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## MEMORANDUM

TO : THE BOARD OF DIRECTORS

FROM : Vasantt JOGOO  
Ag. Secretary General

SUBJECT : MOROCCO : EVALUATION OF BANK ASSISTANCE TO THE  
PUBLIC UTILITIES SECTOR \*

Please find attached hereto, the above-mentioned document.

Attch.

Cc: The President

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**African Development Bank**



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**MOROCCO  
EVALUATION OF BANK ASSISTANCE TO  
THE PUBLIC UTILITIES SECTOR**

**OPERATIONS EVALUATION DEPARTMENT**

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## EQUIVALENTS AND UNITS OF MEASURE

### Currency Equivalents (May 2005) :

Monetary unit = Moroccan Dirham = MAD

1 UA	=	1.486622 USD
1 UA	=	1.20627 EURO
1 UA	=	3.2032 MAD

### Financial Year :

1 January - 31 December

### Units of Measure:

1 km	=	kilometer	=	1000 m
1 ha	=	hectare	=	10000 m <sup>2</sup>
1 m <sup>3</sup>	=	cubic metre		
1 m <sup>3</sup> /d	=	cubic metre/day		
1 GW	=	Gigawatt	=	1000 MW
1 GWh	=	Gigawatt-hour	=	1000 MWh
1 kV	=	Kilovolt	=	1000 volts (V)
1 kW	=	Kilowatt	=	1000 watts (W)
1 kWh	=	Kilowatt-hour	=	1000 Wh
1 MW	=	Megawatt	=	1000 kW
1 MWh	=	Megawatt hour	=	1000 kWh

**ACRONYMS AND ABBREVIATIONS :**

ADB	:	African Development Bank
ADF	:	African Development Fund
AFD	:	Agence Française de Développement
CSP	:	Country Strategy Paper
DGH	:	General Directorate of Water Resources
DWS	:	Drinking Water Supply
ERR	:	Economic Rate of Return
EU	:	European Union
FIRR	:	Financial Internal Rate of Return
GDP	:	Gross Domestic Product
HV	:	High Voltage
IDB	:	Islamic Development Bank
KfW	:	Kreditanstalt für Wiederaufbau
LV	:	Low Voltage
LYDEC	:	Lyonnaise Des Eaux de Casablanca
MATEE	:	Ministry of Regional Planning, Water and Environment
ONE	:	National Electricity Board
ONEP	:	National Drinking Water Board
OPEC	:	Organization of Petroleum Exporting Countries
ORMVA	:	Regional Agricultural Development Board
PAGER	:	Grouped Rural Drinking Water Supply Programme
PERG	:	Global Rural Electrification Programme
PNDES	:	National Economic and Social Development Plan
PNER	:	National Rural Electrification Programme
RADEEF	:	Fez Water and Electricity Distribution Board
TAF	:	Technical Assistance Fund
Water-SAP	:	Water Sector Adjustment Programme

## EXECUTIVE SUMMARY

### Study Objective and Procedure

1. This evaluation of Bank Group assistance to Morocco covers the period from 1996 to 2004. It covers lending activities as well as non-lending activities such as studies, assistance, policy dialogue, and portfolio review and aid coordination. It also considers sectoral, intersectoral and crosscutting aspects (poverty, gender, environment, regional integration and private-sector). Focus is on three areas : i) the assistance strategy as presented through an analysis of the CSP, analysis and consultancy services, and aid coordination; ii) relevance and quality-at-entry, efficacy, efficiency, institutional impact and sustainability of programmes and iii) responsibilities of the parties (Bank, Borrower, Donors, other Parties), viewed against the outcomes.

2. A three-phased approach was adopted, involving: i) data gathering at the Bank headquarters and interview with the Country-Economist ; ii) mission to Morocco to validate and complete a number of preliminary observations; and lastly, (iii) drafting of the report.

### Socio-Economic Context

1. Average annual growth rate in the 1996-2004 period was 3.6% and external debt was trimmed down to 35% of GDP (68% in 1995). However, this growth level did not support creation of an adequate number of jobs or poverty reduction. Unemployment dipped only slightly and was most prevalent in urban areas (24%) among the youth (33.7%). There has been an increase in poverty in the rural areas.

## **1 BANK PERFORMANCE**

1.1 The Bank failed to use technical assistance as a means to enhance policy dialogue and as a monitoring and information -gathering tool. Its interventions were made piecemeal and only at the behest of Morocco. The Bank is not really partnering the country in its development and is losing the comparative advantage to other Donors.

1.2 Paradoxically, the projects that had been duly identified and prepared were the same ones that took 3 to 4 times longer than scheduled to complete. The major causative factors for these delays were the difficult procedures, modification of the projects, and inadequacy of annual local counterpart funds and foreign exchange expenditures. These are issues beyond the Bank's control, although the latter's failure to provide proper supervision and disbursement delays exacerbated matters.

1.3 The Bank does not appear to fully grasp the needs and the potential of the Moroccan private sector and has not been able to develop the right financial products or establish a policy of proximity with the players. If this situation continues, the Bank may lose its position on the Moroccan market, with the country making fewer loan requests despite its huge public utilities requirements. The Bank must therefore anticipate and constitute a pipeline of potential projects for Morocco.

1.4 Since 1995, the Bank has been enabling Morocco to tackle its major sector challenges and increase service delivery on basic amenities. Post-2000, the Bank has integrated sector reforms and increased policy dialogue in conjunction with civil society to foster ownership of the programmes. Technical assistance is therefore satisfactory. (2.9).

## 2. LESSONS AND RECOMMENDATIONS

### 2.1 Lessons

#### 2.1.1 *Major sectoral trends : (cf : 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 6.)*

- i) The country did not accurately gauge its consumption of electricity and demand will outpace economic growth , making overinvestment a necessity.
- ii) Because of the difficulty in mobilising new water resources and the uneven distribution of the resource, demand will outstrip supply. The alternative will be to cut down system losses, recycle wastewater and desludge dams.

#### 2.1.2 *Tariffing and access to resources: (cf : 3.3.2 to 3.4.4 ; Annex 6.)*

- i) Demand for water and electricity from low income earners is showing a tendency to dwindle because of the tariffs and the cost of mains connection.

#### 2.1.3 *Absorption of loans and disbursements : (cf : 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 3.)*

- i) More than any other factors that could be blamed on the Bank, institutional compartmentalisation, red tape and difficulties in raising local counterpart funds are the factors mostly responsible for slowing down project progress.
- ii) The slow rate of loan absorption also affects other donors. The Bank disbursed 67% of amounts approved in the sector (compared to 57.5% between 1972 and 1992).
- iii) The Bank has still not introduced NICT in its management of disbursements, in contrast to other donors which use them to monitor disbursements in real time.

#### 2.1.4 *Sectoral Technical Assistance : (cf : 3.4.6 ; 3.4.7 ; 4.1.3 ; 6.2.2 )*

- i) Mobilisation of non-lending instruments is poor (barely 0.13% of sector commitments), a fact that does little to enhance the Bank's image as a partner in development.

#### 2.1.5 *Bank Dialogue and Communication : (cf : 5.4.1 ; 5.4.2 )*

- i) The new participatory approach to policy dialogue confirmed that the Bank chose the appropriate interventions and is being used to initiate the process of encouraging ownership of projects and programmes.



2.1.6 *Coordination of Donors and Cofinancing : (cf: 4.3.1 to 4.3.4 ; Annex 3.)*

- i) Aid coordination in Morocco is carried out by two institutions, which makes it imperative for donors to better coordinate their own aid efforts.
- iii) Between 1996 and 2000, cofinanciers contributed only 5% for water and 34% towards electricity. The Bank only needed to take part in two major projects for those figures to rise to 27% and 47% respectively.

**2.2 Recommendations to the Bank**

2.2.1 *Major sectoral trends : (cf: 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 6.)*

- i) The Bank should envisage providing technical assistance to help manage the demand for water, recycling, reducing water loss and desludging dams.
- ii) The Bank should make sanitation and wastewater retreatment minimum conditions, and set consumption performance ratios.

2.2.2 *Tariffing and access to resources: (cf.: 3.3.2 to 3.4.4 ; Annex 6.)*

- i) The Bank should, in future projects, avoid including conditions that retard implementation of projects and/or are inconsistent with Bank policy on improving the poor's access to basic resources.

2.2.3 *Absorption of Loans and Disbursements : (cf: 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 3.)*

- i) The Bank should seek to reduce disbursement delays to the barest minimum and introduce NICT to enable real time monitoring of its disbursement management.

2.2.4 *Sectoral Technical Assistance : (cf: 3.4.6 ; 3.4.7 ; 4.1.3 ; 6.2.2)*

- i) The Bank should review the types of support to executing agencies to improve assistance performance and to avoid losing ground to other donors who use support as a comparative advantage. It should also use technical assistance as a tool for strengthening dialogue.
- ii) The Bank should assist the country to accurately assess companies' production costs and optimise the efficacy of investments on public utilities.
- iii) The Bank should establish databases on the normative costs of conducting and systematising identification missions to serve as the basis for appraisals.

2.2.5 *Bank Dialogue and Communication : (cf : 5.4.1 ; 5.4.2)*

- i) The Bank should continue to use the participatory approach introduced in 2000 and seek greater participation of civil society so as to strengthen programme ownership.
- ii) The Bank should establish close contact with employer organisations and with Moroccan or foreign institutions active in the SME sector.

2.2.6 *Coordination of Donors and Cofinancing : (cf : 4.3.1 to 4.3.4 ; Annex 3.)*

- i) The Bank should take more steps to strengthen joint actions with other donors in order to coordinate their interventions.
- ii) The Bank should draw up a portfolio of potential bankable projects and work with the country to identify other donors to cofinance them.

**2.3 Recommendations to the Country**

2.3.1 *Major sectoral trends : (cf : 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 5.)*

- i) Revamp water systems to cut down excessive water losses and resume information and sensitization activities on the rational use of resources.
- ii) Catch up in the area of wastewater retreatment.

2.3.2 *Tariffing and access to resources: (cf : 3.3.2 to 3.4.4 ; Annex 5.)*

- i) Review tariffing, to give disadvantaged sections of the population access to the water supply system and a level of consumption adequate to their basic needs.
- ii) Conduct studies on costs and introduce increased productivity as an objective in contractors' performance contracts.

2.3.3 *Absorption of loans and disbursements : (cf : 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 1.)*

- i) Streamline allocations for local currency counterpart funding to meet the needs of projects to avoid delays and reduce financial expenses.
- ii) Strengthen institutional coherence to avoid slowing down projects.

## **1. CONTEXT**

### **1.1 Study Objective and Procedure**

1.1.1 The aim of this study is to evaluate the Bank Group's assistance to Morocco in the public utilities sector from 1996-2004 and also to assess its impact on the country's development. Thus, an evaluation is made of the Bank's strategy with regard to the CSP, and the outcomes and impacts of the Bank's interventions are also measured. The evaluation is based on the following criteria: relevance and quality-at-entry, efficacy, efficiency; institutional development impact; sustainability, and lastly, performance of the Bank and the Borrower. The evaluation covers lending and non-lending activities (studies, assistance, policy dialogue, portfolio review and aid coordination.) It also includes sectoral aspects, inter-sectoral and crosscutting aspects (poverty, gender, environment, regional integration, and private-sector).

1.1.2 Following information gathering at the Bank's Temporary Relocation Agency in Tunis and discussions with members of the country operations team, a mission to Morocco was able to: (i) gather data and information that could help to assess the outcomes of Bank assistance ; (ii) discuss with the authorities on the relevance, efficacy, efficiency, socio-economic and institutional development impact, and the sustainability of the Bank's programme of assistance. ; (iii) validate and complete a number of preliminary observations on the outcome of assistance provided by the Bank; and, lastly, (iv) draw necessary conclusions and lessons and make recommendations that could guide the Bank as to the best assistance strategy for Morocco. The provisional report was prepared in Tunis and submitted for the consideration of the OPEV internal working group whose remarks are reflected in this final report.

