

Japan International Cooperation Agency (JICA)
Ministry of Environment of the Government of Morocco

The Study on the National Guidelines for
Solid Waste Management for
the Kingdom of Morocco

Final Report

Book 6

Supporting Report:
Current Conditions of Solid Waste Management
in Morocco

August 1997

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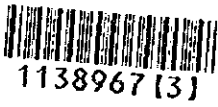
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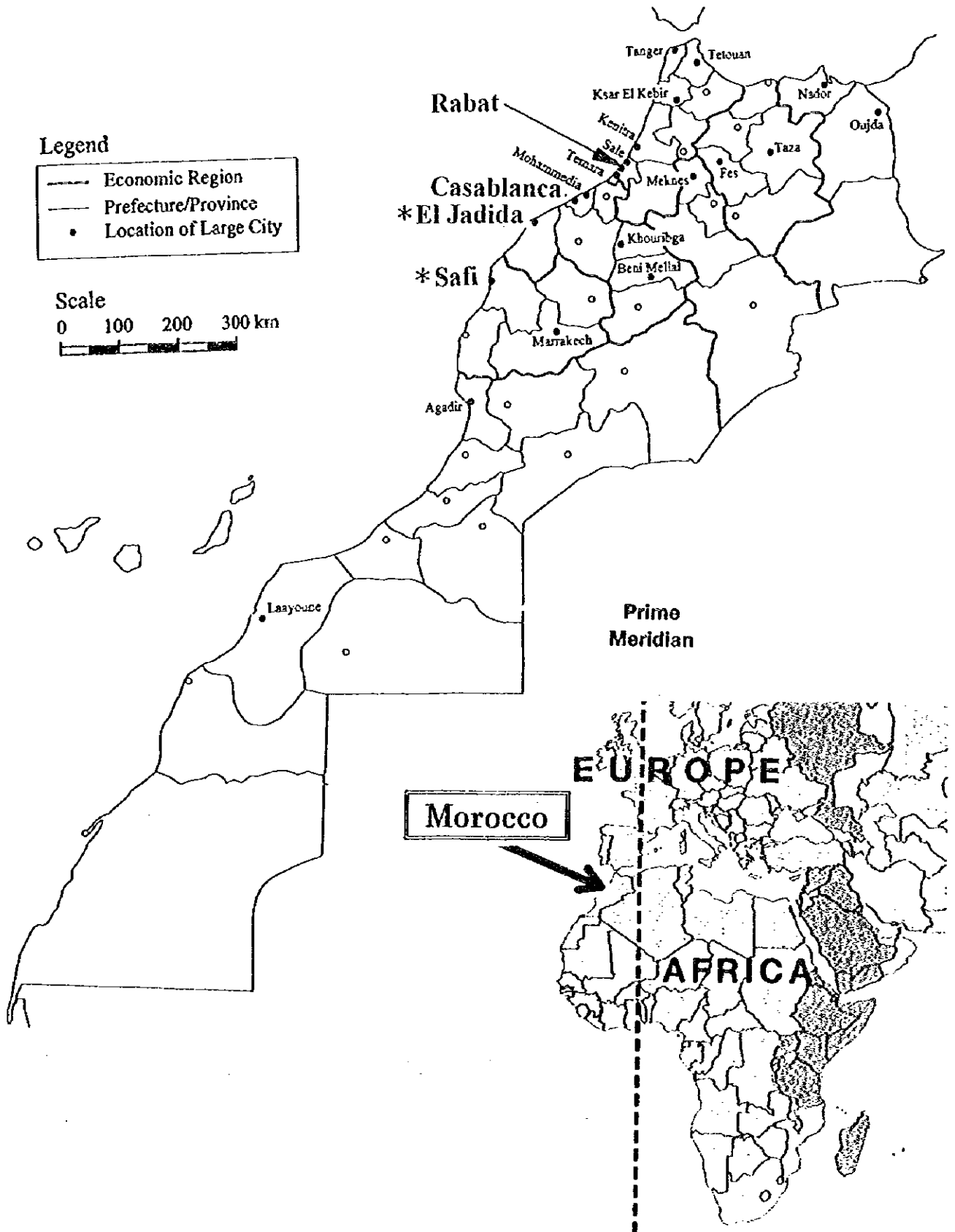
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Location Map of Morocco



* Safi and El Jadida were selected for the second year study of this project.



Exchange Rate (as of July 1997)

1 Dirham = 0.115 US dollars = 13 yen

Abbreviation List

BMH	Municipal Health Service
CNE	National Council for Environment (Conseil National de l'Environnement)
CRE	Regional Council for Environment (Conseil Régional de l'Environnement)
DAHIR	Law, Decree, or other legal document signed by the King
DH	Dirham
EU	European Union, E.E.C
FEC	Fond D'Equipement Communal Communal Fund for Equipment
GDLC	General Department of the Local Government, MoI
HCS	Haul Container System
MoA	Ministry of Agriculture
MoC&I	Ministry of Commerce and Industry
MoE	Ministry of Environment
MoEM	Ministry of Energy and Mines
MoH	Ministry of Health
MoI	Ministry of Interior
MoPW	Ministry of Public Works
NP	National Promotion
ONEP	National Office for Drinking Water
SWM	Solid Waste Management
USE	Under Secretariat for Environment, MoI
Veh.	Vehicle

Final Report

Contents

Current Book and Part are marked with “*”.

- Book 1** **Guidelines for National Level Policies and Actions for Solid Waste Management**
- Part 1 National Strategy
Part 2 Laws, Institutions, and Finance
Part 3 Industrial and Hazardous Waste
Part 4 Infectious Waste
- Book 2** **Guidelines for Improvement of Solid Waste Management for Urban Communes and Communities**
- Part 1 Management and Institutions
Part 2 Technical Guidelines
- Book 3** **National Action Programs for Solid Waste Management**
- Book 4** **Solid Waste Management Plans for Safi and El Jadida**
- Part 1 Solid Waste Management Plan for Safi
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Chapter 1 Introduction

THE STUDY ON THE NATIONAL GUIDELINES FOR SOLID WASTE MANAGEMENT FOR THE KINGDOM OF MOROCCO

INTRODUCTION

1. Objectives of the Study

The objective of the Study is to strengthen the capacity of solid waste management at both national and local levels. This study has been executed by Japan International Cooperation Agency (JICA) based on the request from the Government of Morocco. JICA commissioned the study to a joint venture comprising EX Corporation and Yachiyo Engineering Co., Ltd. The joint venture has organized a study team comprising of 11 specialists. The Study has been conducted jointly by Japanese consultants and their Moroccan counterparts.

