

## CASE STUDY FOR THE 2006 HDR

### REACHING THE POOREST: RURAL WATER SUPPLY IN MOROCCO<sup>1</sup>

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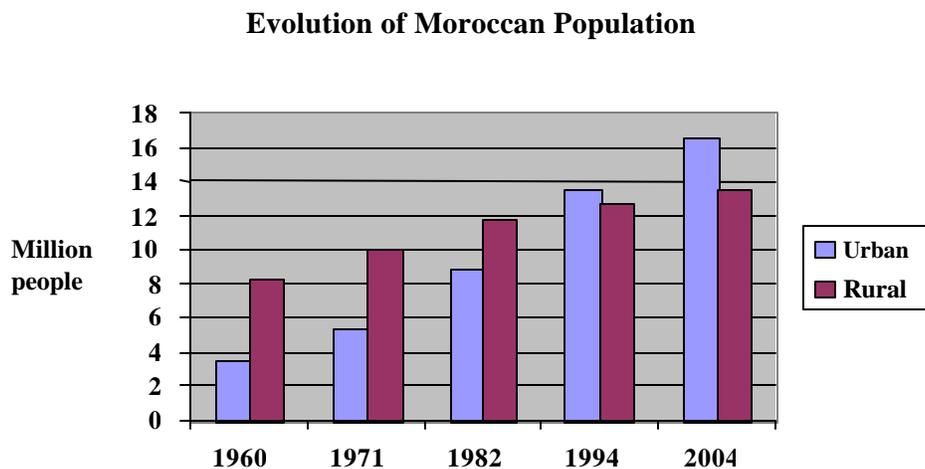
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#### Introduction

Morocco has a surface area of 447,000 km<sup>2</sup>, a population of 29.9 million in 2004, and an average population growth rate of 1.8% per annum over the 1990-1999 period, which decreased to 1.4% by 2004 (2.07% in urban areas versus 0.59% in rural areas). Its growth domestic product was 5.2% during the 2002-2003 period, and the per capita growth was 3.6% during the same period. The urban population of the country accounts for almost 16.5 millions, and it is expected to increase rapidly mainly due to the growing migration from the rural areas. This situation has created mounting pressure on the cities, which have not been able to cop with the demands in terms of services and infrastructural development.

Figure 1 shows the evolution of the Moroccan population, from predominantly rural in 1960 to mainly urban by 2004.



<sup>1</sup> The comments and support of Ms. Malika Belkoudssi, Regional Director, Tensift Region, ONEP, Morocco, for the preparation of this paper are gratefully acknowledged.

In terms of water supply, total of the urban population have access to drinking water. However, sanitation facilities are in the order of 58%, percentage which has not varied during the last decade<sup>2</sup>.

During the 1990s, after a decade of successful macroeconomic stabilization, progressive economic liberalization, and deregulation of the economy, a programme for private sector development was launched in Morocco. The background for this privatisation programme laid in the Privatisation Law, adopted in 1989, with a list of 113 firms to be privatised by the end of 1998. After a slow start, the programme was implemented in 1993, tallying 15.3 billion dirhams (DH) (of which 13.1 billion DH accrued to the government budget), with 52 EPICS (*établissements publics à caractère industriel et commercial*) and 125 of their subsidiaries privatised by 1998. The large number of enterprises which have been privatised have resulted in significant fiscal revenues (World Bank, 1999)<sup>3</sup>.

During this very active phase of privatisation (1993-1997), there was an average of 10 companies privatised per year. The country allocated significant resources, including the creation of a new Ministry dedicated to the task of privatisation, and received additional support from donors. By relying on consulting firms and investment banks, the Government leveraged these resources. Even so, the scope of the programme was ambitious in terms of the number of companies to be privatised on a case-by-case basis, and in terms of the modalities of privatisation (public tender, detailed evaluation, consideration of investment commitments, protection of jobs and employment-related benefits). This privatisation process provided the impetus for improved financial disclosure standards and regulatory reforms (Abt, 1999)<sup>4</sup>.

The Moroccan government started privatising the telecommunications sector in 1999. An international tender awarded a mobile telecommunications license in August 1999, challenging the dominance of the state-owned telecommunications monopoly, Maroc Telecom. This licensing process was conducted by an independent regulatory agency created in 1996, the Agence Nationale de Reglementation des Telecommunications (ANRT), which set out the criteria for evaluating the bids. A call for bids has been issued for the tobacco monopoly (Regie de Tabacs)<sup>5</sup> and the authorities are envisaging a further (15%) privatisation of Maroc Telecom (IMF, 2001)<sup>6</sup>.

