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Report No: 28939

IMPLEMENTATION COMPLETION REPORT
(FSLT-70550)

ON A

LOAN

IN THE AMOUNT OF US\$65 MILLION

TO THE

KINGDOM OF MOROCCO

FOR AN

INFORMATION INFRASTRUCTURE SECTOR DEVELOPMENT OPERATION

May 6, 2004

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CURRENCY EQUIVALENTS

(Exchange Rate Effective 8 May 2004)

Currency Unit = Moroccan Dirham (MAD)

100 MAD = US\$ 10.93135

US\$ 1 = 9.24800 MAD

FISCAL YEAR

July 1 - - June 30

ABBREVIATIONS AND ACRONYMS

3RP	Réseaux radioélectriques à ressources partagées (shared radioelectric networks)
ADB	African Development Bank
ANRT	Agence Nationale de Réglementation du Secteur des Télécommunications
AoL	Administration on line
ADSL	Asymmetric Digital Subscriber Line
ATM	Automatic teller machine
BAM	Barid Al-Maghrib (the postal operator)
CAS	Country Assistance Strategy
CDMA	Code Division Multiple Access
DH	Dirhams
ETSI	European Telecommunications Standards Institute
FADES	Fonds Arabes et Banque Islamique de Développement
GDP	Gross Domestic Product
GIPE	Gestion Intégrée du Personnel de l'Etat (Integrated Management of the Government's Human Resources)
GMPCS	Global Mobile Personal Communications Services
GSM	Global System for Mobile Communications
HT	Hors taxes (net of tax)
IAM	Itissalat Al-Maghrib (Maroc Telecom, the incumbent telecommunications operator)
ICR	Implementation Completion Report
ICT	Information and Communications Technologies
iDEN	Integrated Digital Enhanced Network
IISDL	Information Infrastructure Sector Development Loan
IMF	International Monetary Fund
IPO	Initial Public Offering
ISP	Internet service provider
IT	Information Technologies
ITU	International Telecommunication Union
LEO	Low Earth Orbit
LSP	Letter of Sector Policy
MAD	Moroccan Dirham
MENA	Middle East and North Africa
MNA	Middle East and North Africa
OECD	Organisation for Economic Co-operation and Development
ONE	Office National de l'Electricité
ONCF	Office National de Chemins de Fer
PC	Personal Computer
PHRD	Policy and Human Resources Development
PSR	Project Status Report
QAG	Quality Assurance Group
RIO	Reference Interconnection Offer

SA	Société Anonyme (French company designation)
SARL	Société à Responsabilités Limitées
SEPTI	Secrétariat d'Etat Chargé de la Poste et des Nouvelles Technologies de l'Information
SGG	Secrétaire Générale du Gouvernement (Secretary General of Government)
SMEs	Small and Medium Enterprises
SMS	Short Message Service (cellular phone text messaging)
SNO	Second National Operator
SPCS	Satellite Personal Communication Services
Tetra	Terrestrial Trunked Radio
TOR	Terms of Reference
TPI-SAL	Telecommunications, Post and Information Technology Sector Development Sector Adjustment Loan
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPU	Universal Postal Union
US	Universal Service
VSAT	Very Small Aperture Terminal
WB	World Bank
WBI	World Bank Institute
WTID	World Telecommunication Indicators Database
WTO	World Trade Organization

Vice President:	Christiaan Poortman
Country Director	Theodore Ahlers
Sector Manager	Pierre Guislain
Task Team Leader/Task Manager:	Carlo Maria Rossotto

MOROCCO
Information Infrastructure Sector Development Project

CONTENTS

	Page No.
1. Project Data	1
2. Principal Performance Ratings	1
3. Assessment of Development Objective and Design, and of Quality at Entry	2
4. Achievement of Objective and Outputs	7
5. Major Factors Affecting Implementation and Outcome	15
6. Sustainability	16
7. Bank and Borrower Performance	17
8. Lessons Learned	20
9. Partner Comments	21
10. Additional Information	22
Annex 1. Key Performance Indicators/Log Frame Matrix	23
Annex 2. Project Costs and Financing	24
Annex 3. Economic Costs and Benefits	25
Annex 4. Bank Inputs	26
Annex 5. Ratings for Achievement of Objectives/Outputs of Components	28
Annex 6. Ratings of Bank and Borrower Performance	29
Annex 7. List of Supporting Documents	30
Annex 8. Sector Performance	31
Annex 9. Key Information Infrastructure Progress Measures	37
Annex 10. Liberalization Schedule Originally Approved by ANRT's Board in March 2000	41
Annex 11. Proposed Policy Matrix for IISDL as of 27 November 2000	42
Annex 12. Borrower's Report	46

<i>Project ID:</i> P065736	<i>Project Name:</i> Information Infrastructure Sector Development Project
<i>Team Leader:</i> Carlo Maria Rossotto	<i>TL Unit:</i> CITPO
<i>ICR Type:</i> Core ICR	<i>Report Date:</i> May 12, 2004

1. Project Data

Name: Information Infrastructure Sector Development Project *L/C/TF Number:* FSLT-70550

Country/Department: MOROCCO *Region:* Middle East and North Africa Region

Sector/subsector: Telecommunications (45%); Information technology (28%); Postal services (18%); Other industry (9%)

Theme: Regulation and competition policy (P); Other financial and private sector development (P); State enterprise/bank restructuring and privatization (S); Access to urban services for the poor (S); Infrastructure services for private sector development (S)

KEY DATES

<i>PCD:</i> 02/10/2000	<i>Effective:</i> 09/30/2001	<i>Original</i>	<i>Revised/Actual</i>
<i>Appraisal:</i> 03/27/2000	<i>MTR:</i>		06/27/2003
<i>Approval:</i> 05/31/2001	<i>Closing:</i> 12/31/2001		06/30/2003

Borrower/Implementing Agency: KINGDOM OF MOROCCO/SEPTI; KINGDOM OF MOROCCO/BAM; KINGDOM OF MOROCCO/ANRT

Other Partners: African Development Bank

STAFF	Current	At Appraisal
<i>Vice President:</i>	Christiaan J. Poortman	Jean-Louis Sarbib
<i>Country Director:</i>	Theodore O. Ahlers	Christian Delvoie
<i>Sector Manager:</i>	Pierre A. Guislain	Emmanuel Forestier
<i>Team Leader at ICR:</i>	Carlo Maria Rossotto	Clemencia Torres
<i>ICR Primary Author:</i>	Carlo Maria Rossotto; Isabelle Andress; Mather Pfeiffenberger	

2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: S

Sustainability: L

Institutional Development Impact: M

Bank Performance: S

Borrower Performance: S

QAG (if available)

Quality at Entry: HS

Project at Risk at Any Time: Yes

ICR

U

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

The objectives of the Morocco Information Infrastructure Sector Development Loan (IISDL) were defined in the context of Morocco's desire to pursue further reforms in its information and communications technologies (ICT) sector. This followed an initial phase of telecommunications liberalization that was supported by the successful Telecommunications, Post and Information Technology Sector Adjustment Loan (TPI-SAL) (Loan No. 4465-MA) of 1999-2000. Under that operation, Morocco implemented the provisions of a new telecommunications law (Law 24-96) and introduced competition in the cellular market.

Given the positive domestic and international reception for those conditions, Morocco was keen to undertake a second phase of reforms that would increase competition in the ICT sector, develop the legal and regulatory framework, and extend the benefits of ICT throughout the Moroccan population. The Government requested Bank support for these initiatives, which was provided by the follow-up IISDL, a US\$65 million one-tranche adjustment operation approved by the Board on May 31, 2001. Cofinancing was supplied by the African Development Bank (ADB), which designed a two-tranche adjustment operation of US\$100 million.

The main objectives of IISDL were to: (i) support the Government's program to deepen market liberalization, increase private sector participation, extend services and strengthen the regulatory environment of the telecommunications sector; (ii) assist the Government in the formulation and implementation of a strategy for the use and development of information technologies (IT); and (iii) formulate a national strategy for the postal sector, including the financial services provided through the postal network, which will serve as a basis for further specific reforms.

These objectives reflected Morocco's commitment at the time of Board approval to ongoing sector reform. They were also consistent with the 2001 Country Assistance Strategy (CAS) objectives of enhancing conditions for economic growth and private sector development and increasing private participation in infrastructure. In the aftermath of the TPI-SAL, the Government wished to continue focusing its measures on the broader scope of information infrastructure, and thus an operation which encompassed the three sub-sectors of telecommunications, post, and IT made sense. However, the objectives were somewhat complex given the range of policy improvements sought over the three sub-sectors and the Government's limited capacity in IT and post. More modest objectives in these areas, as discussed further below, might have been more appropriate.

3.2 Revised Objective:

The original objectives were not revised.

3.3 Original Components:

The components of the operation were divided among the three sub-sectors mentioned above: telecommunications, IT, and post. The Government's Letter of Sector Policy (LSP) dated April 6, 2001 laid out in further detail the actions that would be taken to implement the commitments under IISDL.

Telecommunications

(a) Privatization of Itissalat Al-Maghrib (Maroc Telecom)

The Government planned to sell a strategic block of 35% of Maroc Telecom's shares through international competitive bidding. Completing this sale was a measure of Board presentation of the IISDL. Following that sale, the Government intended to further divest its ownership of Maroc Telecom by offering shares for sale to the company's employees and retirees. In addition, it intended to sell a second block of 16% of Maroc Telecom's shares in early 2002 through an initial public offering (IPO) on the Casablanca and international stock exchanges. (see also the Borrower's Report in Annex 12).

(b) Reinforcing competition in telecommunications infrastructure and services

The Government would publish in the official gazette a decree awarding a GMPCS license, adopt a timetable to grant new licenses for networks and services in order to accelerate liberalization, and invite expressions of interest for these licenses. These were measures for Board presentation. The new licenses were expected to lead to the deployment of broadband networks, enabling fast Internet access and multimedia applications. From January 2003 on, the new operators would be allowed to provide all services including voice and would thus become full-fledged competitors to Maroc Telecom in their respective market segments. Additionally, as of January 1, 2002, the second GSM operator Méditel was scheduled to launch international services for its own customers, introducing competition in this segment. Additional international licenses were to have been awarded in 2002. (For further information on these licenses, see Annex 10.)

To further promote competition, the Government also planned send to Parliament an amendment of Law 24-96 that would facilitate the use of alternative infrastructures. This would enable utility and transport companies to make their telecommunications networks and rights of way available to new and existing operators, consequently reducing infrastructure cost. Approval of this amendment by the Council of Government was part of the effectiveness measures for the IISDL.

(c) Expanding access to services at reasonable prices for all segments of the population

The Government set general objectives to increase rural teledensity from 0.6% in 2000 to 7% in 2012 and to have at least one payphone per 250 inhabitants by 2005. Actions planned by the Government in the pursuit of these objectives included defining the universal service obligations in Maroc Telecom's license and preparing a new universal service regime by the sector regulator (ANRT). The latter would be aimed at narrowing gaps in service not covered by commercial operations alone. Carrying out these actions were measures for Board presentation of the IISDL. The Government intended to present to Parliament an amendment to Law 24-96 to expand the definition of universal service to include telecommunications and information services in general, rather than telephony only. Approval of this amendment by the Council of Government was an effectiveness measure for IISDL. The Government also intended to draft a decree implementing the new universal service regime.

(d) Reinforcing the telecommunications regulatory framework

In order to strengthen ANRT, the Government would send to Parliament an amendment to Law 24-96 that would replace *a priori* financial controls on ANRT by *a posteriori* controls. The Government was also to submit to Parliament an amendment to Law 24-96 that would strengthen ANRT's enforcement power over

operators by allowing the agency to impose graduated sanctions (including financial penalties) for non-compliance, in addition to license suspension provided for in Law 24-96. Approval of these two amendments by the Council of Government was part of the IISDL measures for Board presentation and effectiveness, respectively.

To strengthen the financial autonomy and accountability of ANRT, the Government intended to review by March 2002 the agency's funding sources and adjust regulatory fees to bring them more in line with the cost of regulation. This was to be preceded by a study on pricing of spectrum rights. The preparation of terms of reference and funding for this study was a Board .

The design of these four project components addressed all elements of the IISDL's first objective, namely to increase private sector participation, deepen liberalization, extend services, and strengthen regulation, respectively. The intended sequencing of actions under the first two components -- increasing competition through the award of new licenses before further divestiture of Maroc Telecom -- also drew on the lesson from TPI-SAL, that strengthening competition prior to privatization is a powerful tool of sector reform.

Information Technology

(e) Developing an adequate legal and regulatory framework for information technology and promoting the development of electronic commerce

The Government was to prepare and submit to Parliament by September 2002 a draft law on data transmission, including recognition of electronic signature. Approval of this draft law by the Council of Government was a measure for Board presentation. Further draft laws to create a coherent and reliable legal framework were to be elaborated, including certification of electronic transactions, cryptography, privacy, technology neutrality, and consumer protection in the field of electronic media.

(f) Developing inter-administration networks

The Government would launch a pilot project of its Administration-on-Line (AoL) initiative. The aim of AoL was to gradually develop a government-wide information system, connect different ministries at the central and local level, and establish common interoperable procedures. AoL was expected to streamline procedures, reduce costs, and benefit citizens and enterprises. In addition, this infrastructure would allow development of e-government applications and improve public services. The selection of the Integrated Management of the Government's Human Resources (*Gestion Intégrée du Personnel de l'Etat - GIPE*) as the pilot project for the AoL initiative and the identification of financial resources for the initiative's subsequent phases were measures of Board presentation. At Board, launch of the GIPE was expected in November-December 2001.

(g) Promotion of ICT-related applications through public-private partnerships and integration of certain traditional sectors in global commerce

The Government would reach agreements with two private companies for the development of certified electronic commerce platforms for economic cooperatives (e.g. groups of local artisans, craftspeople, farmers). Signing these agreements was a measure for Board presentation. In addition, the Government intended to promote the use of e-commerce portals among cooperatives. Under this component the Government also intended to launch a cyber park in Casablanca and plan a second park in Bouznika. The parks would host incubators for new ICT enterprises and SMEs.