### **1.2 Country Socio-Economic Context**

To give the general background to Bank assistance, it is important to recall that in the mid-80s, Morocco instituted economic and structural reform that enabled it to redress the major macroeconomic and financial balances, liberalize trade, relax its exchange rate regime and control inflation. Over the 1996-2004 period, average annual growth rate was 3.6% and external debt was maintained at 35% of GDP (68% in 1995), while reducing in absolute value (19 to 14 billion dollars). Yet, despite these generally satisfactory macroeconomic performance indicators, the growth of the Moroccan economy did not produce the ripple effect that could spur job creation and reduce poverty. Unemployment dropped only slightly and affected mostly the urban population (24%) and the youth (33.7%), while poverty grew in the rural areas.

### **1.3 Sector Development Constraints and Strategies**

#### **Electricity Sub-Sector**

1.3.1 Morocco has very few energy resources and depends on external sources for over 90% of its energy needs. To promote economic and social development, the country had pursued a robust energy policy which aimed, among other things, to satisfy its energy needs by reducing the country's dependence on imported fuel as much as possible. It should be recalled that by the end of the 80s, imports of petroleum accounted for 60% of all mining

products, including phosphate. In the electricity sector, with Bank assistance, this policy placed priority on mobilising primary energy resources such as hydroelectric power, coal and renewable energies.

1.3.2 This energy policy was based on a strategy which sought to: i) open electricity generation to the private sector and grant concessions; ii) use coal, gas and local primary energy sources; iii) develop rural electrification and promote control of the demand for electricity; iv) establish tariffing that would promote the competitiveness of the products ; and lastly, iv) strengthen international interconnections of electric grids to guarantee supply to the country.

1.3.3 Morocco's efforts at liberalisation brought about serious unrest as from 1994 when the country sought to introduce a free open market in order to attract private investors and provide its citizens with reliable, affordable service. Concessions were granted at that time to 4 of the 11 water and electricity distribution boards (*cf. Annex 5.*). Making use of the hydroelectric potential, the country was able to generate 6% to 10% of electricity depending on the season; while the use of dual cycle fuel conversion (coal and fuel oil) in certain thermal power plants enabled the country to take advantage of fluctuations in the prices of oil and coal.

1.3.4 Morocco has decided to obtain additional electricity interconnection with Spain and Algeria to meet peak loads and prevent power shortage. It is developing the use of new and renewable energy (NRE), having introduced a 52 MW wind farm in 2000. Similar farms (potential 200MW) are either being built or are in the pipeline. Morocco is also working on a 180 MW thermal solar plant project. The Government has slashed fuel tax to bring down the cost of electricity for industrial uses (-17%) and for farming (-10%) in a bid to improve the performance in these two areas.

1.3.5 The percentage of the rural areas with electricity increased from 17% in 1994 to 50% in 2001 and the government's objective is to raise that figure to 80% by 2007. In 1995, Morocco had 39,000 villages without electricity and, between 1996 and 2003, ONE connected about 12,400 villages and is aiming to connect another 16,500 villages by 2007.

#### Water and Sanitation Sub-Sector

1.3.6 As early as in 1967, Morocco set itself the target of a million irrigated hectares by 2000. This necessitated a huge dam-building programme. However, this was the origin of the competition that has sprung up between water for drinking purposes and for industrial use on the one hand, and water for irrigation on the other. The construction of 97 dams makes available 15 billion m<sup>3</sup> per annum, but the potential that can still be mobilised is not more than 5 to 10% of this volume. The Water Law of 1995 made a number of major water policy changes as part of efforts to institute rational water resource management. Most strikingly, these changes seek to introduce decentralised management of water as well as establish regulatory mechanisms needed for efficient water management.

1.3.7 The target for the rural sector was to improve water coverage from 14% in 1995 to 92% in 2007. However, having attained 50% coverage in 2002, there are still wide regional disparities in terms of both availability and price, which, depending on the region, can be anything from one to three times. (*cf. Annex 5.*). Urban demand for drinking water has grown significantly, from 742 million m<sup>3</sup> in 1995 to 840 million m<sup>3</sup> in 2002. However, water

consumption per user dropped between 1990 and 2002 for the customers of the Drinking Water Board and wastewater discharges are causing serious environmental damage (to the tune of 1.2% of GDP annually, according to the World Bank).

1.3.8 The increased demand for water continues to be difficult to sustain in the absence of arbitration between the different uses on one hand, and between drinking water supply and sanitation and retreatment. Not only is this uneven division of resources and the environmental repercussions likely to hasten the time it takes for the resource to run out but untreated sewage water will likely also lead to an ecological disaster. Already, the demand for water is more than the resources in certain watersheds can cope with, and Morocco is now thinking of building transfer stations.

## **2. ASSESSMENT OF BANK ASSISTANCE STRATEGY**

### **2.1. Bank Policy in the Public utilities Sector**

2.1.1 In 1993, the Bank prepared an Energy Sector Policy Paper following a study it conducted on the energy sector in Africa. It also established the African Energy Programme (AEP). The Bank's orientations for the sub-sector were to : i) encourage the drawing up of energy master plans ; ii) promote and support an integrated approach that takes due account of the supply of and the demand for energy; iii) assist countries to build their operational capacities for project planning and implementation. The Tariff Policy Framework Paper that followed would also set the condition for the profitability of loans sought by countries.

2.1.2 The Bank considers the water sub-sector as one of the main instruments for reducing poverty, given its close interrelation with sanitation, agriculture, energy, health and education. Provision of drinking water is a basic service and is central to the Bank's policy as entrenched in the Water and Sanitation Policy Paper which it prepared in the late 1990s, and which serves as a guide for the financing of investments in the sub-sector. Since 2000, the Bank's policy in the area of Integrated Water Resources Management also includes the principle that water is to be considered an economic, social and environmental good, and it also embraces the "polluter pays" philosophy.

2.1.3 The period from 1996-1998 was one in which the Bank implemented a strategy of supporting Morocco in its development of the public utilities sector to help it to become a competitive economy. The two instruments of choice within this strategy were consultation and cofinancing. Assistance to public utilities was therefore targeted at projects which could satisfy demand and strengthen the development of private enterprise in the sector.

2.1.4 The CSP for 2000-2002 had raised the point that focus had not been put on sanitation at the same time as the development efforts were being centred on improving drinking water distribution and that this would impact negatively on health and the environment. The Bank therefore decided to support reforms and finance the Water Sector Structural Adjustment Programme. The coherence of Bank policy in the public utilities sector, notably support to sub-sector reform, is highly satisfactory (4).

### **2.2 Relevance and Coherence of Bank Assistance Strategies :**

2.2.1 Morocco does not publish any sectoral analyses that might have served to guide and helped to improve the orientation of the Bank's CSP. Thus, it is not easy to grasp the

determinants and needs of this sector which requires heavy investments that have a long economic lifespan. The Bank did not adopt a strategy of proposing projects or offers of financial products and has confined itself to carrying out an approximate assessment of the degree of relevance of the projects submitted for funding.

2.2.2 Moreover, because it has neither information about nor close contact with the country, the Bank did not have the opportunity to study whether it would be beneficial to it to join in financing other projects in the sector. Taking the electricity sub-sector alone, several other projects might have been of interest to the Bank because they are fully in keeping with its Energy Sector Policy. The ADB therefore did not have the opportunity to contribute to the protection of the environment ('Improvement of the Djorf Coal Power Station Project'), financed by IDB and EIB); to the development of renewable energy sources 'Tangiers 140 MW/Wind Farm Project', funded by the EIB, AFD, and KfW, and the 'Essaouira Wind Farm Project / 60 MW', financed by KfW and Japan). The ADB was also not approached during fund mobilisation for the hydroelectric installations, the ('Tanafrit Complex Project'), which KfW is financing, or the project being cofinanced by FADES and the Kuwait Fund (the 'Dchar El Oued Complex Project'). ADB would have had an opportunity to help to reduce Morocco's energy bill and would also have played a part in developing other non-polluting primary energy forms. The only project for which Morocco is seeking the ADB's participation is for a 55 MW thermal-solar power station, for which the EIB financed the study, and GEF has provided a grant of 50 million dollars.

2.2.3 All the projects for which the Bank has been approached are consistent with its strategy and were also coherent with the strategies adopted by Morocco. The country was striving to address its challenges, at a time when it could barely cover the demand for electricity and drinking water, and lacked sufficient means of generation, transmission and distribution. With the structures financed by the Bank, access to electricity in rural communities grew from about 15% in 1994 to almost 50% in 2001. The Bank strategy has therefore helped the country immensely to attain its sector goals and overcome its challenges. The ongoing projects merely underscore the relevance of this highly satisfactory strategy (4).

### **3. EVALUATION OF LENDING OPERATIONS**

#### **3.1 Lending Operations : portfolio composition and status**

3.1.1 The portfolio of active projects between 1996 and 2000 consisted of a dam and five drinking water supply projects. There were five projects in the electricity sub-sector, including one study (TAF), a hydroelectric dam, and three projects concerning the transport network (two would later be cancelled). Loans for the six water installations were equal in value to the loans for the electricity sub-sector (177 M.UA).

3.1.2 There are currently two active projects in the sector : the Water-SAP Project and the electricity interconnection project. The loan amount for Water-SAP (184 M.UA) alone is higher than the loans for the six structures financed in the water sub-sector (163 M.UA) and completed before 2000. The amount disbursed for these six projects represent two thirds of the amounts approved, whereas, for the electricity sub-sector, the three projects carried out were disbursed in full. (*Cf. Annex 3.*)

3.1.3 The structure of the portfolio is well balanced since it covers both generation and transmission as well as distribution, to which is added a capital project for the adjustment of the water sub-sector. This structure is therefore satisfactory. (4).

### **3.2 Relevance and Quality-at-Entry**

3.2.1 Loan requests for projects submitted for financing are not always accompanied by feasibility studies since such studies are generally conducted only after funding is secured. The Bank does not systematically carry out project identification and preparation missions (except for the El-Hachef Dam and very quickly for the Tangiers DWS Project and ONEP-5). This project cycle phase is therefore weak. For example, for the ONEP-5 project(60 M.UC) only 1.5 staff-weeks were spent on identification. Estimated to last 30 months, the project eventually took 108 months to complete.

3.2.2 For electricity, no identification mission was undertaken for either the Matmata Dam Project (50 M.UC) or the transmission network extensions (40 M.UC).Their construction time doubled.

3.2.3 Thus, because of the absence or inadequacy of preparatory missions, the Bank was unable to improve the quality at entry of the projects it financed because no database on costs and normative period was available. However, the mere absence of identification missions cannot be solely responsible for the delays, because even in the case of projects for which identification had taken place, disbursements of committed funds were not only poor but such projects took twice as long or three times as long to complete (9 years instead of 2.5 for ONEP-5 ; 12 years instead of 3 years for the Tangiers DWS Project).

3.2.4 This shows that the appraisal studies should also have taken account of the limited capacities of the Executing Agencies, and the difficulties in mobilising local counterpart funds since these may also be the reasons for the slippages on deadlines and, often, for modifications of project components, which have to be tailored to the budgetary allocations.

3.2.5 Sector projects are capital intensive and have a long economic lifespan (30 years or more for dams and high tension networks) and they require in-depth studies (identification, preparation, pre-feasibility). Many projects ran into problems but the Moroccan authorities believe that : i) ADB, in its capacity as a development bank, should have done more to help them to assess and execute the projects ; ii) the Bank should have played the role of development partner at every step in the project life cycle and iii) since the initial assessment was undertaken jointly, responsibility for any slippages in the execution period should be shared by the Bank and Morocco.

3.2.6 Thus, viewed in the context of the mid-90s when the projects were implemented, and the urgent formidable challenges before Morocco at the time, despite the insufficient preparation of the projects, which affected the quality at entry, the delays in project completion period were due mostly to factors over which the Bank had no control. Through these projects, Morocco was able to attain its set quantitative objectives and the relevance of the lending operations therefore remains satisfactory (2.6).

### 3.3 Efficacy of operations

#### Water and Sanitation

3.3.1 There has been a significant increase in the demand for water in urban areas, from 742 million m<sup>3</sup> in 1995 to 840 million m<sup>3</sup> in 2002. In rural areas, drinking water access rate improved from 14% in 1995 to 50% in 2002 and the goal is to reach 92% by 2007. Nevertheless, consumption per head is tending to decrease and the non-treatment of sewage water is causing serious environmental damage.

3.3.2 Because water rates vary depending on the region (there is no price equalization as for electricity), low income earners are forced to limit their consumption to within the social tranche thresholds. In the city outskirts, households which cannot afford to pay for mains connection buy water from vendors for anything between 40 and 200 MAD/m<sup>3</sup>, whereas the highest that households with water mains connection pay for pumped water is 15 MAD (Oujda).