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<sup>2</sup> World Development Indicators database, 2005, The World Bank, Washington.

<sup>3</sup> World Bank, 1999, Kingdom of Morocco Private Sector Assessment Update: Fulfilling The Promise of Private Sector-Led Growth. Private and Financial Sector Development Department, Middle East And North Africa Regions, Washington.

<sup>4</sup> Abt Associates Inc., 1999, Assessing the Impacts of Privatization: The Experience of Morocco. US Agency for International Development, Contract No. PCE-I-00-97-00003, #3

<sup>5</sup> The *régies* are funded by the Government or municipalities. They have the status of a Public enterprise but are run like private enterprises from the legal viewpoint. Although they have a certain degree of autonomy, they apply government regulations to procurement. The current trend in major operations involving the management of public services is towards the use of concessions. It should be pointed out that national regulations do not permit turnkey contracts and there is still resistance on the part of the Administration, which leads it to maintain a certain degree of control over major operations, thereby avoiding turning over a substantial part of its responsibility to the private sector (Gress, M., 2000, Country Procurement Assessment Report, Middle East and North Africa Region, World Bank).

<sup>6</sup> IMF, 2001, Morocco 2001, IMF Report 01/205, International Monetary Fund, Washington.

The support of the private sector development has been achieved through the development of legal and regulatory frameworks in the financial sector, the launching of on-the-job training programs, and the promotion of private participation in infrastructure. As a result, the private sector's contribution to GDP increased to 73% in 1997, from 64% in 1985, and its share in total exports went from 60% to 75% between 1985 and 1995. A tripartite consultative committee, *Comité de suivi du projet de développement du secteur privé*, comprising an equal number of representatives from the public and private sectors, was established in 1994 to advise on the content and implementation of a reform program aimed at developing and enhancing the competitiveness of the private sector. In addition, an *Observatoire de la compétitivité internationale de l'économie marocaine* was set up to provide information to the consultative *Comité de suivi* on the impact of the reforms. Both the *Comité de suivi* and the *Observatoire*, however, focus almost exclusively on the formal sector (World Bank, 1999).

Regarding the water sector, the concession for the public service for water supply and sanitation for Casablanca was granted by direct contract to Lyonnaise des Eaux for a 30-year period, without competitive bidding<sup>7</sup>. The explanation advanced to national operators to justify this direct contract was that no local enterprise or group of enterprises had the size or experience necessary to provide such a public service. In addition, the concession for the public service for water for Rabat was awarded by direct contract. However, the contract for the construction and use of the Port of Tangier, covering a 50-year period, was launched through international competitive bidding. Similarly, a concession was granted for the management of water and electricity in Tangier in 1999 following international competitive bidding (The World Bank, 1999).

During the first half of 2000, it was received an order for the district of Fes-Agdal to collect its household water (€2 million/year for 5 years) and a concession contract from the Agadir district to create three transfer centres, a composting plant and a landfill (€2.3 million per year for five years). In February 2001, a Vivendi-Water led consortium (Amendis) won two 25-year concessions to operate the water supply and sanitation and electricity distribution systems in the northern Moroccan towns of Tangiers and Tetouan. The consortium included Hydro-Quebec, Morocco largest private company ONA, and the Moroccan UAE company SOMED. The two concessions were the first to be awarded after an international tendering process. Under the terms of both concessions, the consortium will be responsible for the development, rehabilitation and upgrading of the water and electricity distribution and wastewater system infrastructure. The latter will be the priority focus for both areas as it is particularly important for their development. The consortium will also develop, improve and upgrade services by: developing infrastructure to keep pace with the demographic growth of both urban areas; extending the population's access to

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<sup>7</sup> The case of Casablanca is considered as successful due to the improvement in the service which includes 24-hours service, billing, sanitation, customer attention, etc. This perception prevails in spite of the fact that the price for the service of water increased 3 times during the first year. So far, 100% of the population in the city receives clean water. About 86% of the people in the urban areas have house connections, while there are standposts in the slums. According to Jamati (Jamati, C., Casablanca: An Example of Public-Private Partnership, Water Resources Development, Vol. 19, No. 2, 153-158, June 2003.) during 1998-2003 period, Lydec invested more than 220 million Euros in water supply, sanitation and electricity management in Casablanca, with almost half of the investment for sanitation. There has been an increase of more than 20% in terms of the number of population served with water and electricity, and a saving of 24 million m<sup>3</sup> per year.

services; reducing water leaks and energy losses; strengthening the quality and efficiency of service offered to the population; collecting and draining storm water; modernizing operation methods; and monitoring the quality of water distributed (PSIRU, 2001)<sup>8</sup>.