Postal Sector

(h) Designing a national strategy for the modernization of the postal sector

The Government would undertake a postal sector study. This was viewed as a key element for the design of the national postal strategy, aiming at: a) the provision of universal service in the postal sector in line with international standards; b) the gradual opening of the postal service to competition and increased private participation; c) the strengthening of the postal operator Barid Al-Maghrib (BAM), notably through its corporatization, as a credible competitor in a liberalized environment; and d) the increased mobilization of rural savings and the improvement of management autonomy in postal financial services. Completing the sector study was a measure for Board presentation.

(i) Modernizing the postal operator (BAM)

The Government sought to modernize BAM through preparation and implementation of: a) an action plan for business development; b) an internal restructuring; and c) the increased use of telecommunications services and IT applications to enhance the internal efficiency (information systems) and to improve the quality of postal services (value-added services). Signature of a program contract between the Government of Morocco and BAM, and the completion of the first phase of a study on BAM's restructuring, were measures for Board presentation.

(j) Extending the provision of financial services through the postal network

The Government would undertake, in collaboration with BAM and SEPTI, a study to identify actions aimed at: a) ensuring the access to financial instruments for a broader range of consumers, without undue distortions of fair competition with the banking and financial system; b) allowing BAM to diversify its revenue sources in a context of postal sector liberalization; and c) increasing savings mobilization and improving the allocation of resources towards productive activities.

These three components reflected accurately the project objectives for the postal sector. Both the objectives and the components, however, were too ambitious given the Government's limited project implementation capacity. It would have been better to have put the main focus on modernizing and corporatizing the postal operator (see also Sections 4.2(i) and 7.1).

The multisectoral nature of the IISDL had merits given the common institutional legacy and technological convergence of the telecommunications, IT, and postal sectors. However, the project design would have been stronger had there been fewer components focused on key areas to ensure maximum impact (see also Section 7.1).

3.4 Revised Components:

The original components were not revised.

3.5 Quality at Entry:

For this ICR, Quality at Entry is considered to have been **unsatisfactory**. Quality at entry was undermined by the one-tranche design adopted by the Bank's country management on short notice before Board presentation. This decision was not consistent with the assessment of the operation's risks, as explained

below.

Before Board approval of the IISDL, the Bank's country management decided to restructure the operation from two tranches to one. This decision was based on the base case assumptions of a new CAS being presented to the Board in May 2001, at the same time as the IISDL. The proposed IISDL fell outside of the proposed core program and fiscal triggers in the base case of the CAS. Support for the IISDL, which had been in preparation since FY99, was nonetheless deemed important in recognition of Morocco's excellent track record under the TPI-SAL. In order to reconcile these conflicting positions, the Bank's country management reduced the IISDL loan amount and cut the number of tranches from two to one. The project team disagreed with this choice, because it was concerned that the one-tranche structure would weaken the Bank's leverage on implementation of the Government's reform program.

This decision was considered by the team as non consistent with the assessment of the risks faced by the IISDL. The team had identified the following risks: (i) possible delay in the introduction of competition in the telecommunications sector (fixed line voice services); (ii) weak institutional capacity to design and implement reforms, especially in the IT and postal sectors; (iii) challenges to the regulatory agency's autonomy and its capacity to perform efficiently; (iv) delays in the elaboration and adoption of a new legal and regulatory framework in the postal sector; and (v) insufficient coordination among ministries for the development of IT-based initiatives. Bank country management felt these risks were sufficiently mitigated by (i) consistency of the IISDL with the 2001 CAS objectives; (ii) consistency of the objectives with Morocco's stated priorities for economic growth and poverty reduction, through job creation and increased access to communication that the ICT sector offers; (iii) Morocco's commitment to ongoing sector reforms following TPI-SAL's substantial achievements and underpinned by a strong policy dialogue with the Bank; and (iv) existence of a second tranche of the related ADB operation.

A QAG assessment carried out in June 2001 rated Quality at Entry as **highly satisfactory**, praising especially the Bank management decision to convert the loan from a double-tranche to a single-tranche adjustment operation. In QAG's view this was important, because the decision made it possible for the Government with Bank support to complete the privatization of Maroc Telecom, which was seen as the main aspect of the reform program, before the operation was sent to the Board. QAG placed this emphasis on the importance of the privatization because it saw the involvement of major international private sector companies in Morocco's telecommunications sector (Vivendi in Maroc Telecom; Spain's Telefónica and Portugal's TelecomGroupe in Méditel, the second GSM operator) as providing a strong attraction for other private sector players to become involved. Nevertheless, QAG singled out competition policy as an area for improvement, due to the exclusivities in various segments given to Maroc Telecom and Méditel until 2003. QAG encouraged the Bank and the Government to continue working to ensure that the telecommunications sector was effectively opened to competition according to the Government's timetable with all barriers removed, in order to extend access to all services to the Moroccan population. Competition, however, actually slowed down considerably throughout the operation, and in retrospect it also appears that QAG underestimated the effect that the privatization of Maroc Telecom would have in limiting further private sector participation in the sector.

For all these reasons, and with the benefit of hindsight, the one-tranche structure can now be seen as a significant shortcoming of the operation (see also Section 7.1 for further discussion).

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

Overall, the outcome of the operation is rated **satisfactory**. The reasons for this rating are the following: a) private participation in the sector was increased, through the successful privatization of Maroc Telecom; b) the Government made some effort to increase competition in the telecommunications sector through the attempt to award a license for a Second National Operator (SNO), although it failed to elicit the interest of investors; c) with delay, some improvements in the regulatory framework took place; and d) with delay, substantial achievements were obtained in the postal sector (specifically with regard to BAM's performance) and in the IT sector.

The satisfactory rating is also justified by the fact that the Government has, in the long run if not entirely during the IISDL, maintained its commitment to increasing competition and private participation in the sector. The Government relaunched the liberalization process in 2004, after the IISDL had closed, and a plan to award new licenses is currently being led by ANRT. The Government has confirmed its intention to further divest its remaining ownership interest in Maroc Telecom.

However, the outcome of the project, although satisfactory, fell short of the commitments and expectations set during project preparation. In particular, the Council of Ministers approved Law 55-01 amending Law 24-96 only on April 16, 2004. This is nine months after the approval by the Council of Government on June 26, 2003, and long after the original timetable that had forecast presentation to Parliament in the year 2001. Shortfalls are examined in Section 4.2 below.

Following the ICR review meeting of December 2003, Bank senior management decided to communicate to the Government that the ICR would be finalized with an unsatisfactory rating for this section, if Law 55-01 amending Law 24-96 was not approved before the planned ICR submission date of December 31, 2003. Management agreed to extend the ICR submission date to May 14, 2004 to allow time for the draft amendments to be approved by the Council of Ministers.

4.2 Outputs by components:

(a) Privatization of Itissalat Al-Maghrib (Maroc Telecom)

The outcome of this component is **satisfactory**. The initial privatization of Maroc Telecom was successfully completed in February 2001. A block of 35% of shares was sold for US\$2.33 billion to the Vivendi Universal Group through international competitive tender. A shareholders agreement gave Vivendi considerable authority to manage the company. No other country in the MENA region, except Jordan, was able in 1998-2003 to bring private investment into their incumbent operators.

The Bank's advice on the terms of Maroc Telecom's license was generally accepted. The issue of possible inconsistency between the license and Morocco's WTO commitments on telecommunications was raised by the Bank but a definitive clarification was not reached. Slippages in the privatization schedule and the time consumed by these interactions delayed Board presentation by six months.

Further divestiture of the state's ownership in Maroc Telecom was postponed. An initial public offering in domestic and international markets, planned for 2002, was not carried out. This was largely due to the sharp decline of international capital markets from 2000, but other factors also played a role: (i) the restructuring of Vivendi's global business, which cast uncertainty regarding Maroc Telecom's future

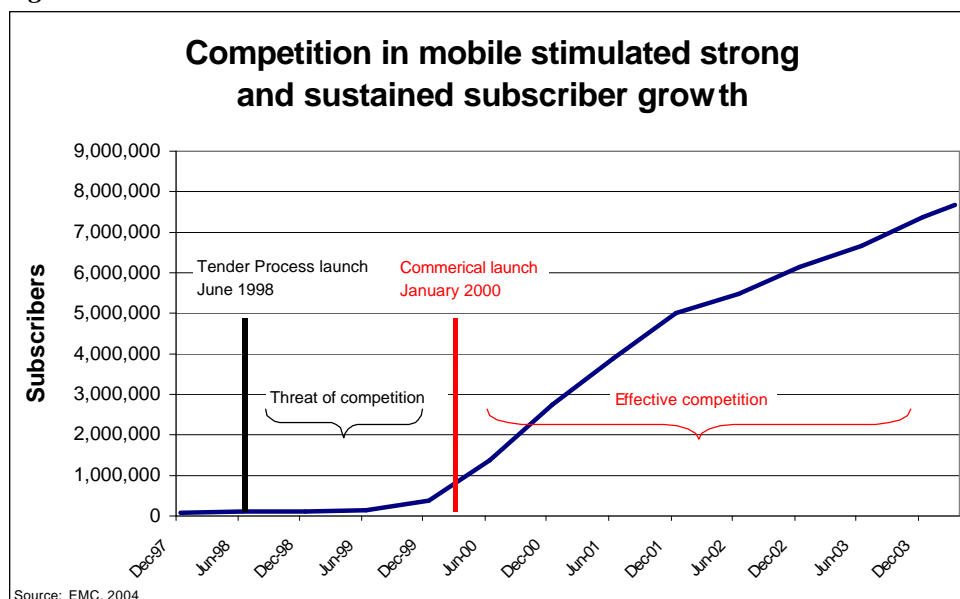
ownership and management; and (ii) the unsettled condition of the Moroccan telecommunications regulatory framework, including amendments underway to the telecommunications law, unresolved interconnection problems, uncertain timetable for further liberalization, and absence of a working universal service financing mechanism. The Government's option to sell a further 16% of shares to Vivendi (which would give the latter ownership control) has likewise been delayed, for much the same reasons and also pending valuation of the company. The transfer of stock to Maroc Telecom's employees, planned for 2001, remains pending subject to setting a price in terms of new market placements.

The Government remains committed to the divestiture of the state's remaining stake in Maroc Telecom. An important objective is to resolve the conflict of interest between the Government's roles as regulator (ANRT's board of directors is chaired by the Prime Minister and comprised mainly of Government ministers) and as the main owner of the largest regulated company (Maroc Telecom). The 16% block can be sold once an agreement on the valuation of the company is finalized. The Government is also considering selling about 7-10% of shares in domestic and international capital markets. The process is expected to be completed in the second half of 2004 exchanges (see also the Borrower's Report in Annex 12).

(b) Reinforcing competition in telecommunications infrastructure and services

The outcome of this component is **unsatisfactory**. This rating is motivated by the considerable delay incurred by all measures in this component, with respect to the original timetable. Some concrete progress was achieved only after the closing date of the operation, and especially in 2004. All sector performance indicators that are related to the potential impact of competition in the telecommunications sector are worse than forecasted (see Annex 1, price of international calls and price of international leased lines). Whereas licensing of a second mobile operator in 1999 led to spectacular growth of these services (Figure 1), opening other segments of the telecommunications market -- a central component of the Government's sector development plans supported by IISDL -- by and large did not happen. The schedule for issuing major new licenses in 2001 and 2002 (Annex 10), was not implemented. Only small non-exclusive wireless licenses were successfully awarded in 2000-2002 (see the Borrower's Report in Annex 12 for further detail on these licenses). Following a market study by McKinsey and Co. and an invitation for expressions of interest in the major licenses in March 2001, it was decided to issue only a single SNO license combining fixed local, long distance, and international voice and data services. The invitation for bids was successively delayed until June 2002 in view of slow progress towards amending the telecommunications law and the long time taken by an administrative commission in charge of approving the license conditions (*cahiers des charges*). Fifteen companies bought the bidding documents. The closing date to receive bids was set for October 8, 2002 and extended to November 5 at the request of prospective bidders.

Figure 1



In the end, no bids were received for the SNO license. There is broad consensus on the reasons for this failure: (i) narrow scope of the license (fixed service only); (ii) nonviable roll-out and coverage obligations and lack of access to alternative infrastructures; (iii) a new reference interconnection offer (RIO) from Maroc Telecom had not been finalized and the draft raised major concerns on key technical and pricing aspects; (iv) changes in the telecommunications law were still underway; and (v) implementing regulations on universal service were not in place. These defects, largely of the Government's and ANRT's own making, were compounded by the general downturn of international capital markets. These shortcomings are in great part acknowledged by the Government in its Borrower's Report (Annex 12).

Moreover, effective competition failed to develop even in markets that were already nominally open without quantitative entry restrictions, especially data and Internet services. From about 100 Internet service providers (ISPs) registered with ANRT in 2000, only three remain in business today. Maroc Telecom, a latecomer to Internet services, extended its market dominance to this new segment, of which it now has over 70% of all accounts. The number of ISPs per million inhabitants in Morocco, already lower than in other countries in the year 2000, was reduced even further in 2001 and the number of Internet users stagnated (Figures 2 and 3). Slow growth and lack of alternative suppliers is likely to be hurting information-intensive business users in all sectors of the economy, discouraging foreign investment, and inhibiting development of new information services with considerable employment generation potential.