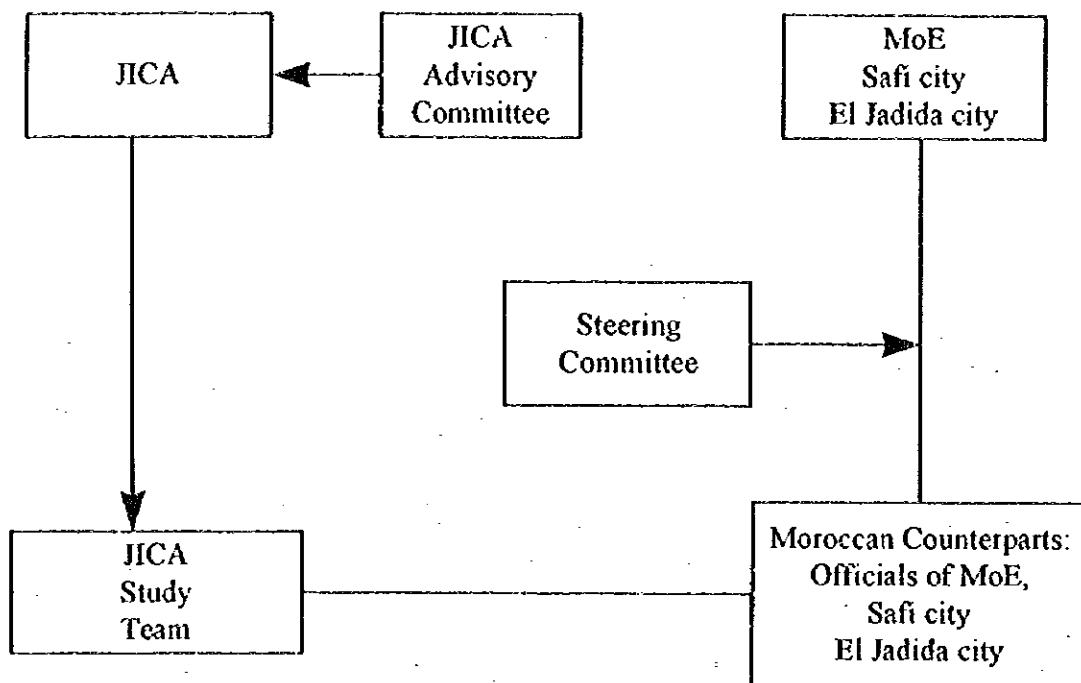
The study period was about 18 months from January 1996 to July 1997. The Study is divided into two phases, the first phase being from the beginning up to September 1996, and the second phase being from October 1996 till the end. The objective of the first phase study is to formulate the guidelines and action plan for solid waste management at both national and local levels. The objective of the second phase is to apply the guidelines formulated and check their applicability. Two cities, i.e. Safi and El Jadida were selected for the second phase. The Study team in collaboration with the counterparts in Safi city have formulated a plan for improvement of solid waste management. In addition, we have implemented a public education campaign (demonstration project) aiming at strengthening citizens' understanding and cooperation concerning city cleansing. We have also formulated a plan for improvement of disposal of solid waste for El Jadida. It is expected that the plans will serve as a model for other local authorities in Morocco.

2. Study Organization

The study organization is shown in the figure below. This study has been conducted jointly by the Study Team led by Mr. Ohno and the Moroccan counterparts, i.e. officials of Ministry of Environment, Safi city and El Jadida city. A key counterpart agency on the Moroccan side is the Ministry of Environment. For the smooth execution of the study, the Moroccan side formed a steering committee comprising of representatives of the Ministry of Environment, Ministry of Interior, Ministry of Health, Ministry of Public Works, and Ministry of Commerce and Industry. Mrs. Layachi, Director, Department of Observation, Study and Coordination, Ministry of Environment served as chairman of the steering committee. On the Japanese side, an advisory committee was formed for the study. Dr. Masaru Tanaka, Director, Department of Waste Management Engineering, the National Institute of Health, served as chairman of the Advisory Committee.

JAPANESE SIDE

MOROCCAN SIDE



MoE: Ministry of Environment

3. Reports

This study has produced the following reports:

1. Inception report
2. Progress report (1)
3. Interim report
4. Progress report (2)
5. Draft final report
6. Final report

The final report consists of the following Books:

- Book 1** Guidelines for National Level Policies and Actions for Solid Waste Management
 - Part 1 National Strategy
 - Part 2 Laws, Institutions, and Finance
 - Part 3 Industrial and Hazardous Waste
 - Part 4 Infectious Waste

- Book 2** Guidelines for Improvement of Solid Waste Management for Urban Communes and Communities
 - Part 1 Management and Institutions
 - Part 2 Technical Guidelines

- Book 3** National Action Programs for Solid Waste Management

- Book 4** Solid Waste Management Plans for Safi and El Jadida
 - Part 1 Solid Waste Management Plan for Safi
 - Part 2 Waste Disposal Plan for El Jadida

- Book 5** Summary

- Book 6** Supporting Report :
Current Conditions of Solid Waste Management in Morocco

- Book 7** Data Book:
Appendices to Solid Waste Management Plan for Safi

- Book 8** Japanese Summary

4 General Information on this Book

All the Book except for Book 8 has been prepared in English and French.

Book 6 was prepared based on the study carried out by the Study Team through the first two visits to Morocco made during the first half of 1996.

This Book contains the Team's findings on the existing situation of the Moroccan solid waste management. It also contains major issues, identified by the Study Team, concerning the management of municipal, industrial and hospital waste in Morocco. The estimation of the current and future waste generation quantity and target collection coverage are also included in the report.



CHAPTER 1 INTRODUCTION

1.1 Study Background

Urbanization

With the urbanization and industrial trend started in 1960's in Morocco, the population in urban areas has been increasing rapidly. The urban population in 1960 was about 3.4 million, 29 % of the whole population of Morocco. In 1991, the urban population was 12.3 million, 49 % of the nation's population. In 2000, it is projected that the urban population would share 55 %.

With the urbanization in Morocco, a key urban issue is the development of urban infrastructures such as sewerage system, roads, and solid waste management system.

Economic Growth and Environment Protection

Overall economic performance has been good in recent years except for years affected by drought: per capita income has grown at an average rate of 4 % since the mid 1980's. The growth of the manufacturing and service sectors is important in view of necessity for creating work opportunities for increasing urban population. The development of these sectors requires the use of the natural resources including land and water, of which quality has been gradually deteriorating. The environmental protection is a key condition for sustainable economic development.

Moroccan Environmental Policy

It is the Moroccan policy to subscribe to all the decisions made by the international community and join the collective will to preserve the environment according to the action plan Agenda 21 adopted in the 1992 Rio Conference.

In conformity with the Agenda 21, the Moroccan government has been rigorously developing the environment protection policy and systems with the foreign assistance as described in Section 1.3.

Municipal Solid Waste Management

Like any other country, local governments (communes and urban communities) in Morocco are responsible for municipal solid waste management. The most serious and yet common problem facing the Moroccan local authorities is the inadequacy of funds and technical personnel necessary for providing public services including solid waste management.

In spite of this inadequacy, however, waste collection service coverage is rather high and streets are maintained clean in many cities. According to the answers to the questionnaire addressed to some communes, it is roughly estimated that collection service coverage in terms of population in urban communes ranges from 90%.

However, disposal service of waste is of poor level. Open dumping is practiced. Except for Casablanca, there are no engineering inputs in the disposal (landfill) sites. The Moroccan municipal disposal sites receive all kinds of solid waste. Unauthorized open dumping places are seen in most communes.

At the national level, there are no laws and administrative organizations specific to solid waste management. There are a lot of scope to increase efficiency of SWM services through improvements in financial, institutional and technical aspects. In view of the limited human resources available at local level, the central government has a large role to play to induce desirable improvements in SWM. To induce such improvements, it is necessary for the central government to formulate and disseminate, technical standards, guidelines and action programs for SWM.