3.3.3 Because of their low incomes, poor families are not able to pay to be connected to the mains supply. In an ONEP 2002 survey conducted among households without mains connection, almost 80% gave the cost of connection as their main reason for not being connected (4000 MAD for connection to the water mains and 2000 MAD for the electricity connection).

3.3.4 Demand for water is dwindling, a phenomenon common to both the urban and rural areas, and the main reason for this is the peoples' purchasing power. The number of users with mains connection in cities has grown from 1,822,000 in 1995 to 2,760,000 in 2002 (*cf. Annex 6.*), an increase of 51% for the period, whereas production of water increased by only 13% (742 million m<sup>3</sup> in 1995 to 840 million m<sup>3</sup> in 2002). All the projects experienced delays in their construction time. Bank assistance helped to extend the drinking water systems but the effectiveness of assistance in the sub-sector is unsatisfactory (2.1).

#### Electricity Sub-sector

3.3.5 Bank-financed investments (*cf. Annex 6.*) such as the strengthening of the transmission network (573 km in 225 kV; 684 km in 60 kV and 509 km in 22 kV) and the Matmata Hydroelectric Dam (240 MW and a drainage system in 225 kV) helped to concretise the Global Rural Electrification Programme (PERG). ONE was able to build downstream 16,000 kilometre medium voltage network and 40,000 kilometre low voltage grid, using additional funds that it secured. With its production and transmission capacities thus enhanced, ONE could also pursue its electrification of peri-urban areas that are not supplied by the utility boards and to supply power to social facilities like schools and dispensaries. On the distribution side, ONE was able to continue the PERG (approved in 1995). Out of the 39,000 villages which did not yet have electricity, ONE supplied power to 12,400 villages between 1996 and 2003, nearly 1 million rural households. With the programme, electricity access rate increased from 17% in 1994 to nearly 50% in 2001. According to an ONEP survey, 59% of families that are not yet connected to the drinking water mains are connected to the electricity grid because the cost of electricity connection is still relatively affordable.



3.3.6 The Bank was highly instrumental in increasing the hydroelectric generation potential, strengthening the power transmission network and international interconnection, and lastly, instituting a less fragile energy production system in Morocco, one that had been characterised by the dominant use of thermal energy and where power generation was concentrated in one place. The gross installed capacity of the dams increased from 927 MW in 1993 to 1167 MW in 1998, with the use of three generators financed by the ADB. Under the Network extension project, coupled with electricity supply to 9 cities, the transmission network improved as well, increasing in length by 573 km for the 225 kV, 684 km for the 60 kV and 509 km for the 22 kV. Net called-up power increased by 30% between 1998 and 2003 and the length of the low tension network increased 2.5 times. (*cf. Annex 6.*)

3.3.7 Notwithstanding the delays in the projects financed under this sub-sector, which occurred for reasons beyond the Bank's control, and the financial constraints of mains connection for the very poor, (Morocco as yet has no loans for this purpose) the considerable development in the sector and the level of public connection constitute proof that the sectoral objectives have been achieved and that the efficacy of lending operations continues to be satisfactory (3).

### **3.4 Efficiency of Operations**

3.4.1 The considerable slippage on implementation inevitably affects costs and the rate of return, even if this is not made apparent in the PCRs, because of the recurrent modifications of the project components. For the DWS projects, it generally takes 24 to 30 months to get from approval to loan effectiveness stage. For electricity this period lasts between 9 and 21 months. The delays start from here, even before commencement of construction works. Often they are the result of defective engineering designs (ONEP-6), late procurement procedures (the Fez Water Board blocked the procurements for the pumping station) and frequent amendments to the project configuration (virtually all the projects). Another important factor that causes delay concerns expenditure in local currency, when these are higher than the allocations that the Government has earmarked for the sector.

3.4.2 Additionally, calculation of ERR fails to take account of external factors and these rates are therefore overrated (e.g. not taking into account the damage that will be caused by sewage water in DWS projects) or underrated (e.g. not factoring in the gains from the new fields that will be irrigated by a dam or the fact that the new hydroelectric dam that has been built will reduce pollution). In the absence of cost accounting, financial viability is calculated without taking into account the real costs of operation (it is based on simple ratios provided by the Borrower) or the losses on the transmission or distribution systems, whereas, to take just one example, the average output from a water distribution system is 66% (figure that has remained unchanged in twenty years). The assessed FIRR for some projects was reduced by half for some projects (ONEP-5) or fell to zero (ONEP-6), while the FIRR for yet others increased even though they took four times longer to construct (DWS-Tangiers).

3.4.3 The productivity gains of companies were mobilised in order to bring down production costs. ONE provides an example: when it reduced its staff strength by 9% (9,625 staff in 2001 as against 10,561 in 1995), put new production methods into service and PERG was implemented, its productivity ratios were reviewed upwards. : i) the number of subscribers per employee increased by 91 % (108 to 206 subscribers/agent) ; and ii) and the MWh per employee increased by 49% (940 to 1,398 MWh/staff).

3.4.4 In spite of this, and even after electricity tariffs were reduced, ONE's rates are still higher than in other countries in the Maghreb. By way of illustration, tariffs for medium voltage had been slashed four times since 1997 (by 5% in 1997 ; 6% in 1998 ; 17% in 2000 ; 6.2% in 2004) but were still 1.7 times higher than in Tunisia (0.088\$US/kWh in Morocco compared to 0.052\$US/kWh in Tunisia, in 2000). The tariff for households was not reduced, and the price of one kWh is still 1.5 times higher than in Tunisia or Libya.

3.4.5 A survey on the competitiveness of enterprises (FACS Survey) conducted by the World Bank shows that the electricity sub-sector would perform better than it did in 1998, even if two firms out of three experience power cuts (less frequent in Casablanca and Fez than in Rabat and Settat) and that service quality differs from one region to another. Nevertheless, even with the lower tariffs, companies still spend more than 5% of the value of their annual sales on energy, more than in India, the Philippines, Indonesia or Thailand. This comparison highlights the loss of competitive advantage for great users of energy, such as the textile industry.

3.4.6 It is also important to point out that demand forecasts are calculated using a base scenario where economic growth is about 4%/annum between 2000 and 2015. These forecasts give an average load growth of 6% per year between 2000 and 2015, indicating that Morocco would need an additional 2200 MW of installed power before 2015. The demand for electricity would therefore be highly elastic in relation to GDP, and its growth will outstrip economic growth. This would entail an increase in energy intensity to GDP ( more and more electricity will need to be consumed to produce one unit of GDP), whereas Morocco has been implementing energy control programmes since the 90s. Short of speedily implementing an SAP-Energy project, overinvestment on production and transmission will be necessary.

3.4.7 Thus, because of insufficient preparation and supervision of projects, the set objectives have been achieved at the expense of efficiency of investments. The overall efficiency is therefore unsatisfactory (2.4).

### **3.5 Institutional Development Impact**

3.5.1 Because so many different actors were involved, the investments made came up against compartmentalisation in the different institutions. In the water sub-sector, there was so little coordination between the actors that the authorities interviewed during the appraisal mission admitted that it was only with the advent of the Water-SAP that all the institutions and operators involved were able to meet and agree that their focus should be on achieving integrated water resources management, the country having become aware that the situation threatened its development.

3.5.2 Among the institutional incoherences that affected the performance of projects before 2000 were : i) the inappropriate legislative framework. For example, for the El-Hachef Dam, Morocco, unlike the Bank, did not at the time ask for an environmental study, ; ii) the existence of entities whose legal status is not clear as, for example, the Water Users Associations which manage the rural water stations ; iii) the absence of land development plans (the pipeline for the Tangiers DWS is blocked by the Highway Authority) ; or iv) the fact that ONEP had no say in sanitation matters, this being the remit of the Ministry of Interior.

3.5.3 However, the electricity sub-sector is currently being reorganised. The aim is to modernise the civil service and gradually liberalise the electricity market. As for the water sub-sector, 1995 proved a turning point, with the enactment of the Law on Water which introduced integrated water resources management. The necessary regulations have however not yet been adopted. Even with the reforms, old habits are dying hard and drinking water continues to be given priority over the retreatment of waste water (less than 7% is retreated). A law passed in 2001 has now vested ONEP with responsibility for sanitation.

3.5.4 In 2001, a regulatory body was established (the High Council for Water and Climate), followed by an interministerial body known as the Interministerial Committee for Water, then a Ministry of Regional Planning, Water and Environment was created. It is made up of three ministerial departments: (Regional Planning, Water, and Environment). The Ministry's representatives interviewed during the appraisal mission hoped that ADB would continue to demand impact studies (a law has been passed to this effect) and finance environmental projects.

3.5.5 ONEP and ONE, both widely acknowledged to have the requisite technical expertise, are in the middle of reorganisation intended to improve economic management of investments. Gradually, the Executing Agencies are improving their programme monitoring systems. Since 2000, civil society has been more actively involved in policy dialogue with the Bank. The institutional context is improving gradually, driven by the Donors (rather than as a result of internal synergy), and the donors themselves have made efforts to coordinate the aid they provide. The combined assistance of the ADB, World Bank, European Union and other Donors was the trigger and the decisive factor that encouraged Morocco to forge a new institutional framework designed to improve the results obtained from development aid. All that remains is to remove the incoherences in the financial system, which delay disbursements and spread payments over periods that are too long and financially damaging for Morocco. Even though it is difficult to determine the exact contribution of the Bank to these institutional impacts, its contribution was substantial and is therefore satisfactory (3).

### **3.6 Sustainability of Operations**

3.6.1 In the water sub-sector, the Bank failed to make it a loan condition that ratios should be set linking the capacities of drinking water facilities to the capacities for sanitation, since, logically, both should go together. Loans were granted under conditions where there was pressure to provide drinking water (with no action taken to check overconsumption in the farm sector and electricity and no strategy for efficient management of the project cycle. The sustainability of the positive project outcomes was at stake.

3.6.2 These choices of which areas to allocate resources to not only reduced the efficiency of assistance provided, considering the massive amount of water that is wasted in the pipes, but they also cast doubts over the sustainability of projects because of the volume of wastewater discharged into the environment. For every 2 m<sup>3</sup> produced, 1 m<sup>3</sup> is lost and the water that is used is almost totally discharged as untreated wastewater. Over the 1993-2002 period, sanitation accounted for only 13% of investments on drinking water. The current situation is one of a serious shortage of water purification equipment. There are 63 treatment plants in the whole of Morocco and only 15 of these are functional.

3.6.3 On the environmental aspect, while it may be premature to talk of a looming situation of irreversibility, according to MATEE, the degradation caused by wastewater translates into a loss of more than 1% of GDP annually (1.2% according to the World Bank), and this affects the effective economic growth rate. The Authorities will probably try to reverse this situation, especially as the objective of attracting 10 million tourists per year will no doubt lead to a new influx of rural dwellers into the city, where they will swell the ranks of people living in slum conditions without sanitation, increasing pollution of the coastline and destroying the tourism potential and keeping tourists away.

3.6.4 Even if Bank-financed investments can be considered to be technically sound thanks to the proven competence of the sub-sector operators (ONE, ONEP, boards and concessionaires), they will be economically sustainable only if sufficient budgetary resources are constantly available for the stakeholders to use in maintaining them. It is also likely that, with the improvement of the institutional framework, the State, as regulator, will interfere to ensure the policy of rational management of its facilities whose management it has delegated.

3.6.5 Notwithstanding that the situation in the electricity sub-sector is better than in the water sector, the Bank has financed DWS projects without having systematically introduced sanitation and treatment of wastewater as an integral component of such projects (resulting in excessively high rates of return on such projects) and without making this a loan condition. Despite the delay in this area, Morocco has now adopted an approach that requires a sanitation component to be built into every new project. This commitment is probably the best guarantee that the projects will be sustainable, if it is properly applied in the field and if exogenous factors like oil prices, social stability, exchange rate, etc.) do not undermine this clear orientation towards sustainable development. Sustainability can therefore be considered as probable (2.8).

### **3.7 Crosscutting Aspects**

#### Private Sector :

3.7.1 The number and scale of projects financed by the Bank in the water sub-sector has encouraged ONEP to outsource certain functions by assisting qualified staff to establish their own service provider companies to work for the Board, and guaranteeing them orders over 2 to 3 years. These ideas helped to prune the number of ONEP staff and seem to have been successful because consumers can be connected four times faster.