Figure 2

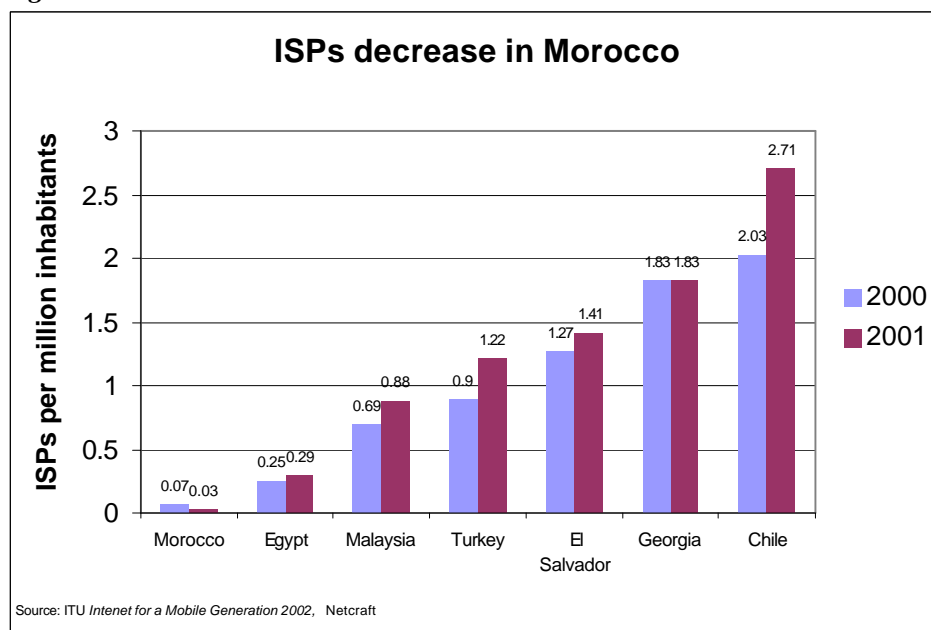
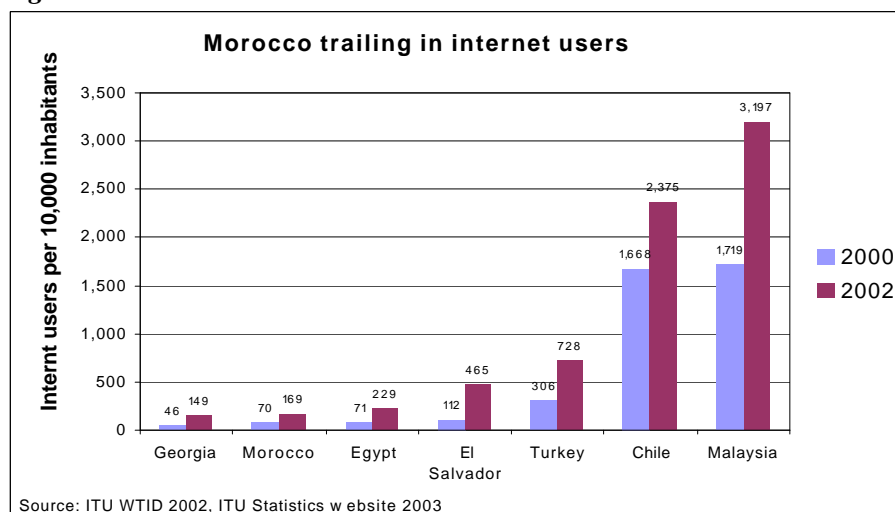


Figure 3



A major factor in slow data and Internet growth has been the lack of effective competition in the provision of the underlying infrastructure. Maroc Telecom's published prices for international leased circuits remain far above the levels expected at appraisal and several times higher than those prevailing in Europe and in competitive developing country markets (see Annex 1). This results in Morocco having the highest Internet access prices (relative to income) in the Middle East. The UNDP Arab Human Development Report indicates that Internet access prices in Morocco are now by far the highest in the Middle East relative to GDP *per capita*, and a serious bottleneck to the diffusion of the Internet in Morocco. VSAT services by new operators are inherently too costly to put downward pressure on wholesale prices of leased circuits for public use. Méditel's license limits use of its international gateways only to its own clients and also prevents it from leasing its infrastructure to other operators.

Large spare domestic and international transmission capacities that could be made available by parastatal enterprises (especially ONE and ONCF, the electricity and railway companies, respectively) were not allowed to be used to provide public telecommunications services. An amendment to Law 24-96 (Law 55-01) that opens the way for the use of such alternative infrastructures, expected to be approved by the Council of Government in September 2001 as an effectiveness measure of the Loan, was approved only in June 2003 and by the Council of Ministers in April 2004. Likewise, lack of competition and unbundling of the local networks has limited flexibility in the provision of corporate data and Internet services and kept wholesale call charges high.

Competitors also point out alleged anticompetitive practices by Maroc Telecom, including price squeezing and predatory pricing. In response to a complaint filed in 2002 by MarocConnect, the main independent ISP, ANRT required Maroc Telecom to offer independent ISPs transit and interconnection terms similar to the ones it applied to Menara, its own ISP branch, for the provision of dial-up Internet services. Another ANRT ruling in 2003 on ADSL (a type of broadband customer access to ISPs using phone lines) again found for the complainants and ordered Maroc Telecom to decrease transit charges to competitors, offer volume discounts, or increase its own retail prices, ranging between 15% and 40%.

The problems underlying slow Internet development and lack of effective competition may, however, be more complex than suggested above. Maroc Telecom points out that there are tradeoffs between sustaining infrastructure development and promoting competition. The business model used to successfully launch mobile services, it argues, now undermines the fixed network – without which Internet and other advanced communication and information services cannot reach the public at large. A detailed analysis of telecommunications competition in Morocco goes beyond the limited scope of this ICR. This analysis is currently being undertaken by ANRT in preparation for further liberalization.

To the Government's and ANRT's credit, a serious effort to relaunch the liberalization process has started in 2004, and should provide concrete options to increase competition in the sector by the end of the year. In addition, the Government has examined carefully the reasons for the failure of the SNO. In preparation for approval by the Parliament of the amendments to the telecommunications law, ANRT has prepared a package of new regulatory decrees that would implement those amendments and address several of the shortcomings of the existing regime. This includes, for example, vesting in ANRT the authority to monitor and act against anti-competitive behavior, providing a framework for the development of alternative infrastructures, setting the basis for launching a universal service program, and establishing the rules for sharing rights of way and other physical infrastructure. At the ANRT's request, the Bank reviewed and commented on this package in April 2004.

(c) Expanding access to services at reasonable prices for all segments of the population

This component is rated **unsatisfactory**. Little progress was been made during the IISDL towards setting up a financing mechanism to extend telecommunications services to places and users that are not commercially viable on their own. A draft amendment to the telecommunications law (Law 55-01 amending Law 24-96), approved by the Council of Government in June 2003 (two years behind schedule) and by the Council of Ministers in April 2004, would enable the establishment under the *Loi Organique des Finances* of a special account into which the universal service contributions of the operators would be paid. A draft decree with such regulations, which had been prepared by ANRT as a measure of Board presentation of the Loan and was to have been approved by the Council of Ministers by the end of 2001, was never processed.

In the meantime, the solution envisaged by the Government and the Bank for universal service has now been overtaken by events. First, the impressive growth of mobile services has increased coverage of basic

voice communications in Morocco to about 96% of the population countrywide. Network roll-out, which was the main focus of the original approach to universal service, is no longer the main issue. Moreover, pre-paid mobile has reached many low-income users that could not obtain conventional fixed or mobile services because they are not creditworthy, cannot commit to a fixed monthly bill, and need close control of calling expenditure. Prepaid call charges, however, remain very high and most of these users receive many more calls than they generate, so call initiation from low-income users remains an issue.

Second, access to the Internet, information services, and information technologies, rather than just voice communication, is increasingly recognized as necessary for economic development. Even after existing barriers to entry and competition in these services are removed (see Section 4.2(b) above), a gap is likely to remain between what operating companies are prepared to do on a commercial basis alone and what the Government may want from a broader development viewpoint. The Government had planned to submit to Parliament by the first quarter of 2002 an amendment to the Law 24-96 that would have expanded the scope of universal service beyond telephony, but this has not materialized and is not part of the amendments currently being processed. The Bank agreed to declare IISDL effective, even though this amendment to Law 24-96 was an effectiveness measure. The Bank's rationale was that in absence of clear rules to govern universal service, a broadened definition risked opening the way to *ad hoc* political slush funds.

As part of the package on decrees to implement the new amendments to Law 24-96, ANRT has drafted a new decree that established the basis for launching a universal service program that reflects these changed circumstances. Implementing regulations should follow.

(d) Reinforcing the telecommunications regulatory framework

The outcome of this component is overall **satisfactory**, although progress has been much slower than expected. An amendment to the telecommunications law that replaced *ex-ante* financial control of ANRT by *ex-post* control, was approved by Parliament before Board presentation of IISDL and was enacted on time in June 2001. ANRT continued to build its professional competencies, internal and consultative processes, and a body of specific results. Amendments to Law 24-96 that would permit ANRT to impose graduated sanctions and allow alternative telecommunications infrastructures, a measure of IISDL effectiveness, were approved by the Council of Government only in June 2003 and by the Council of Ministers in April 2004 and have yet to be passed by Parliament. A ministerial decree adjusting spectrum fees to reflect the cost of spectrum management and regulation, expected to be in force by the third quarter of 2001, was approved by SEPTI and the Ministry of Finance and sent to the Secretary General of Government only in early 2003 and has not yet been cleared.

Information Society

The objectives of the Information Society components (components e-g below) were achieved, and their outcomes are **satisfactory**. Most of the progress, however, was concentrated in the last 12-18 months, after SEPTI was incorporated into the Ministry of Industry, Trade and Telecommunications.

(e) Developing an adequate legal and regulatory framework for information technology and promoting the development of electronic commerce

The first measure supported by the operation was the drafting of a bill on electronic signature and certification. The Government prepared a draft which incorporated good international practice, supported

by technical assistance provided under the operation. While a final draft for the bill was prepared in August 2000, it is still with the Secretary General of Government and the draft is still to be submitted to the Council of Government.

(f) Developing inter-administration networks

In the area of e-government, the objectives set in the operation (launch of a pilot project for Administration-on-line) were exceeded. The pilot project (GIPE) was successfully launched. In addition, the progress achieved in the area of e-government has been substantial. The Government has created a steering committee, led by the Ministre des Affaires Générales du Gouvernement, and including the Minister for Industry, Commerce and Telecommunications, the Ministry of Communications, and the Minister for the Modernization of the State. Several administrations developed e-government applications, including the Ministry of Justice (*Projet e-Justice*), the Ministry of Industry, Trade and Telecommunications, the Ministry of Finance (*e-Finance*, and applications in areas such as trade facilitation and personnel management for the State, among others), and the Ministry of Interior. The Government of Morocco is also assessing the development of platforms to deliver these electronic services to the public, including the wilayas, the Centres Régionaux d'Investissement, the Chambers of Commerce, and BAM. These institutions, and others, can play different roles in the delivery of electronic services to the public. The development of adequate and integrated platforms for the delivery of e-government services is critical. Given the scarce Internet penetration in Moroccan households, the citizenry will need public access points and specific trained personnel to have access to and benefit from e-government applications.

With regard to e-government applications in the justice sector, this operation was a complement and will benefit from the positive results achieved under another Bank operation, the Legal and Judicial Development Project, which supported several specific databases and applications (e.g., case management and registries of commerce).

(g) Promotion of ICT-related application through public-private partnerships and integration of certain traditional sectors in world commerce

Under the activities of the operation, there was also the effective launch of activities in the Casablanca cyberpark. This took place in June 2001, and today about 130 start-ups as well as established companies are operating in the park, and about 700 jobs were created. The Government is planning a second larger park in the area of Bouznika. We do not have enough evidence to assess how this operation has been actually conducted, whether it had the desired impact on support to the local IT industry, and whether the establishment of the cyberpark is the most cost-effective option for the Government in the area of support to the local IT industry.

Another measure to be achieved during the operation was the signature of agreements to foster use by cooperatives of electronic commerce. A planned measure set at the time of Board presentation was to have 15 cooperatives starting to use e-commerce. As of June 2001, this objective was achieved. In addition, two thematic portals have been developed and are fully operational.

Postal sector

The postal sector component is ranked **satisfactory** overall due mainly to the outstanding improvements achieved by the historical postal operator, Barid Al-Maghrib (BAM). The outstanding performance of BAM is also reflected in the relevant postal indicators (see annex 1). The Government's success in

reforming the postal sector was limited during most of the operation, but momentum was regained toward its end.

(h) Designing a national strategy for the modernization of the postal sector

The Government did not design a sector strategy and did not implement any significant change in the organization of the postal sector during the operation. Lack of political commitment was at the basis of this insufficient progress. Technical assistance consultancies were provided to the Government to assist in the formulation of universal service obligations (Andersen report 2001, Kok report 2001, De Donder report 2002) to be followed by a liberalization strategy. The Government felt the need to run an additional study to be completed by mid-June 2004. This study will take into account the newly available cost accounting information provided by BAM. It is considered by the Government to finalize the draft postal law currently in preparation. The draft postal law currently in preparation is expected to be finalized by the Government by end-2004.

(i) Modernizing the postal operator (BAM)

This has been a notable success. BAM carried out a restructuring and implemented a new corporate strategy and a new investment plan that translated into significant financial improvements (profit has increased at an average annual rate of 14% over this period). There were two main dimensions to the restructuring: a large retrenchment program fully supported by BAM (a staff reduction of 1,000 in 2002 and of a few hundred in 2003, i.e., about 10% of total staff, for a total cost reduction of approximately MAD 280 million); and a decentralization of operations, through the transfer of responsibilities to the regional level.

The new corporate strategy, based on an ambitious investment plan (fully financed by BAM, with an investment envelope that reached MAD 220 million for 2003), is focusing on the development of a customer-oriented action plan and of a number of new products and services aimed at better meeting customer demand, such as hybrid mail, deployment of ATMs, a geographic information system, an address database, etc. Postal access has improved through additional points of contact (see Annex 1, impact indicator on access to postal services), but quality of service improvement has not met the objective of 80% of mail delivered on day 2 after mailing (65%, see Annex 1).

In addition to modernization, the company's relationship with its shareholder has benefitted from the preparation and implementation of a performance contract for 2002-2004, which was a measure for Board presentation. Two years into the performance contract, BAM has met almost all the objectives while the Government met its objectives only partially.

(j) Extending the provision of financial services through the postal network

This activity did not start during the course of the operation. Although terms of reference were drafted early in preparation for the operation (2000), the study started only in November 2003. Two reasons explain this delay: it was difficult to firm up the necessary funding (eventually the study was funded by FADES); and the Ministry of Finance seemed to find the timing of this study inadequate. In spite of the delay, BAM achieved good performance over the period of the operation (amounts deposited in savings accounts increased at an annual rate of 10% over the period).

4.3 Net Present Value/Economic rate of return:

NA.

4.4 Financial rate of return:

NA.