Industrial Hospital and Hazardous Waste Management

Management of industrial, hazardous, or hospital waste is of very poor level. These types of waste have higher risks of affecting human health than general municipal waste does. Responsible persons in the industry and hospitals are generally aware of necessity for introducing appropriate waste management systems. However, due to the lack of guidance and regulations, they do not know how the waste should be managed. Preparation of laws and guidance on industrial, hazardous, and hospital waste is a matter of great urgency.

Current Study

It is with this background that the Government of Kingdom of Morocco requested the Government of Japan to conduct a "Study on the National Guidelines for Solid Waste Management for Morocco." In response to the request of the Moroccan Government, the Government of Japan has decided to conduct the Study. Accordingly, the Japan International Cooperation Agency (JICA), the official agency responsible for the implementation of technical cooperation programs, has been undertaking the Study in close cooperation with the Moroccan counterparts represented by the Ministry of Environment.

1.2 Study Objectives

The ultimate objective of the Study is to improve solid waste management at both national and municipal levels in Morocco. Specific objectives of the Study include:

1st Phase

- a. to formulate guidelines for the improvement of solid waste management to be used at both national and local level.
- b. to formulate action programs at both national and local level.

To understand the current situation of solid waste management at local level, the Study Team has carried out a questionnaire survey. The questionnaires were answered by 22 urban communes, 5 urban communities and 11 industry enterprises and 3 hospitals.

Objectives of the Progress Report (1)

This Progress Report (1) presents the Study Team's understanding of the current situation of solid waste management at both central government and local levels. The report also presents improvement needs and issues identified by the Study Team. The

information and issues presented in the report will form a basis on which the Guidelines will be prepared during the next visit (July - September, 1996).

2nd Phase

- c. to formulate a master plan for improvement of solid waste management for the city of Safi.
- d. to conduct a pilot study on public education for proper waste management

Another important objective of the Study is to transfer the knowledge and experience related to solid waste management to the Moroccan counterparts through the joint study.

1.3 Relevant Studies

1.3.1 Environment Management Project (EMP) Financed by the World Bank Loan

The study most relevant to the current JICA Study is the Environmental Management Project (EMP) financed by a loan of the World Bank.

The EMP consists of the following 4 packages:

Package 1: Institutional and legal framework development for the environmental protection

Package 2: Economic and financial incentives development for the environmental protection

Package 3: National environmental information system development

Package 4: Environmental education

According to the original plan shown in the 1993 World Bank report, the commencement of the project was mid 1994. In reality, the packages 1 and 2 commenced in March 1996.

The package 1 includes tasks for development of laws and regulations for the pollution control and preparation of laws concerning hazardous and chemical waste of both liquid and solid forms. The latter is treated as an urgent task. Because the current JICA study includes development of guidelines for industrial waste including hazardous one, discussion and coordination between the 2 studies will be necessary.

1.3.2 National Strategy for Protection of the Environment and Sustainable Development

The above document was completed in 1995 by the Ministry of Environment with the support of UNDP and UNESCO (Project No. Mor. 90/001). This document sets the environment improvement targets including waste collection and disposal services coverage and recycling, and attempts the justification of costs needed for the

environmental protection by comparing estimated benefits arising from the environmental protection.

The National Council of Environment has accepted the targets presented in the strategy book. The current JICA study respects the strategy and targets presented in the book.

1.3.3 GTZ Environment Management

The project has 2 phases: 1st 1990 - 1995, and 2nd 1995 - 1998. The overall objective of the project is the strengthening of the MoE's planning, technical and administrative capacity. Specific objectives of the project in respective phases are as follows:

Phase 1 (1990 - 1995):

- To set up the national laboratory
- To set standards and norms
- Information and sensitization
- Training
- To prepare a law concerning air pollution

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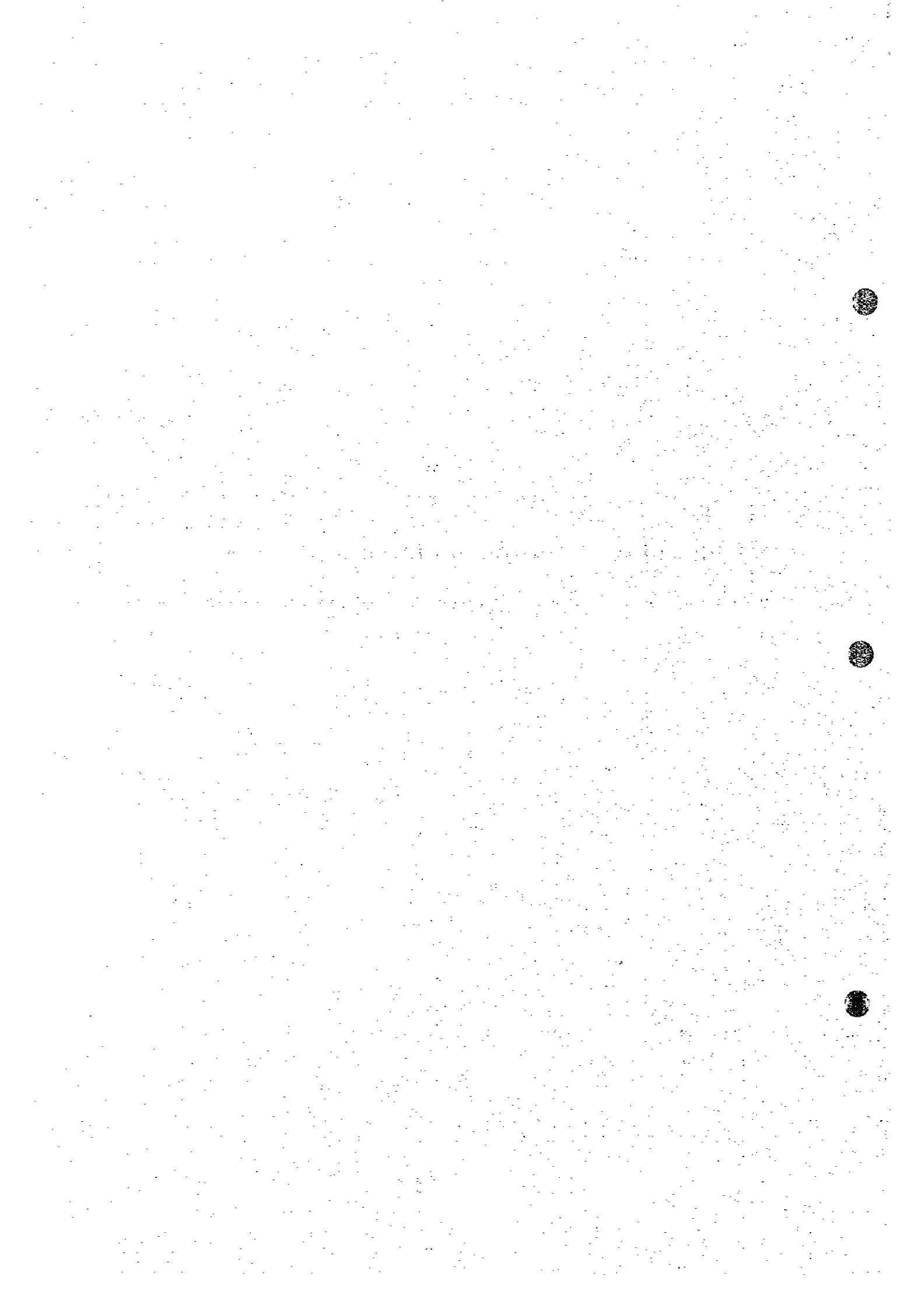
- Information letter internal to MoE
- Information center of MoE
- Strategy of sensitization (report)

Phase 2 (1995 - 1998):

- To strengthen technical and administrative competence of MoE
- To set norms and standards
- To prepare laws of priority area including:
 - 1) Juridical document of EIA (February - September 1996)
 - 2) Laws concerning protection of industrial environment (classified installations - waste disposal sites may be included) (September 1996 - September 1997)
 - 3) a law text about protection of the coastal area, or a frame law on waste management (scheduled period is October 1997 - June 1998)
- to make the national laboratory operational
- to improve the coordination between internal/ external structures

As the scope of this project may include preparation of laws concerning waste management, the information and views will be exchanged between the JICA Study Team and GTZ experts.