3.7.2 For the construction of structures, supplies and works for ADB financed projects have often been provided by Moroccan or mixed firms, and Morocco now has a core of qualified enterprises. However, the Bank for its part, did not seek to identify the financial needs of existing SME, much less assess the opportunities for financial products suitable for the Moroccan environment and which might spawn the creation of new enterprises in the sector.

3.7.3 Moreover, the Bank did not think it fit to monitor the progress of the “Wholly Indigenous Firms Programmes” put in place by Morocco, which the EU is financing under the MEDA Programme. Had it done so, the Bank would have been in a position to detect the sectors, branches and firms with growth potential, strong capacities to absorb employment, innovation and production of high value-added. The Bank failed to monitor developments in the business climate in Morocco and did not establish dialogue with the interesting and interested players such as banks, Chambers of Industry and Employers Associations.

3.7.4 Thus, the Bank did not introduce any innovation in its activities neither did it use all the instruments at its disposal, such as technical assistance to occupy the field. It also did not innovate in its approach to meeting the needs of the private sector. The IDB, for example, financed a development study on an industrial estate with the possibility that the technological agglomeration would be the future site of SME-SMIs that would obtain IDB loans. For these reasons, Bank performance is considered unsatisfactory. (2).

Gender and Poverty :

3.7.5 Project supervision and completion reports were scanty about the contribution that Bank assistance under the project made towards changing the situation and the role of women. Surveys have shown that in the countryside, people who cannot afford the cost of mains household connection continue to obtain water from public standpipes or buy water from vendors who charge them higher than the official water rate. Similarly, families with extremely low incomes, who cannot afford connection to the power grid use candles or kerosene lamps. For those groups of families who are connected to a common meter, they are penalised because they pay the high tariff since the total consumption shown on the meter automatically places them outside the social group, even if their individual consumption is low.

3.7.6 Even though more and more people are being helped to gain connections to water and electricity networks through dedicated programmes like PAGER for water and PERG for electricity, consumers are being charged rates lower than the normal rate for individual connections and for consumption per unit, which is falling.

3.7.7 Having intervened more in the upstream sector (electricity generation and transmission) and urban water production and distribution, the Bank has almost lost sight of the major concerns downstream which focus on the link between assistance and giving the abjectly poor access to basic services, ensuring a better life for rural women. Consequently, assistance in relation to assistance is unsatisfactory. (2).

Environment :

3.7.8 The single most important negative impact of drinking water supply projects is the increase in the amount of waste water discharge, a cause of rapid environmental degradation and a vector for water-borne diseases (WBD). Waste water discharges continue to pollute water courses and coastal waters because very little investment goes into purification, despite the 1995 Law on Water and the setting up of the National Council for the Environment (NCR). A World Bank study indicates that 1.2 GDP points are lost annually a financial impact of the pollution of water. Even for the El Hachef Dam project, only 26% of the budget for the environmental study was used up. Under the ONEP-6 Project, the two retreatment systems which were to be rehabilitated were unexpectedly cancelled by the Borrower.

3.7.9 In the electricity sub-sector, the transmission extension project significantly reduced pollution country-wide as it limited the number of small thermal stations and diesel generators (used in the centres pending the time the Bank-financed project connects them to the grid). The same applies in the case of the Matmata Hydroelectric project which avoided building thermal plants which usually use petroleum or coal, both well-known pollutants.

3.7.10 Following the Natural Resources Management Project financed by the ADB, which was completed in 1999 (partly with a ATF grant), a National Environmental Action Plan (NEAP) was prepared and has just been completed. The performance here is therefore satisfactory (2.6).

*Regional Development :*

3.7.11 Morocco's electricity grid will be strengthened by the second interconnection with Algeria (2 225 kV lines are already in service with Algeria and 1 400 Kv submarine cable connects Morocco to Spain). These interconnections will ensure energy security in the country and are currently at maximum transit capacity, meaning that they have to be strengthened. This project is also in line with the NEPAD regional project to strengthen electricity interconnection in North African countries.

3.7.12 Thus, these various interconnections are contributing indirectly to the development of regional economies. With this project, which is consistent with the NEPAD and MAU regional objectives, the Bank is making its own contribution to satisfying Morocco's commitment's to cooperation in North Africa. The Bank's performance in this area is highly satisfactory (4).

#### **4. EVALUATION OF NON-LENDING ASSISTANCE**

##### **4.1. Economic and Sectoral Work**

4.1.1 The Bank financed a study on hydroelectric micro-power stations (TAF), which has already led to the building of three integrated micro-stations under the Rural Electrification Programme (REP). The CSP for 2000-2002 noted that the Bank needs to increase its financing of studies and/or institutional support in the sectors that it considers to be strategic, including the public utilities sector. The Bank had had very little impact on the ground and became involved in the formulation of the Water-SAP only after its discussions with the EU, yet, reform is one of its priorities.

4.1.2 The Bank continues to prepare its strategy papers based on studies conducted by other institution actors. Thus, the input for the CSP 2000-2002 was the information gathered during the preparation mission to Morocco but these had to be completed using studies undertaken by the World Bank, International Monetary Fund and UNDP. Similarly, the CSP 2003-2005 was based on the reports published by international institutions, notably the IMF, World Bank and the European Union in addition to the Government's programme.

4.1.3 Mobilisation of non-loan instruments (economic and sectoral studies) was below the level of loan-financed projects (0.13% of sector commitments). The Bank was thus not able to maintain proximity relations with Morocco, a major client under the ADB Window. The performance here is therefore rated as unsatisfactory (2).

##### **4.2 Policy Dialogue**

4.2.1 Until 2000, seminars organised around the CSP were for government organisations only. Consultations involving civil society at large took place for the first time as part of preparation of the CSP 2000-2002. A number of workshops were organised in 2000 and 2002. The Bank had therefore just adopted the participatory approach in preparing the

CSP, and this resulted in net information gains for all the stakeholders who learnt about the Bank's policy and the way in which it prepares its strategies. The participants also asked that such consultations not only become regular events, but that they should, in addition, be started right from the project design phase. These seminars have therefore provided the Bank with the possibility to gradually apply the process of promoting ownership of its assistance by the country.

4.2.2 The new participatory approach was continued for the CSP 2003-2005 and confirmed that the Bank was on the right track regarding its choice of areas of interventions. It also highlighted shortcomings, notably with respect to the financing of sector and thematic studies. Portfolio reviews also have helped to present the situation of projects at specific times and have thus been instrumental in maintaining a healthy Bank portfolio. On the recommendation of these PRR, the Bank in March 1998 organised a seminar in Morocco on its rules and procedures, and it organised yet another such seminar in Rabat in 2002. A staff of ONEP actually attended a course at the Bank headquarters. Although these policy dialogue strengthening measures have not yet been applied to the public utilities sector, progress can be considered as being satisfactory (3).

### **4.3. Aid Coordination, Cofinancing, and Resource Mobilisation**

4.3.1 Thus far, Morocco appears to have no interest in Sectoral Round Tables and consultative Groups. Coordination of external aid, hitherto the remit of the Ministry responsible for the Economy and Finance, now takes place at two levels. For example, cooperation with the ADB is within the purview of the Ministry of Finance (Directorate of Budget) while cooperation with the World Bank is the responsibility of the International Economic Relations Department, under the Office of the Prime Minister. This bipolarisation may turn out to be problematic when it comes to harmonising, coordinating and ensuring coherence of the activities of the various donors. Donors therefore need to coordinate their assistance to Morocco themselves to ensure optimum results.

4.3.2 Relations between the ADB and World Bank have improved tremendously since the signing of the Memorandum of Understanding on Strategic Partnership in 2002. A joint appraisal was organised, together with AFD in 2002, for the electricity interconnection project. Coordination with EIB and AFD was initiated during the project appraisal and has since been going on, indirectly, through the ONE. The EIB, though, had already performed its own project appraisal mission before the joint Bank and AFDF mission. It was agreed that contact with EIB and AFD would be maintained during project implementation through joint supervision missions. However, the supervision report by the Bank made no mention of any further meetings with EIB and AFD.

4.3.3 It is still as yet difficult to measure the gains in performance that derive from having multiple donors intervening on the same project. Despite the contact established between the Bank and the other donors, each seems to continue with its own strategy and project supervision style. The PCR for cofinanced projects completed before 2002 show that virtually the only action that donors effected together was the pooling of financial resources as very few other actions were undertaken jointly.

4.3.4 As for the quantitative aspect of cofinancing, for ongoing projects between 1996 and 2000, other donors in the water sub-sector financed 5% whereas the figure for the electricity sub-sector was up to 34%. Through the Bank's cofinancing policy, these figures

are now 27% and 47% (*cf. Annex 3.*) For the two ongoing projects (PAS-Eau and Electricity Interconnection). The cofinancing strategy adopted by the Bank is yielding positive results and is therefore satisfactory (3).

## **5. PERFORMANCE OF PARTNERS**

### **5.1 Borrower and Executing Agencies**

5.1.1 The two main Borrowers in the sector (ONE and ONEP) have amassed wide experience and a high level of technical management. According to the PCR for the electricity projects, these Boards, which are also Project Executing Agencies, possess the efficient supervision structures when it comes to site supervision and operation of facilities. Borrower performance is therefore appreciable in terms of the level of project preparation and execution. In terms of technical and institutional capacity, ONE and ONEP provided excellent technical management of the projects; coordination, monitoring and control of the entire supply and services aspects was hitch-free. These Executing Agencies were able to identify any problems that cropped up and find appropriate solutions. Their internal management even showed a significant improvement of their productivity ratios. (*cf. paragraph 3.4.3.*)

5.1.2 However, despite the noted improved performance of these two firms, various components of all the projects were subject to modifications and they all took longer to implement. Thus, factors outside the control of the operators (institutional compartmentalisation, bureaucratic red tape, and budgetary constraints in terms of ready availability of local counterpart funding ) seem to have played a greater role in the progress of projects than the other factors that could be blamed on the Bank (such as disbursement delays). No anomalies were noted with regard to compliance with loan conditions. By contrast, one of the greatest problems for these agencies was to fulfil the conditions for loan effectiveness and raise the local currency component. This is a clear confirmation that slippages in project implementation were caused by factors beyond the control of the Agencies.

5.1.3 With regard to sectoral planning, it is necessary to point out the shortcomings that have led to the situation where the country's electricity consumption is growing faster than production, aggravating the country's dependence rate. Demand for electricity is forecast to grow 1.5 times faster than economic growth between 2000 and 2015. This gap, due to strong elasticity of consumption in relation to GDP will require installation of nearly 2200 MW between now and 2015, despite all the demand control programmes that Morocco implemented in the mid 90s.

5.1.4 The low rate of absorption of loans granted to Morocco is not confined to Bank-financed projects (67% of amounts approved for active projects between 1996 and 2000 (*cf. Annex 3.*), it is however an exceedingly high rate considering that, between 1972 and 1992 it was only 57.5% (*cf. EPCP 1994-1996*). According to a report by the «Groupe Thématique Eau Maroc» in 2003, for projects funded by the EU or the Member States, just the one condition that calls for a review tariffs alone occasioned considerable delays, while disbursements are always few and far between. Thus, between 1992 and 2003, AFD in the water sub-sector disbursed only 57% of its committed funds while KfW disbursed only 50%.



5.1.5 The conclusion that should be drawn is that the Executing Agencies have gradually mastered Bank procedures. However, factors over which they have no control cause delays on projects and affect the overall performance. Apart from this stumbling block, the result of the institutional framework for the finance sector, and which reduces the APD absorptive capacity, Morocco's performance is satisfactory overall (3).

## **5.2 The Bank**

5.2.1 As far as the implementation of the projects goes, preparation missions were not conducted for the majority of them, which raises doubts about the reliability of the appraisals. Supervisions lasted between 0.2 and 0.5 staff-weeks for water and 2 staff-weeks for electricity and were often for several projects at a time. The number of missions was fewer than stipulated in the Bank Manual of Operations (at least one mission per year) and they included no socio-economist or environmentalist which means that the crosscutting aspects did not receive the necessary attention.

5.2.2 The Bank was often not sufficiently firm with the Borrower. This explains the frequent amendments to the project configurations. The Borrower went as far as reducing the environmental aspect to the barest and cancelled the sanitation components. On another note, the Bank is still not using NICT to track disbursements as certain other donors do via the internet. Thus, the Executing Agency cannot easily track disbursements in real time.