4.5 Institutional development impact:

The institutional development impact was positive but below the expectations originally set during preparation. As indicated in 4.1 above, an amendment to the telecommunications law replacing *ex-ante* financial control of ANRT by *ex-post* control, was enacted on schedule in June 2001 (Law No. 79-99 of 22 June 2001, amending law No. 24-96 of 7 August 1997). The amendment abrogated the application to ANRT of standard public sector financial controls and replaced them by semi-annual assessment by a commission of experts and a comptroller designated by the Ministry of Finance. ANRT is also subject to annual external accounting audits. These changes gave ANRT greater flexibility to respond to the rapidly changing demands of the telecommunications sector without diluting accountability to the Government. The operation also supported the adjustment of spectrum fees to the cost of spectrum management and regulation, which strengthened ANRT's ability to make effective use of its financial resources. The operation succeeded in supporting the drafting of amendments to the telecommunications law that would give ANRT the power to impose sanctions, thus strengthening its capability to act as an autonomous arbiter of the sector.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

The international capital markets, for telecommunications as much as for investment in developing countries generally, declined abruptly around 2000. Major telecommunications operating companies, which earlier had been eager to expand into Morocco and other developing countries, started retrenching towards their home markets. New licenses that in the 1990s would have attracted interest became difficult to sell, and the appetite for investing in existing companies decreased. Moreover, the better business opportunities had already been taken up in earlier years, and new ones were intrinsically less attractive. Expectations based on past success misled governments, including the Government of Morocco, to demand high prices or impose excessive obligations on operations.

This turn of events in international markets was compounded in the case of Morocco by structural changes within the Vivendi Group, which moved to the brink of bankruptcy. Uncertainty regarding whether Vivendi would sell its stake in Maroc Telecom or instead keep it and increase its participation cast doubts among investors on the future ownership and management of the company.

5.2 Factors generally subject to government control:

The Government postponed its plans to further divest its ownership interest in Maroc Telecom. An initial public offering in Casablanca and foreign markets, which had been planned for 2002, is now being considered for 2004. The Government's option to sell 16% of shares to Vivendi is still outstanding, pending agreement on the sale price which will be negotiated on the basis of company valuations currently being

prepared by financial advisers to both parties. Sale of shares to Maroc Telecom employees has likewise been deferred, partly reflecting little interest from the employees themselves, who at the time of privatization mostly opted for cash bonuses rather than shares, and partly because lack of market signals on share prices (see also Section 4.2(a)).

Shortcomings in the design of the SNO license is regarded by most observers as a key factor that resulted in lack of investor interest in this license (see Section 4.2(b)). It is unclear why ANRT, which had so successfully prepared and carried out the award of the second mobile license in 1998, failed to produce an attractive design for the second fixed license. As ANRT became more burdened with increasingly difficult and contentious regulatory issues, the Government increasingly intervened in its decisions, and tensions arose between the Government's regulatory and ownership interests, one may speculate that the balance of forces shifted away somewhat from economic and technical design towards political considerations and compromises.

The Government's policy on the development of postal financial services was not completed due to the delay in launching the feasibility study (see Section 4.2(j)). Resources to fund this study were allocated at a very late stage of the operation, for which the Ministry of Finance is partially responsible.

5.3 Factors generally subject to implementing agency control:

Although ANRT drafted the licenses for Maroc Telecom and the SNO, they were finalized by the Government. The elaboration of an action plan to issue multiple licenses and meet liberalization objectives were under ANRT's responsibility, even though the decision to combine several licenses into a single SNO license was taken by the Government. ANRT, within the limits of its regulatory attributions and powers, had some control over and responsibility for the oversight of the competition conditions in the Internet market.

In the postal sector, delays in initiating the drafting of the postal law can mostly be attributed to a lack of internal resources within SEPTI, whose staff was insufficiently aware of postal reform issues.

5.4 Costs and financing:

NA.

6. Sustainability

6.1 Rationale for sustainability rating:

Sustainability of sector reform in telecommunications is overall **likely**. A distinction needs to be made, however, between sustainability of achieved results and sustainability of expected results. As concerns the achievements of the operation, they are likely to be sustainable. In particular, privatization of Maroc Telecom is not likely to be reversed. The transformation of BAM into an efficient and technologically advanced corporation is secure in the short term (BAM is financially solid, and it is unlikely that its performance will be threatened by liberalization, which is expected to gradually emerge). In the IT sector the recent e-government developments have good potential, are politically non-controversial, and will likely enjoy the support of the beneficiaries (Moroccan citizens and enterprises).

The outlook for achieving and sustaining other results expected at the time of Board presentation but that

have not materialized is still uncertain. In particular: a) Government may be discouraged from issuing new licenses by the lower prices these licenses will command, compared with the second mobile license and the sale of Maroc Telecom; b) developing more effective competition in the data and Internet markets, where Maroc Telecom now dominates, will require sustained political commitment to reform and to ANRT; and c) the conflict between the Government's interest as head of the regulatory authority and owner of the dominant regulated company continues to limit the extent to which anticompetitive behavior can be contained.

Amid these constraints on further progress of sector reform, there are positive signs. For example, notwithstanding the absence of a prospect for large windfall revenues from the sale of licenses, the Government has publicly restated its commitment to building up competition. This commitment is confirmed in the Borrower's Report to this ICR (Annex 12) and by the current effort of ANRT to relaunch the process to award new licenses. In addition, new draft regulations have been prepared on competition and access to essential infrastructure. Finally, the Board of ANRT has decided to change the composition of the Comité de Gestion (Board of Directors) of ANRT.

6.2 Transition arrangement to regular operations:

NA.

7. Bank and Borrower Performance

Bank

7.1 Lending:

Although there are some positive features, the Bank's performance during project preparation was overall **unsatisfactory**. There are three main reasons for this assessment:

- *One-tranche design of the operation.* The Bank's MENA management required, only a few months before Board approval that the IISDL, designed in two tranches, be restructured as a one-tranche operation. Management's decision was endorsed and praised by QAG. This decision weakened the Bank's leverage on the reform program, specifically on the key components of the operation now rated unsatisfactory, and heavily affected implementation (see also Section 3.5). For example, the request for expressions of interest for the award of multiple network licenses was a Board presentation measure and a second tranche measure would have explicitly detailed the license terms. This decision to collapse from two to one the number of tranches was also combined with a decision by Management to keep a FY01 Board presentation date (May 31). The effectiveness measure was the only tool available to continue the dialogue after Board approval, but it was a narrow avenue to support broader sector reform.
- *High costs and insufficient focus in design of the operation.* Total preparation cost reached US\$823,000, of which US\$668,000 financed from the Bank's budget, US\$19,000 from PHRD, and US\$36,000 from other sources. This is three times the preparation cost for TPI-SAL, the previous successful telecommunications adjustment operation in Morocco (total US\$266,000, of which US\$166,000 from Bank budget and US\$100,000 from other sources). In terms of the Bank's budget, IISDL was four times more expensive than TPI-SAL and about one and a half times as expensive as the MNA regional average of US\$416,000 for adjustment operations between FY99-03. A contributing factor was excessive spending on the postal financial services component (approximately US\$47,000) at a time when the Government was not ready to tackle such controversial reform, and conflicting

interests put this component at odds with the rest of the operation while diverting time and resources from more important components. The multisectoral design of the operation, encompassing post, telecommunications, and information technologies certainly had merits, due to the interdependence of these three sectors. However, the design should have focused on fewer measures with a stronger impact.

- *Inappropriate preparation timing.* The team started preparing IISDL in March 1999, when the previous adjustment operation (TPI-SAL) was still ongoing. Preparation of IISDL started, respectively, ten months and twenty-two months before the expected and actual date of disbursement of the second tranche of TPI-SAL. This had three adverse consequences: a) it increased preparation costs and time; b) the team was rushed into identifying measures to fit into the design of the operation, without allowing time for the Government, the Bank, and major stakeholders to develop a solid reform path in the course of the TPI-SAL underway; and c) the two tranches were reduced to one tranche on short notice late during project preparation, which did not match the objectives and risks of the reforms being supported.

These three major faults in project design could not be fully compensated by other *positive* features of project preparation, namely:

- *Close working relationship with African Development Bank.* ADB maintained the structure of their operation in two tranches, which gave the World Bank team some opportunity to jointly supervise the overall program and have some minimal leverage through their second tranche. The two teams worked well together, and supported each other in the various phases of the program, continuing a relationship successfully started under TPI-SAL.
- *Intense sector dialogue.* The team provided high-level comments on the license and tender documents for the privatization of Maroc Telecom. These comments were taken into account by the Government and helped improve the license text. The team also engaged in a dialogue, then successfully continued during supervision, on all major aspects of sector reform, including competition, regulatory reform, rural access, and postal and IT strategy. As a result of the ongoing sector dialogue, the Bank is trusted by our Moroccan counterparts as a serious and credible interlocutor;
- *Provision of high quality technical assistance.* Grant technical assistance was provided in the areas of e-commerce regulation, e-government, and postal sector reform. A specialized European law firm assisted SEPTI in drafting the law on digital signature, which incorporates good international practice. In the area of e-government, technical assistance was provided at the design stage. In the postal sector reform area, technical assistance was provided to the Government to prepare a postal sector policy.

7.2 Supervision:

Overall project supervision performance was **satisfactory**. The supervision team placed an effort in keeping the policy dialogue open through the provision of comments on the amendments to Law 24-96 and through intense discussions on competition and regulatory reform. Use of budget resources by the supervision team was appropriate.

The comments of the Bank team to an earlier version of the amendments to Law 24-96 contributed, together with other factors (internal political pressure), to a substantial improvement of the draft, in which the amendments that would have seriously compromised ANRT's autonomy were eliminated.

7.3 Overall Bank performance:

Overall Bank performance was **satisfactory**, due to : a) numerous efforts of the project team during preparation and supervision to maintain a robust policy dialogue, notwithstanding constraining management decisions and a deteriorating institutional environment in Morocco; and b) high-level expert advice and technical assistance provided throughout preparation and supervision of the project.

Borrower

7.4 Preparation:

The Borrower's performance during preparation is rated as **satisfactory** overall. The operation was tied to the broad strategic reform objectives of the Government. The Government demonstrated commitment and credibility in privatizing Maroc Telecom, which elicited investor interest. During the privatization of Maroc Telecom, however, some initial signs of deterioration of the institutional environment occurred. On some occasions, the Government tried to stifle ANRT's autonomy. For example, ANRT originally drafted the *cahier des charges* of Maroc Telecom along three different licenses, for fixed services, mobile, and Internet. ANRT was correctly convinced that this structural separation would have reduced the risk of anticompetitive behavior, and would have allowed better monitoring by ANRT of Maroc Telecom's activities in the different market segments. However, the Government overruled ANRT's decision on the three licenses.

7.5 Government implementation performance:

Overall Borrower's performance during implementation is rated **satisfactory**, even though it presented some shortcomings. The basis for the rating is the following: a) after a slow start, the implementation of the reform process in postal and IT services was satisfactory, under the leadership of the Ministry of Industry, Trade and Telecommunications; and b) credit needs to be given to the Government for having identified the institutional conflict between SEPTI and ANRT as an obstacle to implementation. The Government's decision to incorporate SEPTI into the Ministry of Industry, Commerce and Telecommunications helped substantially to accelerate sector reform in these areas.

The following shortcomings reduced Government implementation performance: a) attempts to stifle ANRT's autonomy, as shown by the draft law approved by the Council of Government and submitted to the Bank in a letter from the Government dated December 14, 2001 (the draft was later revised due largely to specific Bank inputs); b) institutional conflict, as shown, for example, by serious differences between ANRT and the Government on the text of Maroc Telecom's license and the text for the SNO; c) poor design of the SNO license (see Section 4.2(b)); and d) substantial delay in enacting changes to the telecommunications law (see section 4(d) above).

7.6 Implementing Agency:

ANRT's performance was overall **satisfactory**. For example, ANRT initially proposed to the Government draft licenses for Maroc Telecom and the SNO that would guarantee fair competition conditions in the telecommunications market and attract investor interest. However, ANRT's effectiveness has declined in recent years. After an impressive start that contributed in a decisive manner to the successful award of the second mobile license, ANRT found increasing difficulty in carrying out its functions. The effectiveness of ANRT increased again in 2003-2004, due a renewed impetus in promoting liberalization, and to a

proactive role in tackling key sector shortcomings, such as fair competition, access to essential infrastructure, and universal service.

SEPTI's performance in the postal sector was **unsatisfactory**, as sector reform at a policy level did not advance. The delay in preparing the new sector law was mainly due to a lack of resources made available to SEPTI's postal team as their work was probably viewed as a secondary priority after telecommunications reform.

BAM's performance in modernizing the company was **highly satisfactory** (see Section 4.2(i)).

SEPTI's performance in information technologies was **satisfactory**, as concrete progress occurred especially after SEPTI was incorporated into the Ministry of Industry, Commerce and Telecommunications. For example, SEPTI's staff had prepared a very satisfactory draft e-commerce law, incorporating good international practise, as early as 2000. It was the Government's political decision not to advance this draft until recently, after SEPTI was brought into the sector ministry.

7.7 Overall Borrower performance:

Overall Borrower performance was **satisfactory**, due to the broadly positive performance of the implementing agencies. Overall, ANRT's performance was broadly positive and SEPTI's performance in IT improved during the life of the project. BAM's efforts in modernizing the company were highly satisfactory. The Government's commitment to advancing sector reform, however, showed limited results, especially in the competition and regulatory reform areas. The recent institutional change, which incorporated SEPTI under the Ministry of Industry, Trade and Telecommunications substantially improved Borrower's performance.

8. Lessons Learned

Adjustment lending in itself, with its focus on policy dialogue and reform, is an appropriate tool to engage a government in telecommunications sector reform, when the project supports a champion or proponent of reform within the government. But support needs to be broadened in order for reforms to be sustainable. This is the experience of the previous adjustment operation (TPI-SAL), and of the privatization component of IISDL. The renewed interest in the IT component is also related to the interest and commitment of the new Minister of Industry, Trade and Telecommunications. For two years, IISDL implementation had no clear champion of reform, and delays occurred. While the identification of a clear leader is a legitimate tool to jumpstart reform, it may need to be complemented by broader stakeholder participation and buy-in to be sustainable. The experience of IISDL also indicates that the effectiveness of adjustment operations can be increased if technical assistance is available to assist in the design and implementation of the reforms.

