37 049	42 897	50 298	34 710	56 382	24 955	24 521	11 609	283 761
Enseignement fondamental	269 604	58 466	128 881	48 912	96 508	54 435	45 350	24 384	16 660	743 200
Enseignement de base	1 183 669	535	649	428	535	883	991			1 187 690
Direction Régional Santé Publique	13 932	507 146	609 115	659 326	586 751	503 646	307 371	290 394	107 412	3 585 093
Direction Régional de l'Action Sociale	2 684	63 184	33 189	8 253	11 462	9 829	52 740	48 294	33 111	262 746
Service Régional Hydraulique		2 711	2 711	4 742	4 711	2 870	2 711	6 758	2 711	29 925
Travaux publics			3 704							3 704
Travaux publics lotissement			16 876			2 364				19 240
Total	**2 953 904**	**2 150 927**	**1 633 065**	**2 528 922**	**2 109 144**	**1 654 878**	**1 224 675**	**1 381 060**	**807 841**	**16 444 416**
Allocations budgétaires (en %)										
Charges	50,2	68,9	48,7	69,5	65,2	61,9	64,6	71,4	78,8	62,8

Communes Région										
Administration Général	0,0	1,7	2,6	2,0	1,6	3,4	2,0	1,8	1,4	1,7
Enseignement fondamental	9,1	2,7	7,9	1,9	4,6	3,3	3,7	1,8	2,1	4,5
Enseignement de base	40,1	0,0	0,0	0,0	0,0	0,1	0,1	0,0	0,0	7,2
Direction Régional Santé Publique	0,5	23,6	37,3	26,1	27,8	30,4	25,1	21,0	13,3	21,8
Direction Régional de l'Action Sociale	0,1	2,9	2,0	0,3	0,5	0,6	4,3	3,5	4,1	1,6
Service Régional Hydraulique	0,0	0,1	0,2	0,2	0,2	0,2	0,2	0,5	0,3	0,2
Travaux publics	0,0	0,0	0,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Travaux publics lotissement	0,0	0,0	1,0	0,0	0,0	0,1	0,0	0,0	0,0	0,1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Appendix 7: Distribution of Recurring Expenses by nature 2001-2006 - (in %)

	2001	2002	2003	2004	2005	2006
Bamako	11	11	11	7	8	7
Kayes	11	11	11	7	8	7
Koulikoro	11	11	11	7	8	8
Sikasso	11	11	11	13	15	13
Segou	11	11	11	7	14	22
Mopti	12	12	12	8	9	8
Tombouctou	11	11	11	7	8	7
Gao	11	11	11	7	21	19
Kidal	11	11	11	35	8	7
	100	**100**	**100**	**100**	**100**	**100**