5.2.3 Nonetheless, it is pertinent to note that in some cases, the extensive expertise of Bank officials was crucial to resolving a number of technical problems caused by the shortcomings in the studies. These officers often brought their expertise to bear, which helped to resolve problems encountered during project implementation. The El-Hachef Dam Project is a case in point. Some of the problems that cropped up with the project engineering designs could have been avoided if the Bank had been more involved in their preparation.

5.2.4 For cofinanced projects, coordination with other partners was poor before 2000 and the Bank had made no real effort to establish direct and permanent contact with the other donors working on the same project. This situation has changed dramatically since the two big projects were launched after 2000.

5.2.5 The Bank did not make a strong effort to make the Borrower comply with the programming for the sub-sector. There was delay in preparing the intersectoral impact studies due to slippages on implementation deadline. Bank performance was satisfactory overall, but future close monitoring of the following aspects is required: the imbalance between supply of water and treatment of waste water; the low system output and the gap between demand and economic growth.

## **5.3 Other Donors and Co-financiers**

5.3.1 During the period in review, three projects were completed under cofinancing arrangements (one for buyer and supplier credits which the Moroccan party negotiated with foreign commercial banks). For the hydroelectric dam, the IDB effected disbursement regularly in contrast to OPEC which disbursed funds 3 to 4 months late. On the projects in the electricity sub-sector, the PCR points to the difficulty in assessing the performance of the other donors due to an absence of data on their relations with the Borrower during the project

implementation... Thus, for the Matmata hydroelectric dam, for which Italy and Germany also provided as significant amounts in bilateral funds as the Bank, there was no coordination or consultation whatsoever between them and the Bank during project implementation..

5.3.2 The two projects currently being implemented are being cofinanced by the EU, EIB and AFD. For the Water-SAP, the Bank held consultation meetings with EU representatives and those of the World Bank. Donor coordination is scheduled to continue, notably during the mid-term review and supervision missions, and through information exchange. Since 2000, the Bank and these Donors have been building their dialogue capacities with the Moroccan Government. For the electricity grid interconnection project, ONE deals directly with the three Donors separately (ADB, BEI, and AFD) but circulates documents prepared by each of them. The Bank appraised the project with AFD in 2002, but the 2004 supervision report does not mention any contact between the Bank and EIB or AFD. The performance of the donors and cofinanciers in terms of their cooperation with the Bank is improving gradually. Before 2000 it was unsatisfactory (2.5).

## **5.4 Other Stakeholders**

5.4.1 Civil society organisations were involved in the CSP for the first time in 2000, during the first participatory dialogue seminar to which actors outside official institutions were invited. Despite the great number of associations and NGOs in Morocco, use of the participatory approach in the definition, monitoring and ensuring sustainability of projects has not yet spread to the public utilities sector. Civil society is involved mostly in water distribution in the rural area and in information and sensitization campaigns organised using associations and NGOs as communication relays.

5.4.2 In terms of establishing contact with the private sector, the Bank has not provided for any communication instrument or planned any ‘Open Days’ for company executive officers. Indeed, the Bank has been so remiss in this connection that even the Confederation of Moroccan Enterprises (CGEM) has stated that it is ignorant of the terms for obtaining ADB credits, although these CEOs have themselves not bothered to contact the Bank. The new participatory approach has confirmed that the Bank has chosen the right areas for its intervention, but it should seek to draw a wider spectrum of actors to ensure their appropriation of ADB-financed projects. Up until 2000, the role of other stakeholders in improving the performance of assistance was unsatisfactory (2).

## **6. OVERALL ASSESSMENT**

### **6.1 Counterfactual Analysis**

6.1.1 The indirect effects of Bank assistance towards the public utilities sector are numerous and multisectoral even though they are not easy to quantify. The direct impacts of dams and water and electricity networks will improve the ability to satisfy economic and social needs. The government’s rural electrification and water supply objectives would not have been feasible if the facilities financed by the Bank had not been built.

6.1.2 The ongoing institutional development would have been much longer in coming without pressure from donors like the Bank, and this would have limited the success of the assistance provided. Morocco would not have been able to cut back its carbon dioxide emissions without the Matmata Hydroelectric Dam and the international interconnection, as a result of which Morocco can now produce clean energy and also derive its supply directly from the less polluting electricity power stations outside the country.

6.1.3 Millions of the country's citizens would not have had access to water and electricity for their domestic comfort, information (radio and television) and education for their children (light). For the women, being able to watch educational programmes on television has been a cultural benefit. Cost- savings from the ability to keep perishable foods in the refrigerator is another boost, as are the hygiene gains from having access to pumped water. Without these essential services, which the Bank has contributed to providing, artisanal activities that raise income levels would have been impossible. The same is true of schools and health centres which now have the minimum emergency equipment, such as stores for perishable drugs or incubators for premature babies.

6.1.5 The intersectoral effects of having basic services and roads are numerous and visible in terms of the possibility of stimulating arts and crafts and the manufacturing industry. Businesses can now set up outside cities and have access to production inputs at more affordable cost (cheaper land and labour, tax relief, etc.). This deconcentration will help to reduce poverty in the rural area.

6.1.6 Reviewing these non-quantifiable impacts, there being no statistics, shows that Bank assistance has had potentially positive effects on economic activity, on the standard of living and on poverty reduction. Given sectoral interactions, this counterfactual analysis can clearly be properly measured by doing a global analysis and bearing in mind the assistance of all other donors.

## **6.2 Overall Assessment of Bank Assistance**

6.2.1 Since 1995, the Bank had decided to accord greater importance to improving the quality, development impact and competitiveness of operations in Medium Income Countries. Up until the end of the 90s, its strategy had been to finance projects that the country ranked as a priority project. The Bank therefore helped Morocco to address its major sector challenges and achieve the connection levels for water and electricity. For the public utilities sector, a major factor in wealth and job creation, the Bank thereafter decided to diversify its products by integrating sector reform.

6.2.2 The sectoral policy dialogue was reinforced through more frequent contacts with the Country and, since 2000, the CSPs have also been strengthened using the participatory approach. A clearer definition of projects has emerged, heralding the beginning of the process of initiating actors into assuming ownership of projects and programmes financed by the Bank. Apart from the technical assistance that is integral to the projects financed, the Bank has neglected to use sub-sectoral technical assistance, and this has affected its image as a development partner. Such technical assistance would have helped to achieve sub-sector goals without straying too far from the normative indicators of profitability, costs and deadlines. The Bank therefore failed to adopt a global, coherent approach that would have enabled it to use technical assistance as a monitoring tool for gathering information on the business climate in Morocco, thus as a means of enhancing the policy dialogue. The result was that Bank interventions were made haphazardly and only at the behest of Morocco. By not seeking to build a comparative advantage around its partnering of the country in its development strategy, the Bank appears to be losing ground to the other Donors.

6.2.3 The Bank also shows a weakness in correctly analysing the sector, its determinants and its intersectoral links. The fact that the projects were not prepared has also meant that their quality-at-entry could not be improved. As for project implementation, paradoxically, those projects that took 3 or 4 times longer to carry out than initially estimated at appraisal are the ones for which identification and preparation missions were conducted. Procedural hitches, modifications to the project configurations, transfer of components under financing provided by other donors and, lastly, the inadequacy of local counterpart funds compared to annual expenditure requirements were the obvious causes of delays on the projects. Clearly, therefore, the main reasons for these delays were outside the Bank's control, even though insufficient Bank supervision and disbursement delays may have exacerbated the situation.

6.2.4 Aside from the old lines of credit; the Bank did not finance projects that involved the private sector. It appears not to have sufficient knowledge of the needs and potential of the Moroccan private sector and this may affect its image as a development bank. The Bank must therefore remove obstacles to the development of new financial products and strengthen its technical assistance. It should be borne in mind that if the current situation continues, the Bank will lose its place on the Moroccan market as the country will stop asking for loans even though Morocco has major requirements in the public utilities sector. The Bank will need to anticipate the country's needs, take greater steps to identify opportunities in order to be able to constitute a pipeline of potential investments.

6.2.5 The Bank's sector strategy is not underpinned by in-depth studies and targeted and continuous dialogue that would have afforded an accurate knowledge of Morocco's needs and its financial absorption capacities, especially in this highly capital-intensive sector where structures have a very long economic life cycle. Its future actions must aim to nurture relations with the country's authorities and maintain permanent dialogue with the principal 'Decision makers', the major donors and civil society. It is worth noting that more often than any other country under the ADB Window, Morocco has made representations to the Bank (27% of total loan approvals per country) and that it is an excellent client. The country is very likely to make loan requests in the very near future because of its enormous requirements in the public utilities sector and particularly because it needs to catch up on water retreatment, and address an increasingly growing demand for electricity. The Bank should therefore accord special importance to Morocco and study the main issues that constrain its development and should also engage in permanent dialogue with the country.

**Performance of sectoral assistance is satisfactory overall (2.9).**

## **7. LESSONS AND RECOMMENDATIONS**

### **7.1 Lessons**

*7.1.1 Major sectoral trends : (cf : 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 6.)*

- i) The country did not accurately gauge its consumption of electricity and demand will outpace economic growth , making overinvestment a necessity.

- ii) Because of the difficulty in mobilising new water resources and the uneven distribution of the resource, demand will outstrip supply. The alternative will be to cut down system losses, recycle wastewater and desludge dams.

7.1.2 *Tariffing and access to resources : (cf : 3.3.2 to 3.4.4 ; Annex 6.)*

- i) Demand for water and electricity from low income earners is showing a tendency to dwindle because of the tariffs and the cost of mains connection.

7.1.3 *Absorption of Loans and Disbursements : (cf : 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 3.)*

- i) More than any other factors that could be blamed on the Bank, institutional compartmentalisation, red tape and difficulties in raising local counterpart funds are the factors mostly responsible for slowing down project progress.
- ii) The slow rate of loan absorption also affects other donors. The Bank disbursed 67% of amounts approved in the sector (compared to 57.5% between 1972 and 1992).
- iii) The Bank has still not introduced NICT in its management of disbursements, in contrast to other donors which use them to monitor disbursements in real time.

7.1.4 *Sectoral Technical Assistance : (cf : 3.4.6 ; 3.4.7 ; 4.1.3 ; 6.2.2 )*

- i) Mobilisation of non-lending instruments is slow (barely 0.13% of sector commitments), a fact that does little to enhance the Bank's image as a partner in development.

7.1.5 *Bank Dialogue and Communication : (cf : 5.4.1 ; 5.4.2 )*

- i) The new participatory approach to policy dialogue confirmed that the Bank chose the appropriate interventions and is being used to initiate the process of encouraging ownership of projects and programmes.

7.1.6 *Coordination of Donors and Cofinancing : (cf : 4.3.1 to 4.3.4 ; Annex 3.)*

- i) Aid coordination in Morocco is carried out by two institutions, which makes it imperative for donors to better coordinate their own aid efforts.
- iii) Between 1996 and 2000, cofinanciers contributed only 5% for water and 34% towards electricity; the Bank only needed to take part in two major projects for those figures to rise to 27% and 47% respectively.

## **7.2 Recommendations to the Bank**

### *7.2.1 Major sectoral trends : (cf: 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 6.)*

- i) The Bank should envisage providing technical assistance to help manage the demand for water, recycling, reducing water loss and desludging dams.
- ii) The Bank should make sanitation and wastewater retreatment minimum conditions, and set consumption performance ratios.

### *7.2.2 Tariffing and access to resources: (cf: 3.3.2 to 3.4.4 ; Annex 6.)*

- i) The Bank should in future projects avoid including conditions that retard implementation of projects and/or are inconsistent with Bank policy on improving the poor's access to basic resources.

### *7.2.3 Absorption of Loans and Disbursements : (cf: 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 3.)*

- i) The Bank should seek to reduce disbursement delays to the barest minimum and introduce NICT to enable real time monitoring of its disbursement management.

### *7.2.4 Sectoral Technical Assistance : (cf: 3.4.6 ; 3.4.7 ; 4.1.3 ; 6.2.2)*

- i) The Bank should review the types of support to executing agencies to improve assistance performance and to avoid losing ground to other donors who use support as a comparative advantage. It should also use technical assistance as a tool for strengthening dialogue.
- ii) The Bank should assist the country to accurately assess companies' production costs and optimise the efficacy of investments in public utilities.
- iii) The Bank should establish databases on the normative costs of conducting and systematising identification missions to serve as the basis for appraisals.