Chapter 2 Outline of Morocco



CHAPTER 2 OUTLINE OF MOROCCO

2.1 Natural Conditions

2.1.1 Topographical Conditions

Situated on the North West tip of Africa, Morocco presents the variegated topographical features. The kingdom's territory covers 710,850 km² including the Western Sahara. There are four distinct mountain ranges or massifs, considered geologically unstable and leaving Morocco subject to earthquakes, such as the one in Agadir in 1960.

In the north, the Rif forms an arc of largely impenetrable limestone and sandstone mountain territory, rising sharply back from the Mediterranean to height of about 2200 metres.

The Middle Atlas range (Moyen Atlas), which rises to a maximum altitude of 3290 metres, is running north-east to south-west from the Rif. It is separated from the Rif by the only real access route linking Atlantic Morocco with the rest of North Africa, the Taza Gap.

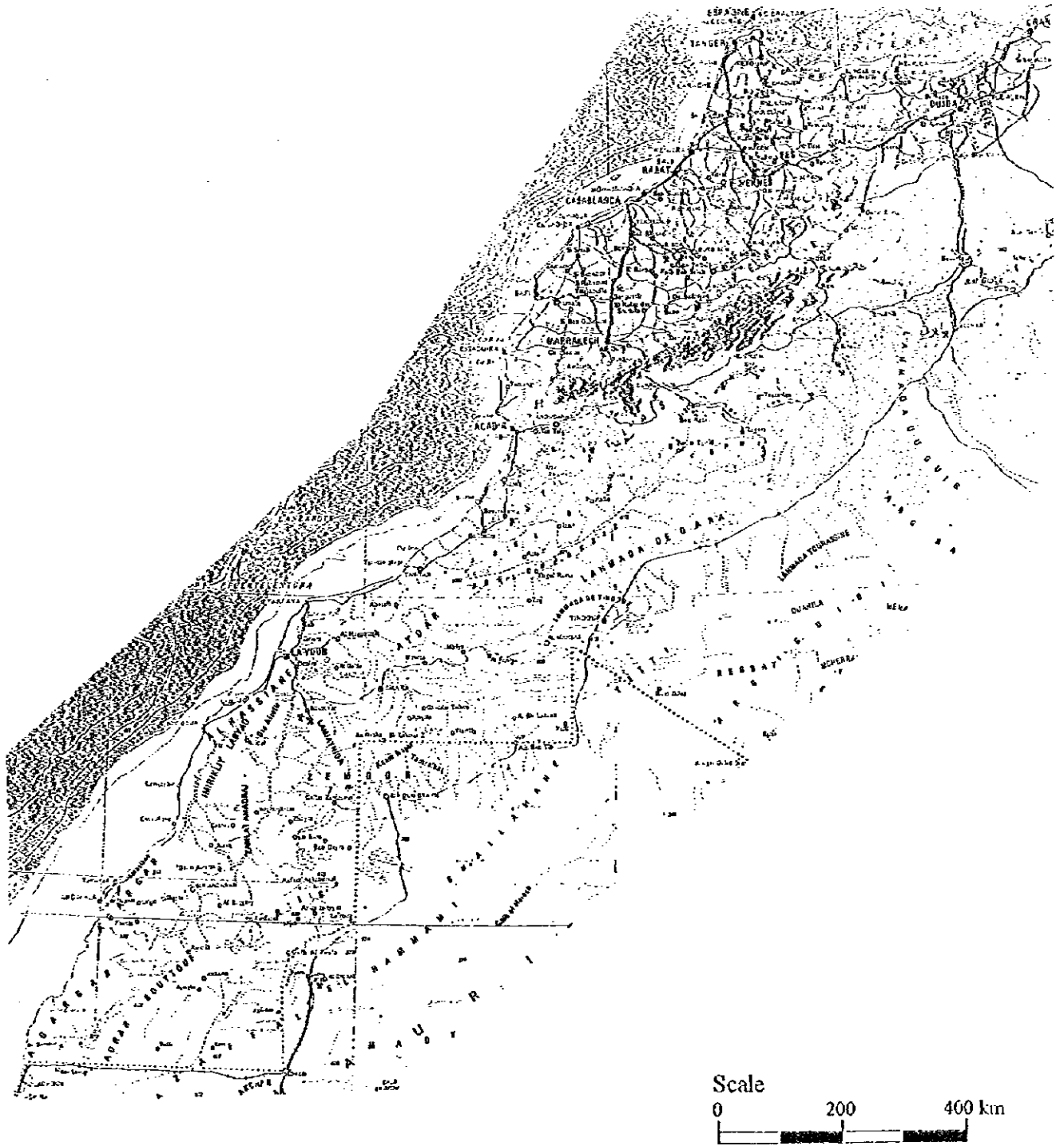
The low hills east of Agadir rise to form the highest of the mountain ranges, the High Atlas, which more or less runs parallel to the south of the Middle Atlas. Its tallest peak, Jebel Toubkal, is 4165 metres high and, like much of the surrounding heights, is covered in mantle of snow through the winter and into spring. Farther south again, the lower slopes of the Anti-Atlas drop down into the arid wastes of the Sahara.

The rivers can flow quite strongly at certain times of the year depending on seasonal rainfall and melting snows. The Drâa, Ziz and the Dadès rivers drain off into the Sahara, although occasionally the Drâa completes its course all the way to the Atlantic coast north of Tan Tan. Among other rivers that drain into the Atlantic are the Sebou, which rises south of Fès and empties into the ocean at Mehdiya, about 40 km north of Rabat, and the Oum er-Rbia, which has its source in the Middle Atlas, north-east of Khenifra, and reaches the Atlantic at Azemmour, just north of El-Jadida.

The topographical conditions of Morocco are outlined in the following figure.



Fig 2.1-1 Topographical Map





2.1.2 Geological Conditions

Most of the Continent of Africa had been geologically stable in the beginning of Paleozoic era, however, after that orogeny had still remained in Morocco and its environs. Morocco's national land is divided in two parts, north and south, by mountain range of Atlas. The mountain range of Atlas, which had upheaved by the Alpine orogeny in the Tertiary period, is a geosyncline in Mesozoic era. Geological structure of Morocco is divided into 3 zones; Rif in the north, Atlas in the center and Anti Atlas in the south.