The risk that personal conflicts may affect the course of reform should be mitigated through solid institution building and transparent processes. During the implementation of IISDL, personal relationships, more than the institutional setting, played a crucial role in fostering and then stopping reform (this is also consistent with existing studies on telecommunications reform in Morocco. See Wilhelm and Mueller, 2003, and Tosi Hibon, *Critique Internationale*, January 2002). In addition, the experience of IISDL and TPI-SAL indicate that reforms related to transactions with a large "price tag" are more likely to activate the necessary political interests and incentives for change to take place. This experience indicates some lessons for future assistance in fostering regulatory reform in telecommunications: (i) under IISDL an even higher

emphasis should have been put on transparent decision making processes, requiring the involvement of the private sector and of the beneficiaries of reform in project design; (ii) because the risk of personal and institutional conflict is a serious challenge to the sustainability of reform, sector dialogue should be focused on eliminating the roots of the conflict of interest for the Government, and minimizing the occasions for personal conflict to arise. The establishment of ANRT as an autonomous entity could have been accompanied by the merger of the sector ministry in a larger Ministry. The Bank could have placed a stronger emphasis on separating the dual interest of the Government as owner of Maroc Telecom, and members of the Board of ANRT (some ministers still sit on both boards) before supporting the privatization transaction.

When supporting privatization of a state-owned enterprise in a non-competitive sector, consideration should be given to accompanying measures that may be required to monitor and mitigate the risks of consolidation and abuse of dominant position. Privatization always has the risk of reinforcing the dominant position of the incumbent operator in the sector. In this sense, the Bank supported sector reform through the previous TPI-SAL which focused on the establishment of competition in the cellular market before privatization of the incumbent. Privatization should be accompanied, or preceded, by credible measures aimed at strengthening competition. In IISDL, the award of new licenses (under the old second tranche of the operation) was meant to provide this safeguard (see Annex 11). When moving to a single tranche operation, other measures could have been considered that could have limited the anticompetitive developments that took place in the Internet and data markets. These could have included: (i) measures that allowed for the monitoring and sanctioning of predatory pricing and cross-subsidies; (ii) detailed provision of enforcement instruments to allow the regulator to sanction anticompetitive behavior; and (iii) introduction of full competition in international voice and data communications in conjunction with the privatization transaction.

In the postal sector as in many infrastructure sectors, governments and incumbent operators tend to overstate the importance of universal service costs. The Bank should have been more firm in suggesting gradual liberalization, while carrying studies to assess the cost of universal service. With limited resources for building up postal expertise within the administration, policy makers are slow to initiate reforms on the grounds that they lack market structure and cost information. Incumbents should not be the sole source of information and policy dialogue.

9. Partner Comments

(a) Borrower/implementing agency:

In the postal sector, SEPTI has: a) supported and encouraged BAM to increase its operational, managerial and technical performance; b) undertaken a study on the cost of postal universal service, and c) prepared a draft postal law. SEPTI is also part of the steering committee for the study of the Ministry of Finance and Privatization on postal financial services.

In the area of telecommunications, the Government has awarded to private investors a second GSM license, three VSAT licenses, seven GMPCS licenses and two 3RP licenses (radio trunking). It made an effort to award a Second National Operator license, but it was not able to attract investor interest. The following actions were also undertaken: a) improvements in the regulatory framework; b) a new technical and tariff interconnection offer to Maroc Telecom's fixed network; c) a strategic study on sector liberalization; d) successful opening of the capital of Maroc Telecom; and d) development of GSM and Internet platforms.

In addition, Morocco is about to finalize a Free Trade Agreement with the USA with the aims of: a)

harmonizing national regulation with international trends; b) increasing competition in the sector; c) attracting investment; d) enhancing competitiveness of domestic firms; and e) strengthening the role of Morocco as a regional platform in telecommunications.

In the area of IT, considerable progress was achieved in the following areas: a) the Technopark (the Technopark has attracted over 130 ICT companies, operates close to full capacity, and has developed new services and international events to support Moroccan ICT firms); b) the Bouznika Technopole (finalization of the feasibility study, negotiation with private groups for the management of the Technopole, etc.); c) e-commerce (implementation of an e-commerce platform through open and competitive bidding; market studies; draft laws on electronic signature, data messages, and privacy); d) e-government (studies to establish an ICT observatory; studies and other activities to implement a national portal and municipal portals; implementation of a management system for pilot administrative procedures; an Intranet system for the Government; and a pilot interconnection platform for e-government); e) establishment of digital public access points; f) digital content development; and g) development of the Marwan network.

(b) Cofinanciers:

The African Development Bank has transmitted the following comments:

The IISDL program did not achieve the same success as the previous TPI-SAL operation. This operation, for which the second AfDB tranche has not been disbursed less than one month from project closing, has been hindered by the following factors:

- 1) The great success of the previous operation and a favorable international environment did not allow the parties to have enough perspective to address all the problems related to sector reform in the country, and also did not allow them to have a broader idea on the evolution of the international market in telecommunications. The launch of the IISDL operation well before the conclusion of the previous adjustment program reflects the considerable optimism of all parties at the time of project preparation;
- 2) The government has slowed down in the implementation of the agreed reforms. The success of the previous operation generated considerable international and national interest in the three subsectors, resulting in different views on how the reforms should be carried out, especially in the context of an unfavorable international environment. The delay in the implementation of regulatory texts and the content of the bidding documents for the second fixed license reflect this situation.
- 3) The short timeframe for the implementation of the program did not allow the necessary time for continuing the necessary policy dialogue. A longer timeframe would have perhaps made possible the implementation of the second tranche measures of the ADB operation.

(c) Other partners (NGOs/private sector):

NA.

10. Additional Information

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
Percentage of the population with access to a phone (fixed, cellular, payphones)	96% (2003)	96% (2003)
Number of lines outside 2 main cities	1,010,000 (2003)	617,135 (2002)
E-commerce development : revenue of domestically generated and processed e-commerce transactions (US\$ millions)	50 (2003)	E-commerce is still at a very early stage in Morocco. Estimates based on Royal Air Maroc and Maroc Telecommerce turnovers indicate that the volume of e-commerce transactions is still below US\$1 million.
Access to Postal services : Number of postal counters per 10,000 inhabitants :		
- in urban areas	1.00 (2003)	1.13 (2003) /2
- in rural areas	0.92 (2003)	1.03 (2003) /2
Percentage of the employees of the public administration connected to inter-administration networks	10% (2003)	0%, as the inter-administration networks are still being established on a pilot basis.

¹ End of project. Note that the figures in the second column are forecasts from the President's Report.

² These estimates were provided after those listed in the final PSR.

Output Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
Internet Users : number of dial up and dedicated line customers	1,000,000 (2003)	800,000 (2003)
Price of International calls : price of 3 minute phone call to Paris Plein Tariffs	\$0.28 (2003)	\$1.05 (2003)
Price in US\$ of international leased lines (2 Mbps month) to London	\$2,000 (2003)	\$25,000 (2003)
Fault rate : number of faults per 100 lines per year	12 (2003)	19.5 (2002)
Usage of Postal services : yearly increase in traffic volume of letter mail per inhabitant	2% (2003)	1.53% (2002)
Usage of Postal Services : yearly increase in traffic volume of national express	20% (2003)	16.5% (2002)
Postal financial services : yearly increase in total deposits	10% (2003)	11.0% (2003)
Letter mail : percent delivered on day 2 (from end to end)	80% (2003)	65.0% (2003)
Postal productivity : annual increase in value added per employee	3.41% (2003)	24.0% (2003)
Postal sector investment : volume of net investments (in thousands of DH)	210,250 (2003)	218,000 (2003)

¹ End of project

The figures in the second column are forecasts from the President's Report.

Annex 2. Project Costs and Financing

Not applicable as this was an adjustment operation.

Annex 3. Economic Costs and Benefits

Not applicable as this was an adjustment operation.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
			Implementation Progress	Development Objective
Month/Year	Count	Specialty		
Identification/Preparation				
03/20/1999	5	1 Sector Manager, 1 Task Team Leader, 1 Regulatory Economist, 1 Postal Consultant, 1 Economist		
07/25/1999	10	1 Sector Manager, 1 Task Team Leader, 1 Lead PSD Specialist, 1 Telecommunications Advisor, 1 Telecommunications Specialist, 1 Postal Financial Expert, 1 Regulatory Economist, 2 Postal Specialists, 1 Program Assistant		
09/25/1999	2	1 Telecommunications Advisor, 1 Regulatory Economist		
11/22/1999	7	1 Task Team Leader, , 1 Lead PSD Specialist, 1 Telecommunications Advisor, 1 Regulatory Economist, 1 Postal Policy Specialist, 1 Postal Financial Expert, 1 Financial Sector Specialist		
03/10/2000	7	1 Sector Manager, 1 Lead PSD Specialist, 1 Task Team Leader, 1 Telecommunications Advisor, 1 Regulatory Economist, 1 Postal Policy Specialist, 1 Postal Financial Expert		
Appraisal/Negotiation				
05/24/2000	4	1 Task Team Leader, 1 Lead PSD Specialist, 1 Telecommunications Advisor, 1 Regulatory Economist		
01/19/2001	2	1 Sector Manager, 1 Lead PSD Specialist		
03/30/2001	5	1 Lead PSD Specialist, 1 Regulatory Economist, 1 Postal Policy Specialist, 1 Postal		

Supervision			Consultant, 1 E-government Consultant		
	05/10/2002	3	1 Task Team Leader, 1 Postal Policy Specialist, 1 Telecommunications Specialist	U	S
	08/10/2002	2	1 Sector Manager, 1 Task Team Leader	S	S
	12/16/2002	1	1 Sector Manager	S	S
	06/28/2003	3	1 Task Team Leader, 1 Telecommunications Specialist, 1 Postal Policy Specialist	S	S
ICR	10/27/2003	4	1 Task Team Leader, 1 Telecommunications Specialist, 1 Postal Policy Specialist, 1 Program Assistant	S	S

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ ('000)
Identification/Preparation	151	718
Appraisal/Negotiation		
Supervision	9	149
ICR	12	68
Total	172	935

The SAP system combines the data for Appraisal/Negotiation with Identification/Preparation. An additional amount of \$226,000 in trust funds was utilized prior to project supervision.

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	<u>Rating</u>				
<input checked="" type="checkbox"/> <i>Macro policies</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Sector Policies</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Physical</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Financial</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Institutional Development</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Environmental</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA

Social

<input checked="" type="checkbox"/> <i>Poverty Reduction</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Gender</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Private sector development</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Public sector management</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance

Rating

<input checked="" type="checkbox"/> Lending	<input type="radio"/> HS	<input type="radio"/> S	<input checked="" type="radio"/> U	<input type="radio"/> HU
<input checked="" type="checkbox"/> Supervision	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
<input checked="" type="checkbox"/> Overall	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU

6.2 Borrower performance

Rating

<input checked="" type="checkbox"/> Preparation	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
<input checked="" type="checkbox"/> Government implementation performance	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
<input checked="" type="checkbox"/> Implementation agency performance	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
<input checked="" type="checkbox"/> Overall	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU

Annex 7. List of Supporting Documents

1. Draft cahier des charges for IAM (Maroc Telecom), 2000
2. Report and Recommendation of the President, April 16, 2001
3. Country Assistance Strategy, May 7, 2001
4. Quality at Entry Assessment, June 2001
5. Implementation Completion Report for Telecommunications, Post and Information Technology Sector Adjustment Loan, June 21, 2001
6. Project Aide Memoires
7. Project Supervision Reports (PSRs)
8. Back to Office Reports
9. Loan Agreement, April 12, 2002
10. Law No. 79-99 of 22 June 2001, amending Law No. 24-96 of 7 August 1997.
11. Law No. 55-01 (draft) as adopted by Conseil des Ministres on 16 April 2004, amending and completing Law No. 24-96 of 7 August 1997.
12. ANRT, Analyse de l'Offre ADSL d'IAM, Synthese de l'Etude, undated
13. ANRT, Rapport d'Activité 2002
14. Kok report - "Étude du secteur postal" - April 2001
15. Debbarh and Scher report - "Situation et perspective d'évolution des services financiers postaux au Maroc" - July 2001
16. Andersen Legal report - "Travaux d'études portant sur la stratégie sectorielle de la poste au Maroc" - August 2001
17. De Donder report - "Étude sur le coût du service universel au Maroc" - June 2002
18. Contrat-Programme 2002-2004 entre Barid Al Maghrib et l'État
19. Réalisation du Contrat-Programme pour 2002.
20. Beatrice Hibou and Mohamed Tozy, "La Liberalisation des telecoms au Maroc", in *Critique Internationale--Presses de Science Po*, No. 14, January 2002.
21. Vera Wilhelm and Suzanne Mueller, The Ingredients of Capacity Enhancement. Three Case Studies in Telecommunications. WBI Working Paper
22. Arab Human Development Report 2003. Building a Knowledge Society, New York, 2003.

Additional Annex 8. Sector Performance

Telecommunications

Telecommunications revenues as a percentage of GDP, which were stagnant at 1.90%-2.08% between 1995 and 1998, increased substantially between 1999 and 2002. From 2000 onwards, revenues more than doubled to reach 4.29% in 2002. This growth was mainly due to the introduction of competition in the cellular market. Mobile penetration, following the introduction of competition, increased dramatically, from 0.4% in 1998 to 21.97% in 2003, an incredible 50-fold increase in just four years.

Part of this substantial mobile growth took place at the expense of fixed line penetration. The number of fixed lines, from a peak of 1,472,000 lines in 2000, decreased to 1,127,000 in 2002. As a result, fixed line penetration was reduced from 5.21% in 2000, to 3.8% in 2003. The ratio of mobile to fixed customers went from 0.25 in 2000 to an estimated 5.77 in May 2003.

The increase in mobile penetration drove telecommunications access upwards throughout Morocco. From a total of 1,835,000 customers (fixed and mobile), in 2000, the overall number of customers increased to over 7,637,000 by May 2003. As a result, the waiting list, which was still 0.95% of total connected customers in 1999 at the time competition in mobile was introduced, was eliminated shortly afterward.

A certain degree of tariff rebalancing occurred from 1999. Prices of international calls were reduced from 5.6Dh/min., to 3.5 Dh/min., for a call to Paris. Local rates were slightly increased in 2002, from 0.8Dh/min. to 0.83 Dh/min. Subscription rates were also increased from 60Dh/months to 70Dh/ month in 2002. The fault rate decreased from 32 faults per 100 lines per year to 19.5 faults per 100 lines per year in 2002.