### *7.2.5 Bank Dialogue and Communication: (cf: 5.4.1 ; 5.4.2)*

- i) The Bank should continue to use the participatory approach introduced in 2000 and seek greater participation of civil society so as to strengthen programme ownership.
- ii) The Bank should establish close contact with employer organisations and with Moroccan or foreign institutions active in the SME sector.

7.2.6 *Coordination of Donors and Cofinancing : (cf : 4.3.1 to 4.3.4 ; Annex 3.)*

- i) The Bank should take more steps to strengthen joint actions with other donors in order to coordinate their interventions.
- ii) The Bank should draw up a portfolio of potential bankable projects and work with the country to identify other donors to cofinance them.

**7.3 Recommendations for the Country**

7.3.1 *Major sectoral trends : (cf : 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 5.)*

- i) Revamp water systems to cut down excessive water losses and resume information and sensitization activities on the rational use of resources.
- ii) Catch up in the area of wastewater retreatment.

7.3.2 *Tariffing and access to resources : (cf : 3.3.2 to 3.4.4 ; Annex 5.)*

- i) Review tariffing, to give disadvantaged sections of the population access to the water supply system and a level of consumption adequate to their basic needs.
- ii) Conduct studies on costs and introduce increased productivity as an objective in contractors' performance contracts.

7.3.3 *Absorption of loans and disbursements : (cf : 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 1.)*

- i) Streamline allocations for local currency counterpart funding to meet the needs of projects to avoid delays and reduce financial expenses.
- ii) Strengthen institutional coherence to avoid slowing down projects.

**Annex 1**

**MOROCCO : ECONOMIC AND FINANCIAL INDICATORS (1995 - 2004)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
G.D.P (constant prices)	113197	127027	124197	133729	133622	134900	143395	147970	155725	161246
change in %	-6.6	12.2	-2.2	7.7	-0.1	1	6.3	3.2	5.2	3.5
G.D.P. (current prices)	281702	319340	318342	344005	345594	354208	383184	397782	418655	441773
change in %	0.9	13.4	-0.3	8.1	0.5	2.5	8.2	3.8	5.2	5.5
IMPORTS	85494	84612	90711	98676	105931	122527	124718	130409	136070	156296
EXPORTS	58672	60013	67057	68608	73617	78827	80667	86389	83887	86365
TRADE BALANCE	-26821	-24599	-23654	-30068	-32314	-43700	-44051	-44020	-52183	-69931
EXTERNAL DEBT OUTSTANDING (in MAD)	191932	188141	186070	179380	177538	170899	163103	142317	126024	115230
External outstanding debt of the Treasury / GDP	47.3	41	41	36.6	35.9	33.5	28.9	23.3	18.9	15.9



## RATING BY PROJECT AND BY SECTOR

(Ratings : 5 ; Highly Satisfactory : 4 ; Satisfactory : 3 ; Unsatisfactory : 2 ; Highly Unsatisfactory : 1)

### 1. Rating Water and Sanitation Sub-sector (Completed Projects)

Criteria	Observations and Conclusions	Rating
<b>1. Relevance / Quality at Entry</b>		<b>2.6</b>
<i>DWS TANGIERS Project</i>	Highly relevant project that should solve the DWS problems in the city of Tangiers. One identification mission and 2 preparation missions.	3
<i>ONEP-V Project</i>	Relevant project designed to supply 11 cities with drinking water. Short identification mission. No Bank preparation mission.	2.7
<i>ONEP-VI Project</i>	Relevant project intended to supply 9 cities with drinking water. No Bank identification or preparation mission. Unsatisfactory technical studies.	2.4
<i>EL-HACHEFDAM Project</i>	Highly relevant project for the supply of water to Tangiers. No Bank identification, preparation mission.	2.2
<b>2. Efficacy of Operations</b>		<b>2.1</b>
<i>DWS TANGERS Project</i>	Tangiers had to be supplied by sea tankers because of the delay in completing the project. Several components were amended or cancelled. Procurement notices issued 6 months late and selection of a winning contractor took between 18 and 25 months.	2
<i>ONEP-V Project</i>	Fez pumping station was delayed by the Water Authority. Oujda was replaced by 3 other cities. Over dimensioning of installations and the saturation point was extended by 20 years. Supervision missions were too short (average 0.2 staff-weeks).	2
<i>ONEP-VI Project</i>	Project was delayed because of modifications. The rehabilitation of 2 wastewater retreatment stations was cancelled, as was one sanitation study. The supervision missions were too short. (on average 0.2 staff-weeks).	2
<i>Project BARRAGE EL-HACHEF</i>	Supervision missions were too short (average 0.2 staff-weeks) and insufficient	2.5
<b>3. Efficiency of operations</b>		<b>2.2</b>
<i>DWS TANGIERS Project</i>	Effective 21 months after the project was approved. Unduly long extension of the project implementation period (12 years instead of 3 as expected). The demand for water was overestimated. The mission of the Consultant Engineer was terminated before the end of the project. The ERR and IRR increased by about 3 points compared to the initial estimate.	2.5
<i>ONEP-V Project</i>	The project took 9 years instead of 2.5 as estimated. The ERR and IRR dropped by 10 and 6.5 points respectively from the initial estimates. The mission of the consultant engineer was stopped 1.5 years before project completion.	2
<i>ONEP-VI Project</i>	The project lasted 6 years instead of 4 years as scheduled. Demand forecasts were overestimated. ERR and IRR went from 14.5% to 0o%.	2
<i>EL-HACHEFDAM Project</i>	There was a one-point increase over the estimated 15% .The IRR is not available. There were slippages in the project implementation.	2.5
<b>4. Institutional impact</b>	A review of the sector institutional organisation was carried out, up to the watershed's Regulatory institutions were established for the sub-sector.	<b>3</b>
<b>5. Sustainability</b>	There were grave insufficiencies in terms of retreatment of wastewater. Operating conditions at the facilities are satisfactory, given ONEP's experience. Impact assessments became mandatory later on. ONEP has been given responsibility for sanitation.	<b>2.5</b>
<b>OVERALL ASSESSMENT</b>		<b>2.7</b>

## 2.Ratings for Electricity Sub-Sector (Completed projects)

Criteria	Observations and Conclusions	Rating
<b>1. Relevance / Quality-at-Entry</b>		<b>2.5</b>
<i>Network Extension Project</i>	A highly relevant project given the need to transmit electricity to the consumption centres in the country. The Bank conducted no identification or preparation mission.	2.5
<i>MATMATA DAM Project</i>	Very relevant project because of the increased demand for electricity in the country and Morocco's dependence on external sources of power. No Bank identification or preparation mission was performed.	2.5
<b>2. Efficacy of operations</b>		<b>3</b>
<i>Network Extension Project</i>	Project was carried out to international technical standards. There was insufficient supervision.	3
<i>MATMATA DAM Project</i>	Project was carried out to international technical standards. Insufficient supervision.	3
<b>3. Efficiency of operations</b>		<b>2.7</b>
<i>Mains Extension Project</i>	The project was delayed by 24 months. The activity report mentions an 8 point gain in the ERR over the initial estimate.	2.8
<i>MATMATA DAM Project</i>	Project duration was 9 years instead of 5 estimated. The first contractor selected for civil works was not up to scratch. According to the activity report, the ERR reached 39% and 18 points over the initial estimate. IRR was said to have dropped 3 points. Real operating costs are 30% higher than the estimate at appraisal. The delay in the plant commissioning also affected viability.	2.5
<b>4. Institutional Impact</b>	A vast reorganisation programme has been put in place at ONE to bring it in line with the new context of electricity market liberalisation. The Energy Ministry has been reorganised.	<b>3</b>
<b>5. Sustainability</b>	ONE has massive experience of operating water facilities. National production is less than consumption, hence the need for import electricity from Spain with the attendant risk during the blackout period.	<b>3</b>
<b>4. OVERALL ASSESSMENT</b>		<b>3</b>

## 3.Overall Rating of Quality of Bank Assistance

Criteria	Observations and conclusions	Rating
<b>1.ASSESSMENT OF ASSISTANCE STRATEGY</b>		<b>4</b>
<b>1.1. Bank Sector Policy</b>	The coherence of bank policy in the public utilities sector in Morocco, particularly the ongoing reform of projects, is highly satisfactory.	4
1.2. Relevance – Coherence of Strategies	All the projects that have been financed, including the programme for the reform of the water sub-sector, are in line with the Bank's sectoral policy, and are coherent with the strategies adopted by Morocco to address its challenges. Relevance of Bank assistance is highly satisfactory.	4
<b>2. LENDING OPERATIONS</b>		<b>2.9</b>
2.1 Portfolio Composition	Despite the cancellation of two projects in the electricity sub-sector and the disbursement rate for projects in the water sub-sector, the structure of the sector portfolio is well rounded. This judicious choice is highly satisfactory.	4
2.2 Relevance and Quality-at-Entry	The resources mobilised by the Bank were weak and there was insufficient preparation of the projects, which affected their quality at entry. The projects enabled Morocco to achieve its quantitative objectives. The relevance of the operations remains satisfactory.	2,6
2.3 Efficacy of Operations		2.6

Criteria	Observations and conclusions	Rating
<i>Water Sub-sector</i>	There is a new phenomenon where there is a slowdown in demand, due in part perhaps to the low purchasing power of the populace. There was insufficient ADB supervision. Morocco has received a large boost in terms of the development of drinking water supply, but all the projects were late in completion. Effectiveness of assistance in the sub-sector is unsatisfactory.	(2.1)
<i>Electricity Sub-Sector</i>	The sub-sector goals were attained. The effectiveness of loan operations in the electricity sub-sector can be considered to be satisfactory.	(3)
2.4 Efficiency of Operations	The Bank failed to carry out studies on the determinants in the development of the sub-sector, and its preparation, appraisal and supervision of projects was inadequate. There was insufficient coordination and control of the sub-sector in view of the needs of the Moroccan economy and the country's objective of reducing energy dependence. Thus, sector goals were attained at the expense of investment efficiency. Overall, the efficiency of loan operations is therefore unsatisfactory.	2.4
<b>3. INSTITUTIONAL IMPACT</b>	Despite the shortcomings noted, the volume of Bank assistance was a catalytic factor and pushed Morocco to establish an adequate institutional framework. The performance of Bank assistance is therefore satisfactory.	<b>3</b>
<b>4 SUSTAINABILITY OF OPERATIONS</b>	Even though the situation in the electricity sub-sector is better than in the water sub-sector, the Bank must shoulder some of the responsibility for having financed the drinking water projects without making sanitation and wastewater treatment integral to the projects and a condition for disbursement. The performance is satisfactory.	<b>2.8</b>
<b>5. CROSSCUTTING ASPECTS</b>		<b>2.7</b>
<i>Private Sector</i>	The ADB did not introduce innovations in its overall approach in consideration of the medium and long term needs of the private sector. Appraisal and completion reports did not highlight the need to strengthen integration of the projects. For these reasons, Bank performance in this area is unsatisfactory.	2
<i>Gender and Poverty</i>	The Bank has virtually lost sight of the nexus between its assistance and poverty reduction, promoting the role of women, and facilitating access to resources by the poor. Its performance is unsatisfactory.	2
<i>Environment</i>	The Bank was not firm about the conduct of the environmental studies, a loan condition, and did not oppose the cancellation of some sanitation-related components. Nevertheless, because of the positive fallout from its assistance in the electricity sub-sector, Bank assistance is considered satisfactory.	2.6
<i>Regional Development</i>	The Electricity Transmission Extension Project played an indirect part in the development of the regional economies. With this project that pursues the regional objectives of NEPAD and MAU, the ADB is also helping Morocco to fulfil its commitments to support energy cooperation in North Africa. Bank performance is therefore highly satisfactory.	4
<b>6. NON-LENDING ASSISTANCE</b>		<b>2.7</b>
6.1 Economic and Sectoral Studies	Although, overall, the Bank's interventions are consistent with its intervention strategy and helped Morocco catch up in terms of providing basic services and poverty reduction, the use of non loan instruments such as economic and sectoral studies fell short of Morocco's needs and this despite the scale of the loan-funded projects. The Bank's performance is unsatisfactory.	2
6.2 Policy Dialogue	In spite of many shortcomings and the absence of economic and sectoral studies which the Bank does not as yet prepare, the Bank's performance may be considered satisfactory because of the change in the approach towards the preparation of the CSP.	3
6.3 Coordination and Cofinancing	The Bank is making efforts to strengthen cooperation with the external partners in order to achieve greater complementarity of Bank interventions. The Strategic partnership between the Bank and the World Bank culminated in a Memorandum of Understanding in March 2000. For the projects under way between 1996 and 2000 (excluding Water SAP and Interconnection), other water sub-sector Donors contributed financing amounting to 5%, and 34% for electricity. These figures have grown to 27% and 47%, for the two projects currently being implemented. This is a triumph for the cofinancing	3