In the irrigation sector, in January 2002, the Government of Morocco engaged in the first ever experience of public-private partnership in the irrigation sector worldwide: two projects are to include the construction of a transmission pipeline and distribution network, with an estimated combined investment of more than US \$150 million. The first pilot project is located in the Guerdane perimeter (Souss Massa valley) and will provide an additional 45 M m<sup>3</sup> of water per year to citrus farmers affected by the overexploitation of the aquifer. It will be structured around a BOT scheme with significant public subsidies in order to keep tariffs affordable. The second pilot project is located in the Gharb region in a rain-fed agricultural area without underground water resources.

The Government is well aware of the challenges imposed on Morocco due to these privatisation processes. It has realised that the introduction of new procedures and new bidding documents, combined with the decentralized nature of procurement, requires the implementation of training programmes so that agents can learn the skills needed to discharge their contract administration responsibilities. Moreover, past experience has shown that the degree of transparency and efficiency in procurement varies from one administrative entity to the next. Training of officials in charge of procurement and contract administration at both the operational and control levels will consequently be extremely important in the short term, to familiarize them with the new legislation, and in the long term, to ensure an ongoing high level of expertise (Gress, 2000).

According to Zouggar (2003)<sup>9</sup>, one of the main constraints for the participation of the private sector in the country in general are that the legal and institutional frameworks still do not provide the full guarantees needed by the private investors to secure the protection of their interests. Legal instruments need to be modified to standardize bilateral investment agreements in terms of investment protection and to proceed with ongoing reforms in the legal system. The regulatory framework is inadequate and should be modified, since it is combined with complex and often unclear allocation of responsibilities. There is also insufficient competition, uneconomic tariffs and lack of coordination and expertise to design and implement better infrastructure policies. These shortcomings, however, have not prevented significant improvements in many infrastructural services in recent years in the country.

According to different studies (IMF, 2001; Gress, 2000; World Bank, 1999), it still remains necessary to incorporate many competitive and transparent procedures into the procurement institutional framework. In view of the fact that concessions fall outside the scope of application of the public procurement decree, the Ministry of Privatisation has assumed responsibility for drafting a new general law for concessions, based on administrative law contracts. It is expected that arbitration will be used and disputes will be referred to the administrative law tribunal. In addition, it is expected that standard bid documents will be prepared for concessions and

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<sup>8</sup> PSIRU, 2001, [www.psir.org](http://www.psir.org)

<sup>9</sup> Zouggar, M., Public-Private Partnership: Major Hindrances to the Private Sector's Participation in the Financing and Management of Public Infrastructure via Delegated Management, Water Resources Development, Vol. 19, No. 2, 123-129, June 2003.

possibly other documents that are more specifically tailored to the different sectors: drinking water, solid waste, treatment plants, etc. This law is seeking to build a certain level of partnership between the public and private sectors and favours the sharing and balancing of risks, in the interest of the legal soundness of contracts.

Privatisation of state-owned enterprises has been at the core of economic restructuring efforts across countries. Its proponents argue that private ownership will improve the financial health of the public sectors, always blamed of being benefited with special privileges and ill with mismanagement and corruption, and contribute to equitable economic growth. In reality, however, the understanding of the impacts of privatisation policies and processes remains too tenuous to guide programme management in any given political and institutional setting. In fact, one of the constraints is the lack of reliable information on company performances within and across countries. There are very few systematic evaluations of the impacts of privatisation from the political, economic, social, environmental, institutional or financial points of view, carried out either by the states, the private sector, or NGOs, mostly opponents of privatisation processes. However, any comprehensive attempt to assess the impacts of privatisation of different sectors needs to reflect the wide range of concerns on the topic which are basically social (employments, quality of the service, price, etc. (Abt, 1999).

In terms of service by the public sector, the Regies in general face financial and administrative problems, mainly due to the tight control of the Ministry of the Interior in the tariffs. For example, in the case of the Regies of Larache, the Director mentioned in discussions with the Third World Centre for Water Management (personal communication, 2002), that a main problem for the public agencies was the limited investment made due to financial and administrative constraints. It was also mentioned that the salaries of the personnel working in the private companies are higher than in the public sector companies. Hence, the difficulty to keep the most qualified staff if salaries are not to their expectations.