Table 1

Morocco Basic Telecommunications Indicators	1995	1996	1997	1998	1999	2000	2001	2002	2003 (est.)
Telecom revenues as a % of GDP	1.90%	1.90%	1.92%	2.08%	2.47%	3.71%	3.96%	4.29%	
Main lines in operation	1,128,014	1,208,034	1,300,495	1,392,922	1,471,459	1,472,000	1,140,000	1,127,000	1,127,441
Fixed lines per 100 inhabitants	4.3%	4.5%	4.8%	5.0%	5.2%	5.1%	3.9%	3.8%	3.8%
Mobile subscribers per 100 inhabitants	0.1%	0.2%	0.3%	0.4%	1.3%	9.9%	16.7%	20.9%	22.0%
Total density (fixed + wireless customers)	1,157,525	1,250,976	1,374,967	1,503,922	1,835,459	4,324,139	5,996,562	7,325,470	7,637,417
Mobile/fixed penetration	3.0%	4.0%	6.0%	8.0%	25.0%	194.0%	426.0%	550.0%	577.0%
Waiting list as a % of connected subscribers	8.2%	4.0%	2.2%	1.3%	1.0%				
Cost of a local call (in DH/HT)/min					0.8	0.8	0.8	0.83	0.83
Cost of an international call to France (in DH/HT)/min (fixed to fixed)					5.6	4.8	4	3.5	3.5
Monthly subscription charge, residential (DH/HT/month)				60	65	70	70	70	70
% of digital lines	95	98.3	99.3	99.5	100	100	100	100	100
Faults per 100 lines per year					32%	25%	21%	20%	

Source: ITU. Data provided by Rih Nada, Agence Nationale de Réglementation des Télécommunications.

The results of the introduction of competition in mobile communications allowed Morocco to assume a leadership position in the region. Mobile penetration in Morocco in 2002 was three to four times higher than mobile penetration in Tunisia and Egypt. The gap in mobile penetration with other well-performing emerging markets, such as Turkey, Chile and Malaysia, was effectively reduced.

On the other hand, the lack of competition in fixed line penetration, as well as mobile substitution, eroded the performance of Morocco in telephone mainline penetration. Morocco's mainline penetration was 3.8% in 2002, which compares negatively with penetration in Tunisia (11.7%), and Egypt (11.3%).

This lack of progress is also apparent when looking at Internet host penetration. In 2002, the number of Internet hosts was only 0.9 per 10,000 people. The low numbers of two regional benchmarks (Tunisia and Egypt) should not divert the attention from the serious gap that Morocco (and the rest of the MENA region) has in terms of Internet penetration. The number of hosts per capita is about 50 times higher in Malaysia than in Morocco. Turkey has also about 25 times more hosts than Morocco. High leased line prices (Table 4) are a likely factor behind this limited development, which has a potential adverse impact on Morocco's overall competitiveness.

Table 2

2002	Telephone mainlines (per 100 people)	Telephone mainlines per employee*	Mobile phones (per 100 people)	Internet hosts (per 10,000 people)
Morocco	3.8	74	20.9	0.5
Chile	23.0	184	42.8	86.8
Egypt	11.3	122	6.9	3.1
El Salvador	24.1	155	13.8	0.4
Georgia	23.4	72	10.2	5.0
Malaysia	19.0	219	37.7	35.5
Portugal	41.9	236	81.9	290.4
Tunisia	11.7	143	5.1	0.1
Turkey	28.1	270	34.8	28.7

Source: ITU, 2003. Host data are from Network Wizards for January 2003. * 2001 data

Table 3

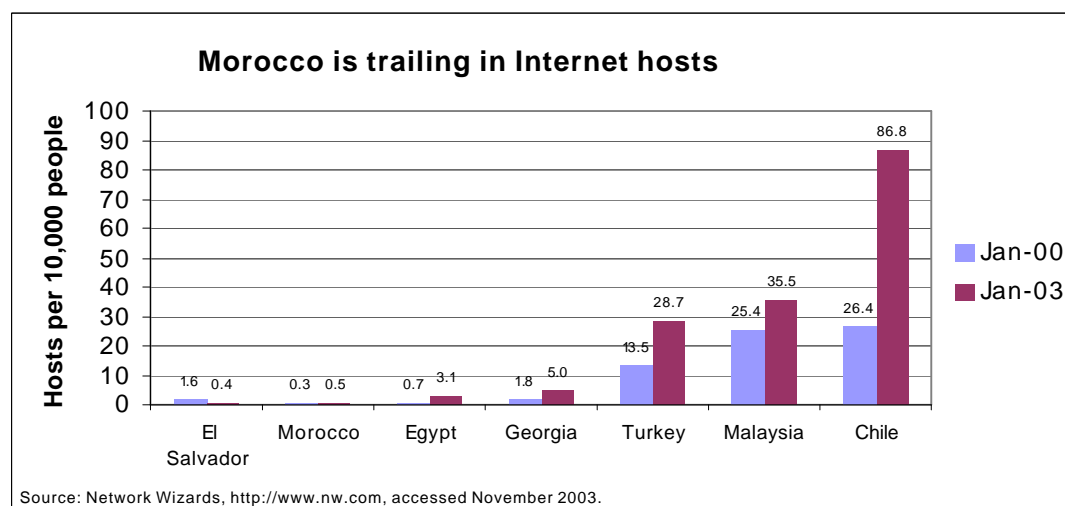
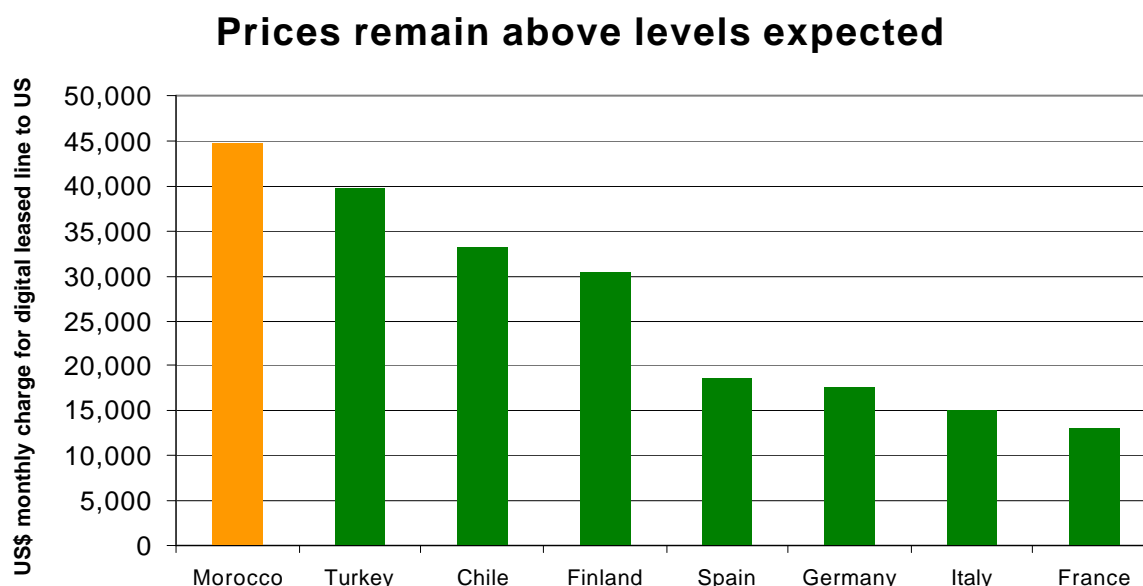


Table 4 - Leased Line Market 2mb Prices



Source: Tarifica, June 2002

Information Technologies

As far as information technologies are concerned, the number of PCs increased in the country, from 85,000 in 1995 to 457,000 in 2002. This brought PC penetration to 15 per 1,000 inhabitants in 2002.

The number of Internet users also increased, thanks to public access points such as cybercafes. But the lack of progress in the ISP market was reflected in the low growth of Internet subscriptions, and especially on the low growth in the number of Internet hosts, as indicated above.

Table 6 - Morocco Basic Information Technology Indicators

Morocco Basic Information Technology Indicators	1995	1996	1997	1998	1999	2000	2001	2002
PCs (per 1,000 people)	3	4	5	7	11	12	14	15
PCs	85,000	100,000	130,000	200,000	300,000	350,000	400,000	457,000
Television receivers	4,095,560	4,245,240	4,367,937	4,466,484	4,568,286	4,784,167	4,861,667	..
Television-equipped households	3,500,000	3,500,000	3,600,000	3,700,000	3,900,000	4,000,000	4,100,000	4,100,000
Internet users	1,000	1,552	6,000	40,000	50,000	200,000	400,000	500,000
Internet users (per 10,000 people)	0	1	2	14	18	70	137	169
Internet hosts	229	468	888	478	801	951	2,454	2,680
ISDN subscribers	0	38	216	612	2397	6728	10000	..

Source: World Bank, World Development Indicators 2003; ITU, WTID 2002, *Birth of Broadband* 2003, ITU Statistics website accessed Nov 2003

The lack of progress in the Internet market had a negative consequence on Morocco's performance in IT compared with regional and international benchmarks (see Table 7). Morocco had 1.54 PCs per 100 inhabitants, compared to 3.06 in Tunisia, 1.71 in Egypt, 4.46 in Turkey, 11.39 in Chile, 14.68 in Malaysia, which is now higher than the number in Portugal, an OECD country.

Similarly, the number of Internet users in Morocco, which has increased during this time period, has

nonetheless lagged behind its international competitors. The number of Internet users per capita in Morocco is lower than the number in Egypt, is three times lower than Tunisia, four times lower than Turkey, fourteen times lower than Chile, and nineteen times lower than Malaysia.

Coupled with the negative performance in the Internet hosts area mentioned above, the deterioration of these basic IT indicators should be of great concern for Morocco's policymakers. Morocco's economic competitiveness, and more broadly Morocco's human development, may be harmed by the lack of progress in the area of IT and Internet diffusion. The insufficient progress in the area of data and fixed line liberalization and the consolidation of market dominance in the Internet market are major reasons for this troublesome delay.

Outside of the telecommunications and IT liberalization area, another commonly monitored IT indicator is the number of students in engineering, mathematics, and computer science per 10,000 inhabitants. Morocco's performance in this area is also negative, if compared with regional and international benchmarks. The number of Morocco's students in these technical fields is 10 times lower than the number in Tunisia and Egypt, and about 80 times lower than the number in Chile and Portugal.

Table 7 - International Benchmarks in IT

2002	Number of PC per 100 inhabitants	Estimated Internet Users per 10,000 inhabitants	Internet hosts (per 10,000 people)*	Students in engineering, mathematics and computer science per 10,000 inhabitants (high school and university)**
Morocco	1.5	168.7	0.5	0.8
Chile	11.9	2,375.4	86.8	61.9
Egypt	1.7	228.5	3.1	8.1
El Salvador	2.5	0.4	0.4	..
Georgia	3.2	6.2	5.0	..
Malaysia	14.7	3,196.9	35.5	..
Portugal	13.4	3,554.6	290.4	63.9
Tunisia	3.1	515.0	0.1	9.0
Turkey	4.5	728.4	28.7	..
Source: ITU, 2003. * Network Wizards Jan 2003. **UNESCO, 2000.				

Postal Sector

Note: No sector data are available for the postal sector as a whole, but only for the incumbent operator Barid Al-Maghrib (BAM). Because the reserved area for BAM's exclusivity covers letter items up to 1kg, its volume data on the letter mail segment covers that entire segment. For the other market segments (mainly parcels and express mail), BAM's data gives only a partial view of sector volume.

The volume of ordinary letter mail has increased on annual average by 4.18% over the 1999-2002 period, which is slightly inferior to the growth of the overall economy over this period (4.5%) but remains a positive result that translated into increased operating revenues of 3.25% per year over 1999-2002 (against 1.4% over the 1995-1998 period), and a number of post-items posted per inhabitant reaching 8.8 in 2000 (versus 7.3 in 1996). Meanwhile express mail provided by BAM has also significantly increased in a competitive environment, growing by an annual average of 18%.

The contribution of the postal sector to the overall economy remains very limited (0.27% in 2002, versus 0.29% in 1999) but universal access has improved, both for postal and financial services. The number of post offices has increased by 14% between 1995 and 2002 (194 new post offices) enabling better access to the network for customers. Home delivery has also slightly improved (68.3% of total households in 2002, versus 65.0% in 1999) while the percentage of population with no delivery has decreased from 15.0% to 11.7% over this period. With respect to postal financial services, savings and giro account deposits have increased significantly between 1995 and 2002, by 86% for savings deposits and 47% for giro accounts. This means that BAM has been able to attract new customers while increasing current deposits in existing accounts.

However compared to international standards, margins of improvement remain to be realized, especially in terms of access. Criteria such as number of inhabitants per postal employee, average area covered by a post office, and number of inhabitants served by a post office remain significantly superior to other countries of the region (Tunisia, Egypt) and to Southern European countries. One of the studies carried out under IISDL (De Donder report - "Étude sur le coût du service universel au Maroc" - June 2002) suggested that in order to meet international standards for postal universal access, the Government should look at extending access, notably through franchised post offices. In addition, quality of service measured as delivery time has not reached the target forecast at Boare approval: only 65% of the letter-items deposited in the postal system are delivered by the next day (see output indicators table in Annex 1). BAM still needs to improve its transport and delivery system in order to achieve a delivery time comparable to international best practice (95% of letter-items delivered the next day).

BAM's financial balance has improved significantly and productivity has picked up over the course of the operation, enabling the company to fund its own investment plan as well as a retrenchment plan that covers more than 1,000 employees. BAM's investments are targeted to development of new services and to improvement in quality of service.