Criteria	Observations and conclusions	Rating
	strategy that the Bank has adopted. The performance is therefore satisfactory.	
<b>7. PERFORMANCE OF PARTNERS</b>		<b>2.5</b>
7.1 Borrower and Executing Agencies	Virtually all the projects were amended or had their completion date extended. More than any factors for which the Bank may be blamed, these were the result of institutional compartmentalisation and bureaucracy, coupled with budgetary constraints and the executing Agencies lack of familiarity with Bank procurement procedures. Borrower and Executing Agency's performance is satisfactory.	3
7.3 Other Donors and Cofinanciers	The Bank and the EU plan to continue to coordinate their interventions during implementation of the PAS-Eau. Such cooperation strengthens both donors' capacities to dialogue with the Moroccan Government. For the electricity grid interconnection project, ONE deals separately with the three donors but circulates documents produced by each. Overall, the performance of other donors is unsatisfactory.	2.5
7.4 Other Stakeholders	It is difficult to assess the performance of other stakeholders, even though, in their defence, the Bank did not supply them with enough information. Their performance is unsatisfactory.	2
<b>9. OVERALL ASSESSMENT</b>	These projects were relevant to the sub-sector but there was no continuity of actions that could have lent coherence to the entire sector as the crosscutting aspects were neglected. He overall performance of Bank assistance can be said to be satisfactory.	<b>2.9</b>

**Table of Operations (Active Projects after 1996)**

Project	Approval	Signature	Effectiveness	Est. End	Approved	Disbursed	%	Status
DWS TANGIERS (CHARF AKAB)	08/18/1987	03/10/1988	12/21/1989	12/31/1996	7,950,000	6,571,202	100	COMP
EL HACHEF DAM	05/21/1991	11/29/1991	10/09/1992	12/31/1996	44,000,000	22,047,660	100	COMP
DRINKING WATER RADEEF V	03/23/1992	05/13/1992	09/28/1994	06/30/2001	4,200,000	2,684,951	100	PIPE
DRINKING WATER (ONEP) V	03/23/1992	05/13/1992	01/27/1994	08/31/2001	55,800,000	47,910,852	100	COMP
DRINKING WATER SUPPLY VI	05/26/1994	07/20/1994	06/25/1996	12/31/2001	30,000,000	15,816,565	100	COMP
DRINKING WATER AND SANITATION	06/09/1999	12/13/1999	08/01/2001	12/31/2004	21,528,295	14,080,000	87	On Go
STRUCTURAL ADJUSTMENT WATER	12/03/2003	10/14/2004	ND	12/31/2006	184,039,102	215,000,000	0	APVD
HYDROELECTR MICRO POWER STATIONS	06/18/1986	01/14/1987	03/31/1988	06/30/1994	787,499	787,473	100	COMP
MATMATA HYDROELECTRIC PROJECT	10/18/1988	02/07/1989	03/20/1990	12/31/1996	51,000,000	49,088,736	100	COMP
STRENGTHENING ELECTRICITY GRID VII	03/23/1989	04/28/1989	01/18/1990	12/31/1994	39,000,000	37,950,021	100	COMP
UPGRADING ELECTR. TRANSMISSION	12/15/1994	ND	ND	ND	65,000,000	0	0	ABAN
UPGRADING ELECT. TRANSMISSION NETWORK	10/14/1997	05/28/1998	ND	12/31/2001	21,662,290	0	0	ABAN
INTERCONNECTION ELECTRCITY GRIDS	11/13/2002	05/06/2003	ND	12/31/2007	68,479,666	80,000,000	69	On Go

	Approved Amount	Disbursed Amount
<b>WATER-SANITATION</b>		
<b>TANGIERS DWS CHARF EL AKAB (ADB)</b>	7,950,000	6,571,202
<b>EL HACHEF DAM(ADB)</b>	44,000,000	22,047,660
IDB	4,380,000	4,380,000
OPEC	2,900,000	2,900,000
<b>DRINKING WATER PROJECT ONEP-5 (ADB)</b>	55,800,000 + 4,200,000	47,910,852 + 2,684,951
<b>DRINKING WATER SUPPLY ONEP-6 (ADB)</b>	30,000,000	15,816,565
<b>WATER SUPPLY –SANITATION (ADB)</b>	21,528,295	14,080,000
<i>Sub-total Water-Sanitation (ADB)</i>	<i>163,478,295</i>	<i>109,111,230</i>
<i>Cofinancing</i>	<i>8,230,000 (4.8%)</i>	<i>8,230,000 (7.0%)</i>
<b>Water SAP (ADB)</b>	184,039,102	0 (Ongoing)
EU	120,000,000	NA
<b>TOTAL WATER-SANITATION (ADB)</b>	<b>347,517,390</b>	
<i>Cofinancing</i>	<i>128,230,000 (26.95%)</i>	-
<b>ELECTRICITY</b>		
<b>MICRO-CENTRALES HYDROELEC (ADB)</b>	787,499	787,473
<b>MATMATA HYDROELEC PROJECT (ADB)</b>	51,000,000	49,088,736
ITALY	45,220,000	47,950,000
GERMANY	37,520,000	28,170,000
<b>EXTENSION ELEC GRID -7 (ADB)</b>	39,000,000	37,950,021
Buyers Credit	7,850,000	7,850,000
Suppliers Credit	1,390,000	1,390,000
<b>REHAB. ELECTRICITY GRID (ADB)</b>	65,000,000	0 (Cancelled)
<b>REHAB. ELECTRICITY GRID (ADB)</b>	21,662,290	0 (Cancelled)
<b>SUB-TOTAL Electricity (ADB)</b>	<b>177,449,789</b>	<b>87,038,757</b>
<i>Cofinancing</i>	<i>91,980,000 (34.1%)</i>	<i>85,360,000 (49.5%)</i>
<b>INTERCONNECTION ELEC GRID(ADB)</b>	57,440,000	Ongoing
EIB	84,420,000	Ongoing
AFD	35,640,000	Ongoing
<b>TOTAL ELECTRICITY (ADB)</b>	<b>234,889,789</b>	
<i>Cofinancing</i>	<i>212,040,000 (47.4%)</i>	-
<b>TOTAL GENERAL SECTOR</b>	<b>922,677,179</b>	
ADB	<b>582,407,179 (63.12%)</b>	
Cofinancing	340,270,000 (36.88%)	-

Source : Consultant's compilation and calculations, based on appraisal reports.

## SUMMARY OF OPERATIONAL PERFORMANCES AND RESULTS

### 1. Water Sub-sector:

EXPECTED RESULTS	RESULTS OBTAINED
<b>El-Hachef Dam</b>	
<p>The El-Hachef Dam was to have a storage capacity of 300 million m<sup>3</sup> of water and regulate 79 million m<sup>3</sup> per year. The dam was to provide drinking water for the 600,000 inhabitants of Tangiers and neighbouring areas until 2015.</p>	<p>The dam has a capacity of 270 million m<sup>3</sup>. In 1997 the Water Board supplied only 20,400 million m<sup>3</sup> to consumers who, by then, numbered 85,231 (as opposed to 21,600 million m<sup>3</sup> in 1992, when there were only 66,032 consumers). The number of consumers has increased by 29% but sales per consumer have decreased. The target date for customer demand satisfaction in Tangiers and environs has been shifted to post- 2020.</p>
<b>Drinking Water Projects</b>	
<p>The projects were meant to improve production and distribution, and increase the number of families connected to the power mains. In 1996, urban delivery rate was 77%. The number of hours when service is unavailable was expected to be halved.</p>	<p>In 2001, the project's objectives were achieved with the delivery rate improving to 91%. Unavailability has fallen to 80%. Nevertheless, consumption per consumer has fallen.</p>
<p>Estimations were based on a sharp rise in consumption and on constantly rising rates.</p>	<p>Rate increases negatively affected water consumption, which is much lower than was estimated at appraisal. Saturation point was expected to be reached in 1998. But in 2002, the installations were still not running at full capacity and saturation has been pushed forward by ten years.</p>
<p>For the ONEP-5 project, it was estimated at appraisal that after completion, the project would bring in an additional production of 129 million m<sup>3</sup> of water per year. The ONEP-6 project was expected to yield an additional 38 million m<sup>3</sup> of water in 2001.</p>	<p>As at 2001, for ONEP-5, additional volumes of water being produced as a result of the project were thought to be 44 % more than had been estimated at appraisal. For ONEP-6, the volume sold was 1 15 million m<sup>3</sup>, 51% of production. System losses for the two projects are very high.</p>
<p>Consumption had been estimated based on the premise that there would be a steady increase in consumption trends and rates. For ONEP-5, the FIRR was estimated at appraisal at 15 % and the ERR at appraisal was estimated to be 15 %. For ONEP-6, the FIRR was 14.4 % and the ERR was 14.5 %.</p>	<p>The rate of return was adversely affected by diminishing water use and the increasing rates.  The FIRR for ONEP-5 dropped to 8.5% and the ERR to 9%. For the ONEP-6 project, the FIRR is -0.8 % and the ERR to 0.</p>
<p>Unforeseen indirect effects.</p>	<p>There are threats to the environment considering there are no purification stations in the cities concerned.</p>

**2. Electricity Sub-sector :**

EXPECTED RESULTS	RESULTS OBTAINED
<b>Transport Network Extension Project</b>	
The Transmission Network Extension Project was intended to reduce power cuts in the country.	Power outages on the high tension transmission network are now 10 hours of power failure per year, which is within admissible ratios.
The Transmission Network Extension project sought to extend the length of the transmission network in Morocco and increase the capacity of the transformers.	The project achieved its set objectives and it improved service quality, and strengthened security and continuity of electricity supply country wide. The project also built 1727 km of power lines, including: a) 573 km of 225 kV; b) 686 km of 60 kV; c) 468 km of 22 kV. Additionally, 6 225/60 kV volts and 11/ 60 kV posts were built, and electricity supplied to 9 secondary centres.
The network extension project was scheduled to be completed in 3 years and IRR was calculated at 11.97%.	The project took 6 years to complete and the IRR rose to 10.37 %.
<b>Matmata Hydroelectric Dam Project</b>	
The main objective of the Matmata Hydroelectric Dam Project described at appraisal was to strengthen the Plant and increase production of affordable electric power to satisfy the demand at peak hours and busy periods.	The project appears, at completion, to have been fully justified economically. The hydroelectric plant has an installed capacity of 240 MW and hydroelectric power now contributes 20 % of installed capacity (6 % in 1995). With a producible average of 270 GWh/yr, it smoothes the load curve and contributes to satisfy demand at peak periods. It has reduced the use of gas turbines during peak periods, obviated the need for load shedding, and has reduced consumption of petroleum products to generate power.
The project was to be completed in 5 years. Financial viability at appraisal was estimated at 10.2% while the economic rate of return was estimated at 20.8%.	The project took almost nine years to complete. Because tariffs have increased at a slower pace than projected, the FRR is only 7.8%. By contrast, economic viability at completion was 39%.
There were unforeseen indirect effects.	With the project, almost 600 million m <sup>3</sup> /year can now be diverted into the reservoir of another power plant. On one hand, this has increased the annual producible power from that power plant while providing another 25,000 ha of irrigation downstream. The project also provided an access road and .