In the case of the Meknes Regie<sup>10</sup>, the losses in terms of water distribution in 2000 were 43 million dirhams and 10.5 million dirhams in 2001. For sanitation, the losses for 2001 were 2.5 million dirhams. In 2000, there was a provision for 33 million dirhams. It was estimated that for the end of the year 2002, there would be a profit of 8-9 million dirhams and the Regie would probably break even. However, for 2001, approximately 235 million dirhams were not recovered from the clients for both electricity and water. For the same year, there was a debt of about 202.7 million dirhams (the debt to ONE and other suppliers was in the range of 151.9 million dirhams; for water, the debt was about 28.3 million dirhams with ONEP<sup>11</sup> and other suppliers of water).

In another example, the Fes Regie<sup>12</sup>, the connections have been financed with a loan, partly from the World Bank, of \$12.8 million. The rest is financed by the Regie. From 1994-2001, with this

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<sup>10</sup> Meknes has a population of more than half a million people.

<sup>11</sup> ONEP is the Office National de l'Eau Potable.

<sup>12</sup> In Fes, about 93% of the population have connections, and approximately 7% of slums have public standposts. The losses in the system are approximately 40%. The networks are old (35% of the network –400 km-, is 40 years old, and 15% is about 70 years old), and there is no wastewater treatment at present. Lack of finances is considered as one of the main problems for the regie. A higher investment is necessary, as well as the increasing of tariffs and the improvement of networks. Communication strategies are also necessary to sensitise population to conserve water, which so far, is having some positive effect.

loan it was possible to develop 40,000 connections and eliminate 150 standposts. Many of the standpost left are mainly in the Medina and many of them are considered historical monuments.

### **Water supply in Rural Areas<sup>13</sup>**

The rural population in Morocco includes 13,428 million inhabitants living in 32,000 *douars*<sup>14</sup>. The population per *douar* ranges between 250 to 1,000 people, with an average of 420. There are also 1500 rural centres with a population of 3 million people and an average of 1,980 people per centre. The access to water in rural areas is not even and depends on the regions, the provinces and the municipalities. Overall, it is calculated that 61% of people have access to drinking water in rural areas, representing 8.2 million people living in 16,550 rural settlements.

A programme for water supply for rural areas (PAGER)<sup>15</sup> was established in 1995 with the objective to supply drinking water to 31,000 rural settlements and 11 million people, with an overall investment of 11 million dirhams. The General Directorate of Hydraulics was responsible for the distribution systems to provide water to 27,000 settlements, and ONEP was responsible for the regional infrastructure to provide water to 4,000 settlements.

Initially, the objectives of PAGER included: a) the provision of drinking water to 11 million people living in 31,000 settlements with an investment of 10 million dirhams; b) increase of water supply from 14% in 1994 in rural areas to 80% in 2010. By the end of 2004, however, the objectives were reevaluated. The targets were to supply drinking water to 8.2 million people living in 16,500 settlements, and increase the water supply from 14% in 1994 to 61% by the end of 2004.

The water projects developed under PAGER require the participation of the populations from the planning to the implementation of the projects. It is important to note that the population in the different rural settlements have been responsible for covering part of the initial subsidised expenses for the pump and the meter, as well as for its maintenance. Members of the Third World Centre for Water Management visited some rural settlements in the area of Sidi Kacem in 2002-2003. In the settlements visited, people had paid (some times not without initial disagreements) the initial agreed cost of the pump, and were covering its maintenance. One family was responsible for selling the water to the villagers who were willing to buy it. This family would be given the water at a certain price, and they would charge a smaller amount more in order to cover the maintenance costs. At the end of the month, the institution responsible would come to the settlement and would be paid by the water used. The family kept the pump scrupulously clean and the meter had not been broken. It was clear by the reactions and discussions of the nearby population that the demand for pumps in the individual settlements was higher than what could be provided.

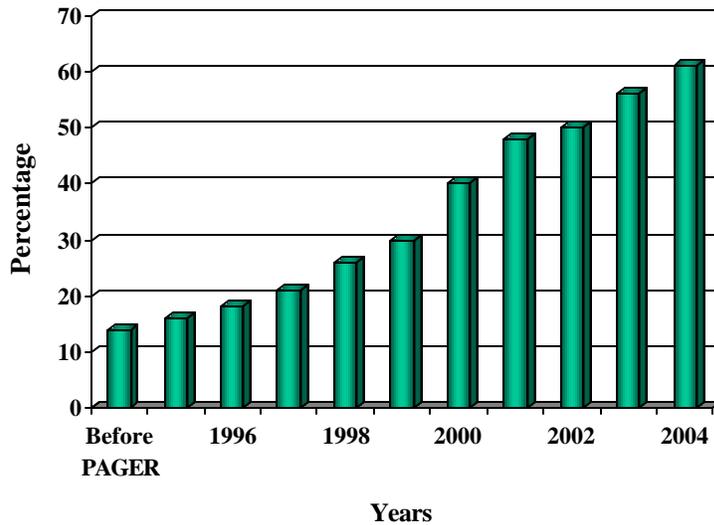
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<sup>13</sup> This section is based mainly in the following two documents: ONEP, Strategy ONEP pour la generalisation de l'access a l'eau potable aux populations rurales, Note de synthese. Maroc. Septembre 2005; and FAO/ONEP, Etude de diagnostic de l'AEP du monde rural au Maroc. Rapport de synthese. Maroc, UTF/MOR/023/MOR, Septembre 2005.