Atlas zone consists of High Atlas, Middle Atlas and Meseta. High Atlas and Middle Atlas are mainly the layers of Jurassic period caused by onlap. Meseta is the coastal plains and plateau on the west side of Atlas, and consists of Paleozoic strata.

Anti Atlas, which consists of Precambrian strata and metamorphic rocks of the Paleozoic, had upheaved by the Hercynian orogeny from the end of Paleozoic to the beginning of Mesozoic era. Rif by the Alpine orogeny, of which basis is Paleozoic strata, is a geosyncline from the Mesozoic to the Tertiary period.

Fig 2.1-2 shows geological conditions in Morocco.

2.1.3 Climate

Morocco is subject to the influence of highly diverse climatic conditions. The North is characterized by Mediterranean influences, the South is part of the arid Sahara, the West is subject to Atlantic influences and in the East the high Atlas has its own microclimates. Average annual precipitation levels vary from 750 mm per year in the Mediterranean region of Loukkos to under 100 mm in the Saharan regions of Ouarzazate and Tafilalet.

Weather in the coastal regions is generally mild but it can become a little cool and wet, particularly in the north. Rainfall is greatest in the Rif and northern Middle Atlas, where only the summer months are almost dry.

While the interior of the country can become extremely hot in summer, the Atlantic coast is kept comparatively agreeable by sea breezes. The southern Atlantic coast, however, is more arid.

In the desert, temperatures can swing wildly from day to night. This is due to the dryness of the atmosphere, which has almost no humidity.

The climatological conditions at 4 stations (Rabat, Marrakech, Fès and Drâa Valley) are shown in Table 2.1-3.



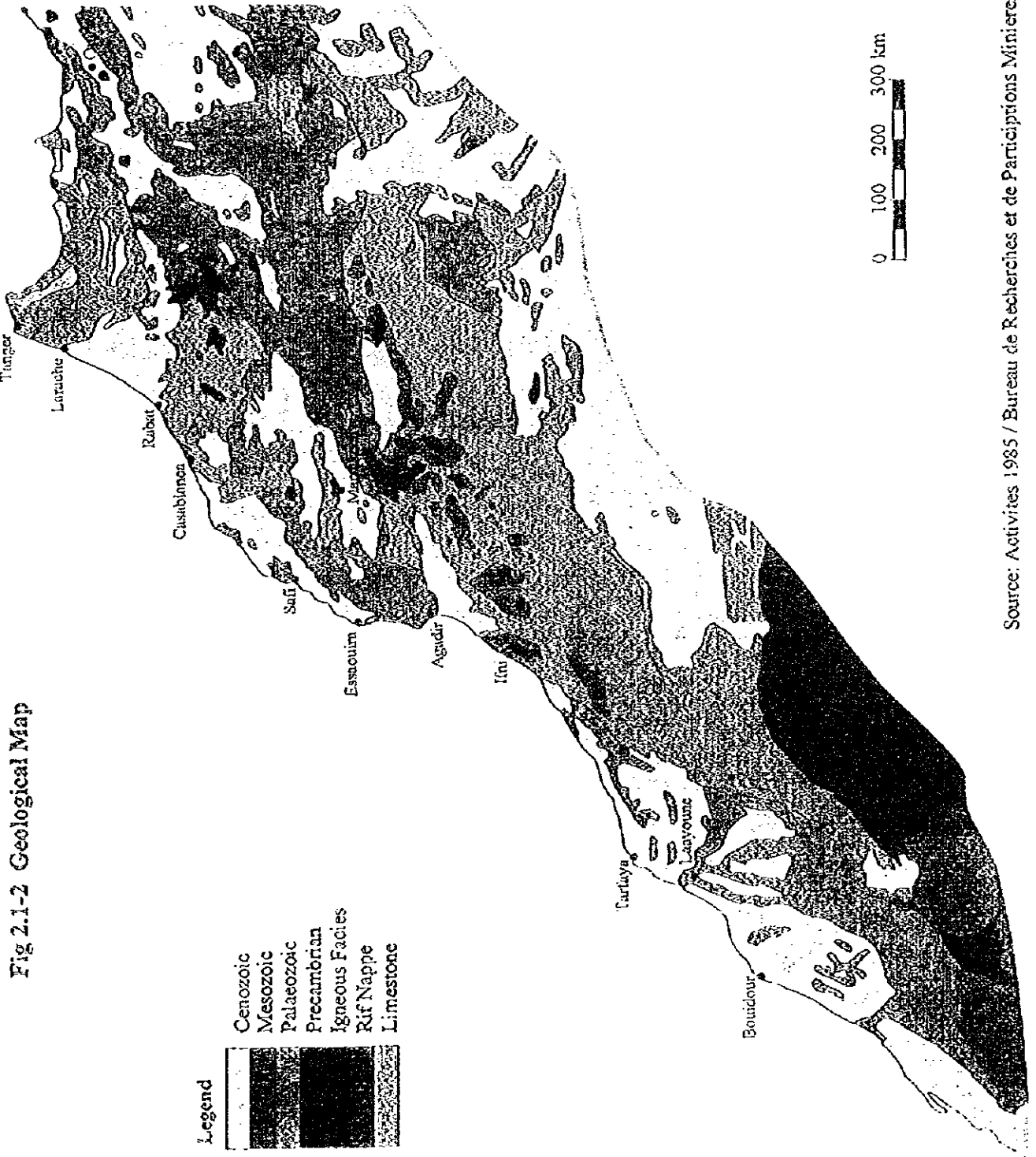
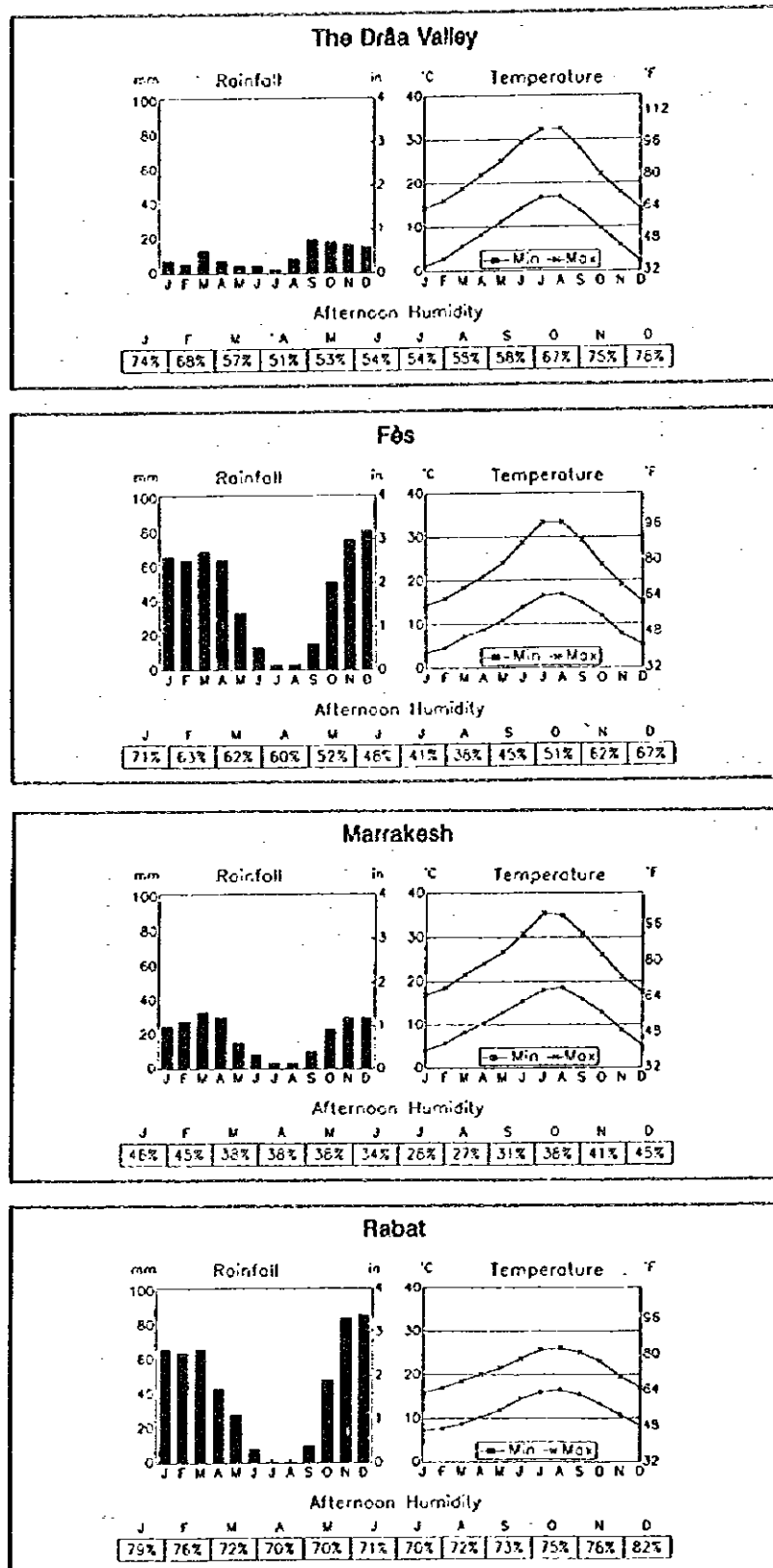