## MATRIX of LESSONS AND RECOMMENDATIONS

Lessons	Recommendations to the Bank	Recommendations to the Country
<b>1. Major sectoral trends : (cf. : 1.3.6 ; 1.3.7 ; 2.2.3 ; 3.3.1 ; 3.3.4 ; Annex 6.)</b>		
<p>i) On current trends, the demand for electricity will increase faster than the economic grows, resulting in the need to use more electricity to obtain one unit of GDP. This will lead to overinvestment in the sector, a situation that ought not to have arisen considering the energy control programmes that Morocco implemented in the 1990s.</p> <p>ii) The problem of inadequate supply will quickly emerge due to heavy future demand and because of the difficulty in mobilising new water resources and the uneven spatial distribution of such resources. Morocco will have no choice but to recycle wastewater for industrial use, desludge old dams, reduce water system losses, ensure rational use of the resource and reconvert certain agricultural activities that require vast quantities of water.</p>	<p>i) The Bank should set up technical assistance projects in water demand management, recycling, reduction of water system losses and desludging of dams.</p> <p>ii) Introduce conditions fixing a sanitation and drinking water retreatment ratio.</p> <p>iii) Introduce conditions setting consumption performance ratios..</p>	<p>i) Morocco should resume information and sensitization programmes on the rational use of electricity and the need to control demand, begun in the 90s.</p> <p>ii) Establish with Bank assistance a programme to optimise water supply and demand.</p> <p>iii) Morocco should make up for lost time on the sanitation and wastewater retreatment or risk jeopardising the sustainability of DWS projects.</p> <p>iv) Prepare programmes that will compensate for not paying early enough attention to sanitation and retreatment of waste water.</p> <p>v) Initiate renovation of water system to prevent wastage.</p>
<b>2. Tariffing of resources and essential services : (cf : 3.3.2 to 3.4.4 ; Annex 3.)</b>		
<p>i) All too often, appraisal reports have blamed the inadequacy of rates charged for the inability to recover the cost of investments. Yet, rates have been reduced but they are still too high compared to other countries in the Maghreb.</p> <p>ii) Consumption levels among low income groups are even falling, indicating that even if there is a high social need for these resources, demand for them remains low.</p> <p>iii) If the Bank's demands to increase rates had been applied, Moroccan goods would have lost their comparative advantages, placing them out of reach for low-income households, which would have been inconsistent with Bank policy.</p>	<p>i) The Bank should avoid setting conditions that delay completion of projects and/or contravene Bank policy on improving the poor's access to basic resources.</p>	<p>i) Review the rates charged for basic resources, to ensure that Moroccan products do not lose their comparative advantages and that the poor have access to mains connection and an adequate supply of water for their basic needs.</p> <p>ii) Reintroduce programmes to control power consumption and initiate similar programmes for the water sub-sector.</p> <p>iii) Commission studies to look at costs and include productivity targets among the goals to be met by actors.</p>
<b>3. Absorption of loans and disbursements : (cf : 3.2.4 ; 5.1.2 to 5.2.5 ; 6.2.4 ; Annex 3.)</b>		
<p>i) Institutional compartmentalisation, red tape and difficulty in mobilising local counterpart funds seem to outweigh all other factors</p>	<p>i) For future projects, the Bank should factor in bureaucratic red tape and difficulties in raising</p>	<p>i) Morocco should tailor allocation of counterpart funds in local currency to</p>



Lessons	Recommendations to the Bank	Recommendations to the Country
<p>inherent to the Bank. The components of all the projects were amended and all projects experienced slippages on the deadlines for completion. Even those projects for which identification and preparation were prepared within schedule still took 3 to 4 times longer to complete than was estimated at appraisal.</p> <p>ii) Low loan absorption is not peculiar to the Bank and applies also to the other donors. The Bank disbursed 67% of approved amounts in the sector, for active projects between 1996 and 2000. This is an exceedingly high rate considering that, overall, between 1972 and 1992, disbursement rate was only 57.5%.</p> <p>iii) The Bank has still not started to use NICT by managing disbursements online as some other donors do. This makes it difficult to monitor disbursements.</p>	<p>local counterparty when estimating project completion dates.</p> <p>ii) The Bank should strive to keep disbursement delays to the barest minimum while ensuring strict compliance with the provisions for procurement of goods and services and increasing its technical assistance to the country.</p> <p>iii) The Bank should follow the example of other donors and start using NICT to manage disbursements, and thus ensure real-time monitoring of disbursements by the Executing Agency.</p>	<p>the financial requirements of projects so as not to delay their implementation and also to reduce the amount of preliminary expenses.</p> <p>ii) Take measures to reduce delays in loan effectiveness.</p> <p>iii) Strengthen institutional framework and coherence so as not to slow down projects.</p>
<p><b>4. Sectoral Technical Assistance : (cf. : 3.4.6 ; 3.4.7 ; 4.1.3 ; 6.2.2 )</b></p>		
<p>i) Mobilisation of instruments such as sectoral or thematic studies fell short of the scale expected of loan-financed projects (barely 0.13% of total approved for the sector.). Except for the technical assistance component that is integral to the financed projects, the Bank neglected to call in technical assistance and thus failed to portray the image of a Bank supporting the country's development. The Bank failed to adopt a strategy that would have also enabled it to use technical assistance as a tool for monitoring and gathering information on the business climate in Morocco, and as a way to build dialogue. The Bank appears to be falling behind other donors and does not use support as a comparative advantage.</p> <p>ii) Without an analysis of the sector development determinants and, given the insufficient project preparation and supervision, sector goals have been met only by sacrificing investment efficacy. Augmentation of water production has mitigated values for mains water losses and overconsumption of electricity albeit without reducing them in absolute value.</p>	<p>i) The Bank should review the manner of providing support to Executing Agencies to improve the performance of the assistance package and to avoid losing ground to other donors who use partnering for development as a comparative advantage. It should use technical assistance as a tool for monitoring and gathering information on the business climate in Morocco, as well as a means of strengthening dialogue.</p> <p>ii) The Bank should help the country to accurately assess companies' production costs and optimise the efficiency of investments in the public utilities sector.</p> <p>iii) Establish databases on costs and normative completion periods for the structures.</p> <p>iv) Systematise project identification missions and studies to provide inputs to the project appraisal.</p>	
<p><b>5. Bank Dialogue and Communication : (cf. : 5.4.1 ; 5.4.2 )</b></p>		
<p>i) The new participatory approach to policy dialogue vindicated the Bank in its choice of intervention, but should be further strengthened to include the participation of civil society to claim ownership of projects and programmes.</p> <p>ii) Because the Bank made no provisions for communication tools or planned any 'Open Days' for Moroccan business leaders, even the</p>	<p>i) The Bank should continue the participatory approach, begun in 2000, to prepare the CSP. It should seek to involve civil society more closely, to promote ownership of projects and programmes, particularly in the public utilities sector, which is</p>	

Lessons	Recommendations to the Bank	Recommendations to the Country
<p>Confederation of Enterprises (CGEM) declares that it is ignorant of the conditions for accessing ADB credits..</p>	<p>known to be very technical and difficult to grasp by the uninitiated. The Bank should also establish a permanent liaison with employer's Organisations and local or foreign institutions working in the SME sector.</p>	
<p><b>6. Coordination of Donors and Cofinancing : (cf : 4.3.1 to 4.3.4 ; Annex 3.)</b></p>		
<p>i) The fact that coordination of external assistance takes place at two levels, (Ministry of Finance and the Office of the Prime Minister), often makes for difficulty in harmonising and coordination. Donors themselves need to strengthen coordination of their assistance to Morocco.</p> <p>ii) Even though it is as yet difficult to measure the gains from the performance of multiple donors on projects, each donor, it should be pointed out, seems to continue to intervene according to their individual strategy and project supervision method.</p> <p>iii) Between 1996 and 2000, the share of projects cofinanced with the Bank by other donors was 5% for water and 34% for electricity. These rates increased to 27% and 47%, respectively with the two projects financed after 2000 (Interconnections and Water-SAP). This constitutes a real concretisation of the cofinancing strategy adopted by the Bank.</p>	<p>i) The Bank should take further measures to strengthen joint actions with other multilateral or bilateral donors, for better coordination and streamlining of their interventions.</p> <p>ii) To increase the share of cofinancing in its portfolio, the Bank could draw up a portfolio of bankable projects. It is perfectly possible to work together with the country to seek out other donors to cofinance such projects and share the risks.</p> <p>iii) Constitute a pipeline of potential projects in the sector, by carrying out prospecting missions.</p>	

## WATER AND ELECTRICITY STATISTICS

### 1.Examples of Water Rates (PAGER Surtax and Solidarity Tax inclusive)

	WATER TARIFFS AND DISTRIBUTION (MAD / m <sup>3</sup> excl. VAT)					
USE	DOMESTIC				PREFERENTIAL	INDUSTRY
CITY	8m <sup>3</sup>	8-20m <sup>3</sup>	20-40m <sup>3</sup>	>40m <sup>3</sup>		
<b>ONEP</b>						
ONEP PLANTS	2.37	7.39	10.98	11.03	7.2	6.68
<b>REGIES (selective choice based on highest and lowest tariffs.)</b>						
OUJDA	3.81	10.11	14.72	14.77	9.77	10.13
TANGIERS	2.48	6.28	10.65	10.70	5.19	5.19
B- MELLAL	2.61	6.51	10.14	10.19	6.73	7.05
TAZA	1.97	4.96	5.94	5.99	5.18	5.58
MEKNES	1.30	3.88	4.45	4.51	2.18	2.23
<b>CONCESSIONS</b>						
LYDEC-Casablanca	2.92	9.96	13.20	13.25	7.29	7.55
LYDEC-Mohamadia	2.53	8.15	11.68	11.73	6.25	6.54
REDAL	2.13	7.21	10.83	10.89	6.56	6.56

Source : ONEP

### 2.Mains Water Subscribers (thousands)

YEAR	1992	1995	1996	1997	1998	1999	2000	2001	2002
ONEP	305 (19.7%)	453	508	552	594	636	680	742	797 (28.8%)
UTILITIES	534 (34.6%)	624	655	694	718	768	811	854	902 (32.8%)
CONCESSIONS	707 (45.7%)	746	771	790	828	873	937	995	1061 (38.4%)
TOTAL	1546 (100%)	1822	1934	2036	2140	2277	2428	2591	2760 (100%)

Source : ONEP

### 3.Electricity

	1993	1998	2000	2003
<b>Total national production (GWh)</b>	NA	11695	11475	15341
Hydro-power	NA	1759 (15%)	704 (6%)	1441
including Exports from Spain	NA	757	2402	(9,4%)
				NA
<b>Net Power Demand (GWh)</b>	NA	12453	13942	16779
<b>Total installed power (MW)</b>	3359	3675	4388	4508
Incl. Hydropower (MW)	927	1167	1167	NA
<b>Maximum Power Demand (MW)</b>	NA	2325	2470	2977
<b>Length Transmission Network(km)</b>	NA	15086	16147	17107
400 kV	NA	500	500	727
225 kV	NA	5028	5666	6459
150 kV	NA	763	763	316
60 kV	NA	8795	9218	9605
<b>Length of Distribution Network (km)</b>	NA	60093	93088	129085
Medium Voltage	NA	23667	27912	36955
Low Voltage	NA	36426	55176	92130

Source : Compilation of ONE Statistics

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Aide-mémoire for the ADB Identification Mission / Maroc / 14 to 18 March 2005  
ADB Group Strategy for development of the private sector /4 January 2005  
Note on Water Sector Activities and Programmes / ADB / 3 May 2004  
Guidelines for Country Assistance Evaluation / ADB / Undated document  
Strengthening Support for PRI / ADB / 22 mars 2005  
Project Appraisal and Completion Reports (X = Available ; NA = Not Available) :

	<b>Project</b>	<b>Assessment</b>	<b>Completed</b>
<b>Water</b>	TANGIERS DRINKING WATER SUPPLY	X	X
	DWS TANGIERS (CHARF EL AKAB)	X	X
	EL HACHEF DAM	X	X
	RADEEF DRINKING WATER / V	X	X
	DRINKING WATER PROJECT (ONEP) V	X	X
	DRINKING WATER SUPPLY PROJECTVI	X	X
	DRINKING WATER SANITATION PROJECT	NA	NA
	WATER SECTOR STRUCTURAL ADJUSTMENT	X	NA (Ongoing Project)
<b>Electricity</b>	HYDRO-ELECTRIC MICRO POWER STATIONS	NA	NA
	MATMATA HYDROELECTRICITY PROJECT	NA	X
	ELECTRICITY VII	NA	X
	INTERCONNECTION ELECTRICITY GRID	X	NA (Ongoing Project)

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