Table 8 - Morocco Basic Postal Indicators

Morocco Basic Postal Indicators	1995	1996	1997	1998	1999	2000	2001	2002
Total postal revenues (US\$ million)	82.5	73.8	88	87.1	100.8	101.4	108.9	113.0
Postal revenues as a % of GDP	.25%	.20%	.26%	.29%	.29%	.28%	.28%	.27%
Total operating and investment expenditures (US\$ million)	109.5	99.7	92.5	83.9	99.4	134.5	127.7	139.7
Profits or losses (revenues less expenditures) (US\$ million)	-27	-25.9	-4.4	3.2	1.4	10.3	14.7	9.2
Total number of postal staff	9,075	8,699	9,064	9,787	8,832	8,973	8,983	8,984
No. of inhabitants per postal employee	2,987	3,175	2,978	2,838	3,170	3,198	na	3,449
Number of permanent offices	1,401	1,425	1,454	1,469	1,498	1,569	1,577	1,595
Average area covered by a permanent office (km ²)	319	313	307	304	298	284	283	280
Average number of inhabitants served by permanent office	19,350	19,382	18,782	18,910	18,851	18,298	18,497	19,428
Number of letter boxes (mailboxes)	3,080	3,234	3,397	3,564	3,737	3,809	3,850	4,022
Average no. of deliveries per day in urban areas	2	2	2	1	1	1	1	1
Average no. of deliveries per week in rural areas	5	5	5	5	5	5	5	5
% of population having mail delivered at home	80%	66%	64%	65%	65%	65%	na	68.3%
% of population without postal delivery	4%	6%	6%	15%	15%	15%	na	11.7%
Average number of letter-post items posted per inhabitant	7.57	7.53	7.76	7.72	7.91	8.78	na	na
End of year assets in postal savings accounts (US\$ million)	396.6	477.9	512.8	582.5	592.9	647.0	658.0	741.0
End of year assets in postal checking accounts (US\$ million)	518.1	489.6	461.1	480.1	575.9	623.0	657.0	764.0
Source : UPU, BAM, WB, IMF								

Table 9 - International Postal Benchmarks

2002	No. of inhabitants per postal employee	Average area covered by a permanent office (km ²)	Average number of inhabitants served by a permanent office	Number of letter-boxes	Average number of deliveries per working day in urban areas	Average number of deliveries per week in rural areas	Percentage of the population without postal delivery	Average number of letter-post items posted per inhabitant
Morocco	3,449	280	19,428	4,022	1	5	11.7	8.78*
Tunisia	1,078	135	7,979	3,861	1	6	0.0	11.68
Egypt	1,722	183	12,820	17,942	1	6	0.0	3.37
Turkey	2,035	174	15,728	79,513	1	1	0.0	12.38**
Chile	2,913	1,851	38,115	860	1	NA	0.0	17.78
Malaysia	1,607	273	19,085	4,726	1	6	0.0	NA
Portugal	611	24	2,622	18,573	1	5	0.0	158.64
Ireland	384	40	2,196	6,200	1	5	0.0	196.24

Source: UPU 2003, accessed Nov 2003 via www.upu.int. * 2000 data. ** 2001 data.

Additional Annex 9. Key Information Infrastructure Progress Measures

Sector and Topic	Achievements at April 2001	Planned Measures assessed at Board Presentation (31 May 2001)	Status at ICR (end-April 2004)
Telecommunications			
<i>Privatization</i>	35% of IAM sold to strategic investor (02/01)	Share sale to employees (2001) IPO on Casablanca and international exchanges (2002); IPO calendar*	In conjunction with the initial privatization in 2001, employees were offered a bonus in cash or shares. There was no subsequent share sale to employees. The IPO was postponed. The Government announced its intention to proceed to an IPO by end-2004.
<i>Liberalization</i>	Launch of services second cellular operator (04/00)	Second international starts international service (01/02)	MediTel started offering international services in March 2002.
	Award 3 VSAT licenses (10/00)		
	Expressions of interest requested for new fixed licenses (03/01)	Launch of tenders for new licenses, including voice as of 2003 (Q3/01)* Award of new fixed licenses (2001-2002)	The original program approved by the Board of ANRT on March 1, 2000 was later abandoned. The Government opted to award only one Second National Operator license in the fall of 2002, which did not elicit investor interest. ANRT is leading a new effort to re-launch the liberalization process, which should lead to the introduction of competition in 2004.
		Award of new international licenses (2002)	

<i>Universal service</i>	License conditions of IAM include specific US obligations (10/00)		
	Amendment to telecom law drafted expanding US definition (02/01)	Amendment approved by government (09/01) and national assembly (Q1/02)	The amendment to telecom law to expand the definition of universal service was not included in the final version of the amendments to Law 24/96 to be approved by the Council of Ministers.
	Decree establishing new US regime drafted (03/01)	Decree approved by Council of Government (06/01)* and Council of Ministers (Q4/01)	There are no plans to submit the draft decree to the Council of Government.
<i>Legal/regulatory framework</i>	Amendment to telecom law drafted inter alia to strengthen ANRT's enforcement powers (02/01)	Amendment, approved by government (06/01) and national assembly (Q1/02), enters into force (Q2/02); substantial progress*	The amendment to give the power to ANRT to impose sanctions was approved by the Council of Government in June 2003, and is expected to be presented to the Council of Ministers.
	Parliament approves bill relaxing financial controls on ANRT (04/01)	Bill enters into force (Q3/01)*	The bill entered into force on 22 June 2001.
		New interconnection offer approved by ANRT (06/01)	Maroc Telecom presented a new interconnection offer to ANRT in 2001. Despite extensive negotiations in 2001 and 2002, an agreement was not reached. A new interconnection offer was approved by ANRT in 2004.
	TOR and funding for	Adjustment of	The decree adjusting

	study on tarification of spectrum rights (04/01)	spectrum fees to cost of spectrum management and regulation (03/02)	spectrum fees to reflect the cost of spectrum management and regulation was approved by SEPTI and the Ministry of Finance and sent to the Secretary General of Government only in early 2003, and has not yet been cleared.
Information Society			
<i>Legislation</i>	Bill on electronic signature and certification drafted (08/00)	Bill approved by Council of Government (Q4/01), Council of Ministers (Q1/02) and Parliament (Q3/02)	Resubmitted to Secretary General of Government in June 2003.
	Selection of Pilot Project for Administration-on-Line (03/01)	Effective launch of pilot project*	Effective launch confirmed in a letter dated 1 August 2003 from Ministry of Finances to ADB.
	Establishment of cyberparks	Effective launch of activities in the Casablanca cyberpark*	Activities in the Casablanca cyberpark launched in June 2001.
	Signature of agreements to foster use by cooperatives of e-commerce	At least 15 cooperatives have started using e-commerce*	At least 15 cooperatives organized into 3 groupements d'intérêt économique have been using e-commerce since June 2001.
Postal Sector			
<i>Legal/regulatory framework</i>	Completion of study on the postal sector (04/01)	Validation of study by SEPTI* Draft postal law covering: universal service, reserved service, liberalization schedule, regulatory body, reform of BAM legal status (Q4/01)	SEPTI initiated an additional study relative to postal universal service; draft law to be finalized upon completion of the new study (end-2004).
<i>Operator/Owner relationship</i>	2000-2004 program contract agreed between BAM and the State providing greater	Signature of program contract (Q2/01)*	Program contract for 2002-2004; annual report on program contract realization for

	transparency in their relationship (08/00)		2002 completed, in progress for 2003.
<i>BAM restructuring</i>	Completion of first phase of BAM restructuring study (04/01)	Validation of study by BAM management.* Thorough reorganization, including, possibly, subsidiaries for the main activities. Signing of the performance contract between the State and BAM.	Thorough reorganization of BAM implemented; creation of a subsidiary for express mail activities. Program contract signed for 2002-2004.
<i>Financial services</i>	TOR for major study on development of postal financial services (05/00)	Launching of the study by the Treasury (2001)*	Launching of the study in November 2003.

Dates in the center column are World Bank estimates at the time of Board approval. Where date is in bold italics, it figures in the Government's Letter of Sector Policy.

* indicates this is also a second tranche condition of the ADB loan.

Additional Annex 10. Liberalization Schedule Originally Approved by ANRT's Board in March 2000

2000: 3RP licenses ("reseaux radioelectriques a ressources partagees") (Note: These licenses comprise fleet, dispatch, trunking, and other data and voice applications of radio communication for closed user groups sharing certain parts of the spectrum.)

2001: A national telecommunications license allowing sale of all services excluding voice and with obligation to supply on demand a bandwidth of at least 2 megabits per second. The sale of public telephony services will be allowed under this license as of December 2002.

2001: An interurban telecommunications license allowing sale of all services excluding voice and with obligation to supply on demand a bandwidth of at least 2 megabits per second. The sale of public telephony services will be allowed under this license as of December 2002.

2001: At least one local telecommunications license per region allowing sale of all services excluding voice and with obligation to supply on demand a bandwidth of at least 2 megabits per second. The sale of public telephony services will be allowed under these licenses as of December 2002.

2002: An international telecommunications license allowing sale of all services.

2002: Several universal service licenses according to needs to be established.

Taken from minutes of ANRT's board meeting of 1 March 2000 (unofficial translation).

Additional Annex 11. Proposed Policy Matrix for IISDL of 27 November 2000

**PROJET de Matrice des Objectifs et Mesures de Politique
Projet de Développement des Infrastructures de l'Information
(Révisée à l'issue de la réunion de synthèse de la mission d'évaluation
du projet PDSII Mai 2000)**

REVISEE LE 27 NOVEMBRE 2000

TELECOMMUNICATIONS

Objectif	Première tranche	Deuxième tranche
Privatiser l'IAM	<p>2.13. Distribution du questionnaire et du mémorandum d'information à des investisseurs stratégiques qualifiés ayant exprimé un intérêt pour une prise de participation au capital de l'entreprise.</p> <p><i>Statut : Documents distribués le 24 mars, suite à l'appel à manifestation d'intérêt lancé le 22 mars 2000</i></p> <p>2.13. Lancement de l'appel d'offres pour la privatisation d'IAM avec un dossier incluant notamment :</p> <ul style="list-style-type: none">(a)les termes et conditions (cahier des charges) de la privatisation d'IAM.(b) le pacte d'actionnaires, assurant le transfert du contrôle de la gestion d'IAM à l'investisseur stratégique. (<i>juin 2000</i>)(c)les engagements de services du partenaire stratégique(d) le nouveau Cahier des Charges d'IAM reflétant la stratégie sectorielle du Gouvernement.	<p>2.13. Signature par le Premier Ministre du décret de cession de X pour cent du capital de IAM au partenaire stratégique. (<i>d'ici décembre 2000</i>)</p>

Objectif	Première tranche	Deuxième tranche
Renforcer la concurrence dans les services de télécommunications et les infrastructures	<p>2.13. Adoption par le Gouvernement (Conseil d'Administration de l'ANRT) du programme d'octroi de licences pour différents segments du marché des télécommunications durant les années 2000 et 2001. <i>(1er Mars 2000)</i></p> <p><u>Statut</u> : <i>Adopté.</i></p> <p>2.13. Octroi d'une licence GMPCS, y compris services de transport de voix, dans le cadre d'un appel à la concurrence. <i>(juin 2000).</i></p> <p><u>Statut</u> : <i>Opérateur sélectionné, décret en cours de préparation par l'ANRT</i></p> <p>2.13. Publication par IAM d'une offre révisée d'interconnexion approuvée par ANRT. <i>(d'ici fin juin 2000)</i>.</p> <p><u>Statut</u> : <i>En cours d'élaboration</i></p>	<p>2.13. Notification par le Premier Ministre aux adjudicataires des licences (suite à un appel à la concurrence) de la possibilité d'ouverture de service pour :</p> <ul style="list-style-type: none"> . au moins une licence de télécommunications locales (boucle locale), et de . soit une licence pour les services interurbains (backbone) [soit une licence pour un deuxième opérateur national]. <p>Les termes de ces licences incluent entre autres : (a) l'accès au réseau et la fourniture de capacité louée aux opérateurs de télécommunications, prestataires de service et réseaux indépendants ; (b) des réseaux et services de données aux utilisateurs finals ; (c) la fourniture à qui le demande d'un débit d'au moins 2 Mbits par seconde, et (d) tout autre type de service, y compris le service de voix [au 1er janvier 2002/en 2002]. <i>(Septembre 2001)</i>.</p>
Étendre l'accès aux services à des prix abordables pour tous les segments de la population.	<p>2.13. Définition dans le cahier des charges de IAM des obligations éventuelles incombant à cet opérateur en matière de service universel.</p> <p><u>Statut</u> : <i>En cours d'élaboration.</i></p> <p>2.13. Définition des éléments clés du régime pour la prestation du service universel.</p> <p><u>Statut</u> : <i>En cours d'élaboration</i></p>	<p>2.3. [Adoption par le Conseil des Ministres / Promulgation d'un décret sur ..] un régime pour la prestation du service universel et l'aménagement du territoire, y compris [calendrier], définition de la portée initiale des services, procédures pour déterminer les tarifs, responsabilité en matière de prestation, sources de financement, et mécanisme de marché pour déterminer et allouer toute subvention requise. <i>(2ème semestre 2000).</i></p>

TECHNOLOGIES DE L' INFORMATION

Objectif	Première tranche	Deuxième tranche
Développer un cadre juridique et réglementaire adéquat pour les TI.	1.12. Approbation par la Commission interministérielle sur les messages de données d'un projet de Loi sur les Messages de Données, y compris principes sur la reconnaissance de la signature électronique. <i>(juin 2000)</i>	2.13. [Présentation au Parlement] d'un projet de Loi sur les Messages de Données. <i>(novembre 2000).</i>
Développer des réseaux inter-administrations	1.13. [Lancement de l'appel d'offre] de la [première/deuxième] phase de l'étude sur l'initiative « Administration en ligne (AEL) » pour le compte de la commission inter-ministérielle sur l'AeL. <i>(mars / juillet 2000).</i>	2.13. Validation par le Gouvernement des conclusions et recommandations de l'étude sur l'initiative AEL. <i>(décembre 2000.).</i> 2.10. Lancement d'un projet pilote pour l'initiative AEL. <i>(1er semestre 2001)</i>

SECTEUR POSTAL

Objectif	Première tranche	Deuxième tranche
Elaboration d'une stratégie nationale pour la modernisation du secteur	1.141. [Lancement] par SEPTI d'une étude qui servira de base à la stratégie nationale pour le développement du secteur postal. <i>(Démarrage de l'étude prévue pour début juillet)</i> <u>Statut</u> : Appel d'offres déjà lancé le 6 avril 2000....	2.11. Soumission au Conseil des Ministres des textes de loi et/ou des dispositifs juridiques visant à : (a) définir les obligations de service public, leur portée et leurs coûts, les modalités des mécanismes d'exécution et de financement ; (b) définir un plan et un calendrier pour la libéralisation du marché y compris une participation accrue des prestataires privés ; (c) définir un statut juridique pour BAM qui lui permette d'opérer efficacement dans une situation de concurrence; et (d) établir le cadre de réglementation requis. <i>(septembre 2001).</i>
Moderniser l'opérateur postal BAM	1.152. Lancement par BAM d'une [étude] visant à mettre en œuvre une stratégie d'entreprise axée sur le renforcement de l'efficacité de l'entreprise. (<i>Adjudication du marché début juillet 2000 ; démarrage de l'étude Septembre 2000</i>). <u>Statut</u> : Appel d'offres déjà lancé.	2.12. Démarrage de la mise en œuvre par BAM d'une stratégie d'entreprise visant à renforcer l'efficacité de l'entreprise, notamment sa restructuration, et adoption des programmes [d'investissement], de recrutement et de formation nécessaires au succès de cette mise en œuvre. <i>(septembre 2001).</i>
Etendre la provision des services financiers par le biais du réseau postal	2.13. Finalisation des termes de référence pour une étude qui servira de base à la stratégie de développement des produits d'épargne et des services financiers de la CEN et des CCP par le comité de pilotage dirigé par la Direction du Trésor avec la participation du SEPTI et de BAM.. <u>Statut</u> .Termes de Référence discutés et finalisés	2.13. Lancement par le comité de pilotage de l'étude qui servira de base pour la proposition : (a) d'une ou plusieurs option(s) pour développer les produits d'épargne et les services financiers de la CEN et des CCP, sans toutefois introduire de distorsions indues à une concurrence loyale au sein du système bancaire et financier ; et (b) d'un plan visant à développer l'expertise interne requise et l'éventail de qualifications nécessaires pour matérialiser les nouveaux produits et d'un plan axé sur l'essaimage éventuel de services de ce type à une institution distincte. (<i>1er semestre 2001</i>)

Additional Annex 12. Borrower's Report

Morocco

Information Infrastructure Sector Development Project

Information and Completion Report

Borrower's Comments

Introduction

The main objectives of the Program in support of Information Infrastructure Sector Development (IISD) in Morocco were the liberalization of the telecommunications sector, partial privatization of Maroc Telecom, strengthening of the legal and regulatory framework, development of the use of information technologies, and preparation of a strategy to modernize the postal sector.