Fig 2.1-2 Geological Map

Source: Activités 1985 / Bureau de Recherches et de Participations Minières



Fig 2.1-3 Climatological Conditions



Source: Morocco / Lonely Planet, 1995

2.1.4 Natural Resources

1) Water Resource

This item is well described in the Report titled "Kingdom of Morocco Water Sector Review (World Bank, 1995)".

Total precipitation levels for Morocco average 150 billion m³ per year, 30 billion of which replenishes surface and groundwater flow, the remainder being lost to evaporation. The challenges associated with the uneven geographical distribution of Morocco's water resources are compounded by the uneven and erratic nature of rainfall. Most precipitation falls between October and April. Morocco is highly susceptible to long periods (one to six years) of drought. This creates highly variable surface flows and threatens water supplied to households and farmers alike. Per capita renewable water resources are estimated at 800 m³. Morocco is hence, according to international categorizations, defined as "water stressed".

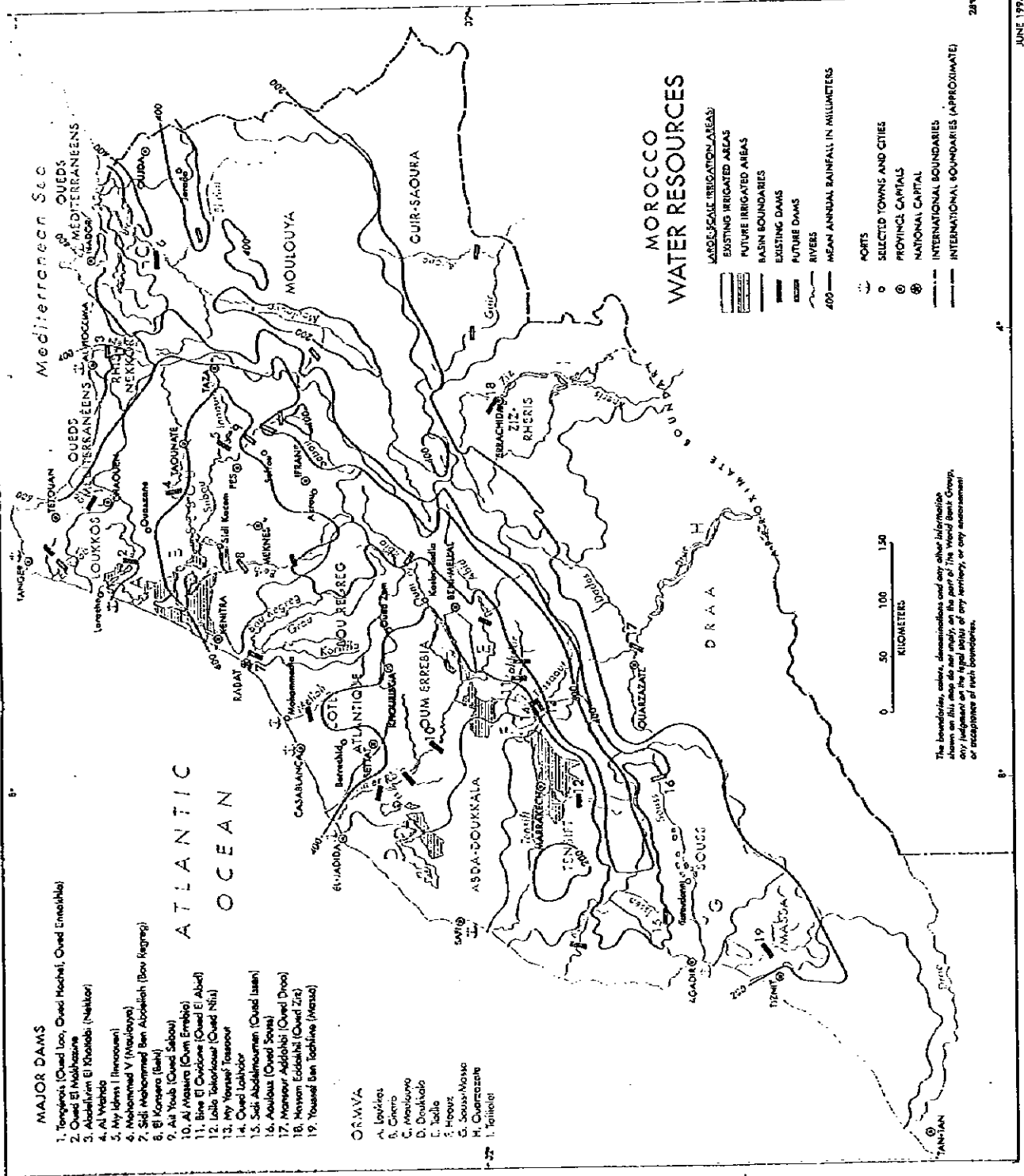
Fig 2.1-4 shows Morocco's water resources.

a. Surface Water

Surface flow provided by rain is concentrated in the months from December to February. Variations in surface flow between dry and rainy seasons can be extreme, with Ouerrha river flows in the Sebou basin ranging from 300 m³/second to 10,000 m³/second.