<sup>14</sup> *Douar* is a village with very low densities of population, some times, there can be 5 or 6 families.

<sup>15</sup> Programme d'Approvisionnement Groupé en Eau potable des populations rurales.

The following figure shows the improvements of drinking water supply service during 1995-2004 period under PAGER. As it can be observed, the access to drinking water has increased from 14% before PAGER, to 16% in 1995 and to 61% in 2004. The number of settlement with water supply has also increased, from less than 3,000 in 1995 to almost 8,000 in 2000, and more than 16,000 in 2004.



Water supply service to rural settlements, 1994-2004 period.

During the 1995-2001 period, eight small settlements with 22,000 people were supplied with drinking water. However, only during 2002-2004, the service increased to 30 small settlements and 80,000 people were served per year.

In 2001, during the 9<sup>th</sup> session of the High Council for Water and Climate, a series of reforms for the water sector were put in place. According to these reforms, ONEP would be responsible to supply drinking water to the rural areas in the country from January 2004. The objective was then to reach coverage of 90% of the rural settlements by 2007.

The responsibilities of ONEP include the planning and implementation of new water projects to achieve the goal of supplying 90% of people in rural areas with drinking water by 2007, as well as the coordination of the public and private local operators engaged in water supply to rural areas. So far, under the programme for small rural centres, ONEP has supplied drinking water to 750 peripheric settlements with a population of 450,000 people, and 44 small rural centres and main rural communities with a population of 222,000 inhabitants.

Regarding the infrastructure for drinking water supply for rural areas, ONEP considers that more than 70% of the rural population can receive drinking water with the already existing

infrastructure. These includes 5,500 pumps, 2320 sources of water, 26,000 km of pipes, 8,000 reservoirs, etc.

The private sector is involved in two pilot projects which provide drinking water to rural areas. One of them includes the supply of water to 17 *douars*, and the other one, the use of solar pumps for about 10 rural settlements.

FAO<sup>16</sup> carried a study with the objective to evaluate the sustainability of the water projects in rural areas, its usefulness and efficiency, as well as what have been their secondary impacts. This study included surveys at the community levels with the support of DGCL and the several provinces. The results of this study have been used to develop maps which indicate the status of access to drinking water in the rural areas at the national level by 2003.

In terms of satisfaction, FAO found out that the more the people were involved in any water project, the more satisfied they were with its results. Even then, there were comments in the sense that the bad service in terms of drinking water in rural areas include issues such as lack of investment (50%), lack of maintenance of the infrastructure (27%), lack of infrastructure (25%), old infrastructure (18%), bad water quality (8%), a deficient system (6%), lack of water (5%).

The demand for individual connections is very high: more than 470,000 individual connections were installed in 2004, and 92% of the population interviewed expressed their desire to have an individual connection.

According to FAO, PAGER has represented a very innovative management programme to involve the population who is benefited of the service, by making them responsible. At present, there are more than 5,500 users associations in the rural areas who are responsible for more than 40% of the local existing infrastructure.

While the implementation of appropriate drinking water programmes have resulted in the better quality of life of people living in rural areas, sanitation has not received the same attention. According to the FAO study, only 40% of the population have access to sanitation, percentage which varies according to the location and the socio-economic conditions. Most of the population have traditional latrines (30.7%), latrines with water (34.3%), septic tanks (2.8%), and common areas (2.5%).

This situation is not representative only of Morocco, but of the developing countries. While efforts are being made to provide the urban and rural population with drinking water, rural areas still lack sanitation infrastructure and management plans which could improve the living conditions of the populations.

Morocco has an important participation of private sector firms in different service sectors of the country, water supply, sanitation and electricity included for urban areas. However, for the provision of drinking water in the rural areas, it has been the public sector which, through its different institutions, has developed management plans which seem to be fulfilling the needs of the scattered rural population. Even though all processes ought to be improved with time

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<sup>16</sup> Op cit.

according with the changing conditions, the public sector in Morocco deserves recognition for its efforts to supply the rural population with the most basic right, that of clean water.