The program met most of its objectives and contributed to the development of the telecommunications, information technologies, and postal sector.

I. Telecommunications Sector

I.1 The liberalization process

After the award of a second GSM license in 1999, and within the context of the ongoing sector liberalization process, the years 2000-2003 were particularly uneven: on the one hand, some licenses were successfully granted to the winning bidders, while on the other hand, the second license for fixed telephony could not be awarded.

At the same time, the opening to competition advanced during this period through the introduction of new successful licensees. This refers to two 3RP (shared radioelectric networks) operators, Inquam Telecom SA and Moratel SA; and three new public telecommunications network operators using GMPCS satellite technology, namely European Datatom Maghreb, Soremar and Thuraya Maghreb.

I.1.1 3RP licenses

The shared radioelectric networks (3RP) are based on the sharing of frequencies by many users without the proliferation of infrastructures. They enable an effective and efficient use of frequencies, better planning of the frequency spectrum by resolving congestion problems in certain frequency bands, and the provision of telecommunications services to user groups at competitive rates. 3RP license holders will be able to provide infrastructures and services to meet the communications needs within a same fleet of users and/or facilities attributed to a single subscriber.

Three companies established under Moroccan law, Miden SA, Inquam Telecom SA and Moratel SA, responded to the bid and were awarded three 3RP licenses. However, Miden SA withdrew, following the purchase of its assets by Inquam Telecom.

Inquam Telecom SA is a subsidiary of the Inquam Group, whose controlling shareholders are, mainly, Qualcomm and Omni P61. Inquam Telecom SA counts among its partners Nextel, Qualcomm and

Lucent Technologies.

Inquam Telecom chose the iDEN platform, which is a mobile communications system that provides bi-directional radiocommunications services, SMS paging, and packet-switched data transmission, through a single integrated system. This operator plans to implement the CDMA technology within its 3RP network.

Inquam Telecom's offer will be essentially directed at transport carriers, firms with a large number of traveling employees, administrative entities, state-owned enterprises and certain local utilities. Inquam Telecom plans to invest a total amount of MAD 800 million in Morocco over a five-year period and to create a total of 156 jobs.

Moratel SA plans to deploy a mobile communications network based on the Tetra standard (Terrestrial Trunked Radio). This is an open system defined by ETSI (the European Telecom Standards Institute), which can be used for fixed or mobile digital radiotelephony, message transmission, data transfer, and other applications for radio users.

With its services offer, Moratel wants to target public services (public security and public enterprises) as well as private firms (notably transportation, construction and civil engineering, paging, security, and water and electricity distribution). Moratel plans to invest MAD 500 million and to create a total of 97 direct jobs, and 150 indirect jobs during the first year.

1.1.2 GMPCS licenses

The competitive bidding launched in 2002 focused on awarding GMPCS licenses for telephony and data transmission services for new GMPCS systems or for systems that had not responded to invitations to bid since 2000.

Four new public GMPCS satellite telecommunications networks will be set up and operated in Morocco. Two of them will be based on the Inmarsat satellite system (European Datacom Maghreb SA and Soremor SARL), the third on the Iridium satellite system (European Datacom Maghreb SA) and finally the last one on the Thuraya satellite system (Thuraya Maghreb SA).

Inmarsat (created in 1979 as an intergovernmental organization) became a private company in 1999 and operates a global network of satellites that are used by a worldwide group of service providers who offer terrestrial, maritime and aeronautical mobile communications solutions. Inmarsat's satellite system is comprised of 9 geo-stationary satellites positioned over the equator at an altitude of 36,000 km, of which four are fully operational, ensuring a worldwide provision of Inmarsat services.

The Iridium system provides satellite personal communication services (SPCS), also known as GMPCS, enabling digital terrestrial, maritime and aeronautical communication worldwide. The Iridium system uses 66 low orbit satellites (LEO) at an altitude of 780 km, distributed on six orbital planes with an incline of 86.4 degrees and has one spare satellite on each plane. The system also covers both terrestrial poles, providing a worldwide coverage.

The Thuraya system is comprised of two geo-stationary satellites, one currently in orbital position at 44 degrees east, and the other one being kept on the ground as a back-up. The satellite covers more than 99 countries in Europe, North and Central Africa, the Middle East, Central Asia and the Indian sub-continent.

I.2 The second license for fixed telecommunications

The year 2001 was mainly devoted to preparing the opening of the fixed telecommunications market. To this end, a study on the fixed telecommunications market in Morocco was carried out to evaluate the basic options for fixed telecommunications licenses scheduled to be issued, namely a national license, a corporate backbone license, one or several licenses for local loops, and two international licenses.

The study sought to verify that future licenses would be viable, based on sensitivity analyses, and to evaluate the impact of certain parameters such as duration of the license, number of licenses, sequencing, interconnection tariffs, and other regulatory instruments.

At the same time, a call for expressions of interest was launched on March 1, 2001, in order to obtain the opinions of potentially interested firms on the elements and options to be used in the preparation of the *cahier des charges* for the licenses.

In June 2001, a one-day information seminar was organized, and the results of the study were presented. Only the backbone license and the national license were deemed viable. The licenses for local loops were therefore excluded from the process.

Only one license to establish and operate a fixed telecommunications public network at the local, long distance and international levels was retained.

The bid for awarding this license was launched in June 2002. Fifteen (15) companies requested the bidding document, but no offer was submitted by the initial deadline of October 8, 2002; the deadline was extended to November 5, 2002, as requested by the potential candidates.

Several reasons explain the fact that the fixed telecommunications license was not awarded, notably, among others:

- the depressed international climate, in particular as regards telecommunications. This also is shown by the fact that only one firm among the 15 that requested the *cahier des charges* was a telecommunications operator, the others being primarily international consulting firms specialized in the field and in search of investment opportunities;
- the level, considered high, of the geographic coverage obligations, at the opening of the service (7 towns spread throughout the national territory);
- the operator contributions, which were considered very restrictive (universal service, training and research); and
- the uncertainty as to the availability of alternative infrastructures.

Despite the lack of interest in the second fixed license, the national telecommunications market continued its progress, exhibiting a significant growth rate in mobile telephony. Tariffs were lowered for several products and services, to the strong benefit of individual users and businesses. New tariff offers were made and authorized by the regulator in order to meet the specific needs of different types of customers.

I.3 Partial privatization of Maroc Telecom

The first phase of the opening of Maroc Telecom to private capital was achieved successfully. This action was necessary for Maroc Telecom to be able to position itself effectively on the rapidly changing

domestic and global telecommunications markets. To this end, an international competitive bidding process was launched, which led to the selection of Vivendi Universal Group as the strategic partner of Maroc Telecom. Vivendi Universal currently holds 35% of Maroc Telecom's capital.

In the context of the implementation of the IISD, this operation was to be followed by the transfer of a second tranche of 16% of Maroc Telecom's capital. This step should not only produce significant public revenues, but should also enable Maroc Telecom to integrate itself into the international capital markets.

This operation could not be executed according to the initially planned agenda, due to an international economic situation characterized by a decline of investments in this sector during the last three years.

However, the Government is still strongly committed to the liberalization of the telecommunications sector and the privatization of Maroc Telecom, and therefore is considering the completion of these operations during 2004.

In any case, the first phase of privatization of Maroc Telecom and the award of new licenses have had positive effects on the sector, notably:

- total digitalization of telecommunications networks,
- very strong growth in the number of mobile subscribers,
- a wide range of value-added services,
- significant choice among satellite telecommunications operators (GMPCS and VSAT) and among Internet service providers,
- a larger number of service marketing firms,
- local presence of foreign telecommunications equipment manufacturers,
- significant investments in the sector, and
- increase of GDP.

I.4 Legal and regulatory framework

After five years in force, and in order to take into account the evolution of telecommunications operators and user needs, it was deemed opportune to amend the law 24-96 relative to posts and telecommunications.

These amendments have enabled implementation of a new universal service regime with a reduction in operator contributions from 4% to 2%. They have also permitted the use of alternative infrastructure for rapid expansion of territorial coverage with regard to fixed networks, and the implementation of graduated sanctions to strengthen the regulatory role of ANRT (Law 55-01).

II. The Information Technologies Sector

II.1 Projects implemented

To enable a harmonious development of information technologies, several projects were implemented or are in the process of being implemented. Among them are:

- a national portal and town portals,
- availability online of several administrative procedures,
- pilot gateway of pilot interconnection,

- ICT observatory,
- electronic market places and provision of certification services,
- roll-out of administrative websites and national content,
- computerization of schools,
- increase in the capacity of the Marwan academic network and linking it with the GEANT network,
- revitalization of the Casablanca technology park,
- Bouznika industrial park,
- Pilot project related to the Integrated Management of the Government's Human Resources (GIPE).

II.2 Legal framework

One of the main points of the IISD Project was to assist the Government in implementing an appropriate legal framework for developing the use of information technologies.

In this context, two draft laws are in the process of being adopted; these cover, on the one hand, data transmission (electronic signature and certification), and on the other the protection of personal information.

The first draft aims to secure electronic commerce and online administration transactions, and is built upon the following points:

- legal recognition of electronic signature and data transmission,
- rules for their transmission,
- equivalence between handwritten signature and electronic signature,
- equivalence between handwritten evidence and the evidence in the form of a data message, and
- certification and provision of certification services,

The second draft concerns treatment and exchange of personal data and targets the protection of individuals against data abuse that would be detrimental to private life.

III. Postal Sector

In order to achieve the goals of the IISD Project in the postal sector, and to ensure a sustainable and integrated development of post at the sector level as well as at the public operator's level, efforts have been made to upgrade the postal sector as a whole while enhancing Barid-Al-Maghrib's services and operational performance.

III.1 Sector strategy

In order to outline a global vision of postal sector development, a study was undertaken to determine the orientations of the development strategy, in particular as regards the specification of the public operator's legal status and the overhaul of the postal monopoly.

However, the absence of cost accounting data was an impediment to an in-depth economic analysis necessary to determine the scope of universal service and reserved services (as well as their costs) in a well-grounded manner.

Therefore, the economic and financial details of these services are currently being determined through a study on the cost of postal universal service.

It is worth noting that after the completion of the study on postal strategy, a draft postal law was prepared by a commission comprised of Barid Al-Maghrib and the Department of Posts, Telecommunications and Information Technologies. The draft law, which is articulated around universal service, will be completed and revised in light of the conclusions of the study on universal service cost. The commission may thereafter be strengthened by the addition of representatives from other Departments.

The above-mentioned draft law proposes to address the following points:

- The scope of universal service and reserved services as well as financing options for universal service,
- The legal regime for competitive services and the conditions for operating these services,
- The transformation of Barid Al-Maghrib into a limited liability company and its designation as the provider of universal service,
- The implementation of postal regulation.

III.2 Modernization of the company

In the context of the modernization of Barid Al-Maghrib, a study was conducted to determine how to upgrade this institution by modernizing its management and adapting its structure to the requirements of the postal market.

The conclusions of this study were implemented with a new organizational structure for Barid Al-Maghrib, in which commercial and strategic functions are emphasized. Barid Al-Maghrib's board adopted this restructuring plan during its meetings of September 2001 and June 2003.

Barid Al-Maghrib now has a new organizational structure, completely different from the previous public administration mode, and has been transformed into a commercial entity focusing on:

- Greater competitiveness,
- Enhanced level of service quality,
- Accomplishment of public service missions under optimum cost and quality conditions.

Barid Al-Maghrib continues to diversify its range of products and to enhance the quality of the postal and financial services it offers, particularly through the introduction of information technologies and the extension of the postal network.

In this context, new projects have been launched, such as the offer of national courier service "Amana", a geographic information system whose aim is to better distribute the postal presence throughout the territory and to enable a better targeting of clients, and the introduction of a new information system for the *Caisse d'Epargne Nationale* (postal saving accounts).

These efforts allowed Barid Al-Maghrib to maintain a satisfactory financial situation. As a result, nearly all the objectives set in the program contract for 2002 were achieved.

III.3 Development of postal financial services

A study on the development strategy for postal financial services was launched. It is designed to outline

the different paths and means to promote the products of the *Caisse d'Epargne Nationale* and the *Comptes Courants Postaux* (checking accounts) in a manner that does not harm fair competition within the banking system, while simultaneously developing internal expertise and the potential for establishing a separate institution for financial services.