The Middle Atlas contains large reserve stocks of groundwater and the High Atlas provides reserve stocks of surface water throughout the year due to the slow melting of snow. The Atlas chain also feeds Morocco's main rivers. Thus, the Sebou and Oum er Rbia rivers receive a base flow even in periods of prolonged drought.

Fig 2.1-4 Water Resources





b. Groundwater

About 70 percent of renewable groundwater resources are located in the Atlas and Atlantic hydrogeological regions of Morocco. These regions constitute only 20 percent of the national territory. Total renewable groundwater resources in Morocco are estimated at around seven billion m³ per year, but because over 2.5 billion m³ per year is lost to the sea or other receptors, the total renewable groundwater resources available for use is estimated to be between 3 and 4.5 billion m³ per year.

Groundwater reserves have been drawn down in virtually all the principal aquifers. The situation is particularly acute in the Tensift and Souss basins where, due to uncontrolled groundwater mining, there has been depletion of nonrenewable groundwater resources. Excessive drawdown of groundwater reserves has resulted in salt water intrusion, threatening lucrative vegetable production in the coastal region between Kénitra and Safi. Similarly, intensified competition for water between the coastal tourist industry, Agadir's industrial and household water needs, modern orchards, and subsistence farmers has caused drawdowns of up to several meters, thus greatly increasing private pumping costs for farmers in the Souss, where groundwater stocks are declining by one meter per year. The prolonged drought in the 1980s has accentuated the decline in groundwater stocks, accelerating the decline in the Fès-Meknès aquifer to two meters per year.

2) Mineral Resources

Phosphates dominate the mining sector. The probable reserves of phosphates are estimated at 57.8 billion tons, as reported in various studies. OCP (Office Chérifien des Phosphates) monopolizes the mining, processing and marketing. About half of production is processed locally into phosphoric acid and fertilizer; the remainder is exported as phosphate rock. The whole of exports is accounted for one-third of world trade.

Phosphate mining is carried out at Khouribga, Youssoufia, Benguerir, and the western Saharan mine of Boucraa. In 1994, the output which recovered after a period of recession caused by low world demand and depressed prices is estimated at 18.4 million tons. Most of the output is from Khouribga, as shown in Table 2.1-1. Phosphate processing is mainly carried out at the Safi and Jorf Lasfer chemical factories.

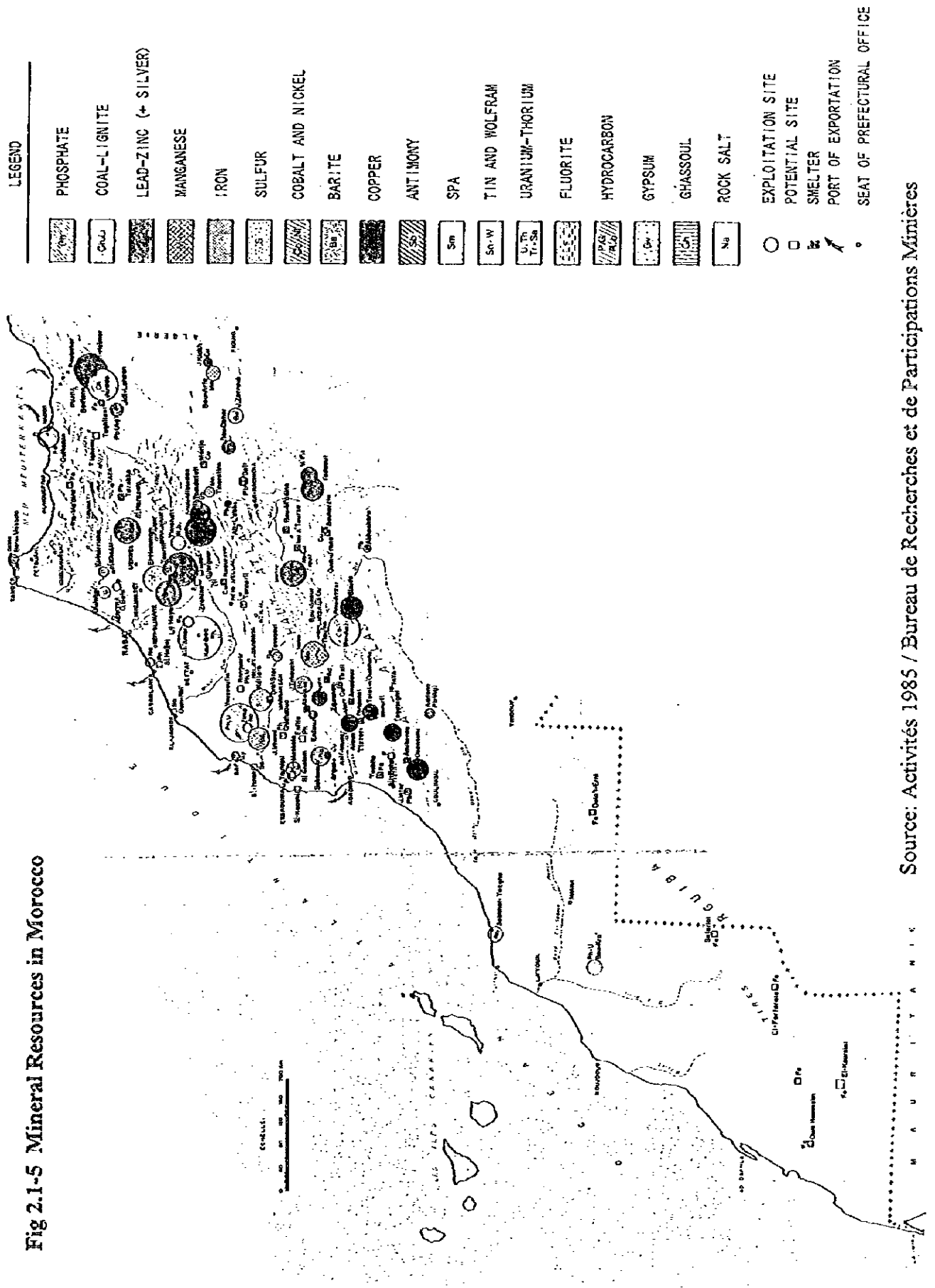
Table 2.1-1 Output of Phosphates

	Output ('000 tons)				
	1990	1991	1992	1993	1994
Khouribga	13,518	10,668	10,718	9,212	11,773
Youssoufia	2,992	2,772	3,147	3,121	2,845
Benguerir	2,394	2,094	2,315	2,218	2,404
Boucraa	1,487	846	740	1,282	1,394
Total	20,391	16,380	16,920	15,833	18,416

Source: Annuaire Statistique du Maroc 1995

Other minerals are distributed throughout the country, such as iron ore, lead, barytes and so on. However, importance of those minings is not high compared to phosphates. Mining of iron ore is carried out at Nador and Meknès, of which output has severely receded for some years. Lead mining is carried out at Middle Atlas and High Atlas, and barytes mining is at the western side of High Atlas. Fig 2.1-5 shows distribution of mines in Morocco.

Fig 2.1-5 Mineral Resources in Morocco



Source: Activités 1985 / Bureau de Recherches et de Participations Minières



2.2. Socio-Economic Conditions

2.2.1 National Income

During the past decade Morocco has implemented an effective adjustment program, involving stringent fiscal and monetary policies, tax reform and tight wage and salary policies. Fairly stable real exchange rates have been achieved and inflation is now under control, after large increases in the urban consumer price index in the early 1990's. Overall performance of the Moroccan economy has been good in recent years: per capita income has grown at an average rate of about 4 percent since the mid-1980's. Estimated GNP in 1994 at current prices was 286,030 million DH, which corresponds to about 10757 DH (or about 1265 US dollars) per capita. The composition of GNP, and recent trends, is shown in Table 2.2-1 below.

Table 2.2-1 GNP 1990-1994

Unit: Million DH at Constant (1980) Prices (Market Price)

	1990	1991	1992	1993	1994 (estimate)	1994 (estimate) %
Agriculture, forest, fishing	19,760	24,048	15,514	14,784	24,095	19.7
Mining	3,518	3,115	3,271	3,115	3,402	2.8
Energy	3,754	3,928	4,140	4,081	4,408	3.6
Manufacturing	18,973	19,573	20,099	19,902	20,735	17.0
Buildings, Public Works	5,169	4,983	4,604	4,790	4,709	3.8
Commerce	22,008	23,531	24,983	23,596	24,120	19.7
Transport/ Communications	5,697	5,930	6,551	6,837	7,197	5.9
Financial Other Services	12,618	12,653	13,337	13,597	13,597	11.1
Public Administration	16,572	17,819	19,246	20,079	20,079	16.4
TOTAL	103,069	115,579	110,885	109,688	122,343	100.0

Source: Annuaire Statistique du Maroc, 1995

Overall performance of the economy depends heavily upon the agricultural sector, despite efforts to diversify into industrial activity. Agriculture provides a livelihood to 40 percent of the economically active population, and contributes around 20 percent of GDP. Changes in output due to variations in weather have a multiplier effect on overall economic activity. Thus the 4 percent decline in GNP in 1992 and a further 1 percent decline in 1993 were due largely to drought in those years; in 1994 however abundant rainfall contributed to an increase in GNP growth of over 11 percent, while agriculture in that year grew by 63 percent. Water resources therefore remain key to Morocco's economic performance, particularly as agriculture contributes to about 30 percent of the country's export earnings.

The manufacturing sector, which accounted for about 17 percent of GNP in 1994, is quite diversified, and primarily consists of food processing, textiles, automobile assembly, and chemical and fertilizer industries. Phosphates and their derivatives dominate the mining and refining industry (the country has the world's most accessible

phosphate reserves). Mining's share of the value of total exports has however declined, from 32 percent in 1981 to only 8 percent in 1991, reflecting both a widening and a diversification of the export base and declining world market prices for phosphates.

2.2.2 Balance of Payments

Morocco's external trade performance in recent years has been good. Trade liberalization has been a feature of recent policy, although much remains to be done, particularly in removing protection from the agriculture sector, and foreign exchange reserves have been accumulating. However, heavy reliance upon the volatile agricultural sector for export earnings is a source of uncertainty; moreover the Uruguay Round of the GATT requires that Morocco will face increased competition for its main exports (textiles, clothing, and agriculture) to the European Union - which currently accounts for almost 90 percent of the country's textile and clothing exports and almost 80 percent of its three main agricultural product exports. The government has taken strong measures in the energy sector, and in particular has attempted to reduce dependence on oil imports by import duties which have effectively made consumer prices more than double world prices.

2.2.3 Social Issues

Labor market reform is required; for example high minimum wages in the formal non-agriculture sector contribute to rising unemployment, which is now about 16 percent in urban areas. Poverty remains a serious issue; with about 13 percent of the population falling below the poverty line. Although social indicators have improved a great deal in the last two decades, they are still unsatisfactory; there are also wide regional differences and between urban and rural areas. As estimated by the World Bank, the country has a very low literacy rate at around 49 percent (38 percent for women). At 5 percent of GDP, government expenditures on education are relatively high, but still only 70 percent of the school age population are enrolled in primary education. Other indicators indicate that much has to be done to alleviate poverty include infant mortality figures of 66 per 1,000 live births, 9 percent of children under 5 years suffering from malnutrition, and only 73 percent of the population with access to a safe water supply.

2.2.4 Public Expenditure

In recent years, the central government's fiscal deficit has worsened. Budgetary expenditures are relatively high, and account for about 30 percent of GDP. The functional composition of the budget has changed significantly in the past few years, but currently the country devotes relatively large shares of its resources to defense and education. Reduction in the deficit is however recognized as a priority, in that to do so will help to raise overall domestic saving required to finance the investment needed for sustained growth. In general, efforts to reduce the budgetary deficit have focused on nonwage recurrent and capital expenditures, leaving the share of wages and salaries particularly high. Transferring the burden of certain national programs to local governments has also taken place (as noted in Section 4 below), but this has clearly not addressed the substantive issue of deficit reduction.

In addition to actual expenditure reduction, the government recognizes that there are many opportunities for improving the efficiency of public expenditures, particularly in the social sectors. Recovery of the costs of publicly-provided services by increased use of fees or user charges is also possible. In addition, as in other countries, major opportunities for reducing government deficits exist by means of transferring activities to the private sector.

The foregoing general principles apply at the local level as well. Local government expenditures, although rising, are only a little over 10 percent of central government expenditures, and thus account for about 3 percent of GDP. As in the case of the central government, growing wage expenditures is a dominant feature of the increase in local authority expenditure, on reason for this being the recent rapid growth in the number of local government entities. The process of administrative decentralization and associated fiscal reforms, described in Section 4 of this report, is likely to increase the financial significance of local governments in the future.

2.2.5 Privatization

The private sector accounts for over 80 percent of value added in Morocco but private investment has not grown much during the last decade. Several constraints to private sector development remain. These include rigidities in factor markets as well as legal and regulatory obstacles, such as the procedures involved in establishing a new business, or indeed of closing one down. Distortions still remain in the system of incentives, such as local price controls, and the public sector continues to play a major role in many areas of economic activity. As recommended by the World Bank, current efforts to privatize publicly-owned enterprises such as banks, insurance companies, steelworks, oil refineries, and other industrial and manufacturing firms should be accelerated. The next step should be to create the legislative, judicial, and economic conditions conducive to privatization of infrastructure services. Steps in this direction have been taken with respect to energy and water distribution; more needs to be done in these sectors, and the approach also extended to other areas such as telecommunications, ports and transportation.

2.2.6 Financial Sector

Financial sector reform is required to mobilize investment resources and allocate them efficiently. The growth of the private sector in general is heavily dependent upon financial sector reform. As indicated by the World Bank, elements of such reform would include liberalization of interest rate, promotion of a capital market, the promotion of institutional savers, such as pension funds, elimination of the government's preferential access to credit, and improved bank supervision. The foregoing will improve the information available to the private sector regarding such things as the risking of investments, and the true cost of capital, and will actually reduce risks by provision of instruments to hedge risks as well as mobilizing savings from larger numbers of savers. The need for such reforms is clearly recognized by government, although actual implementation will take some time.

2.2.7 Water Resources

The macroeconomics importance of water resources in Morocco have been noted above. The country's water resources have been increasingly under strain in recent years. Most critical is the impending water shortage, with projected water demand and supply patterns indicating an actual deficit by the year 2040, and considerably earlier deficits in some areas. Unless remedial action is taken, water shortage will certainly present a formidable obstacle to future economic growth. Effective water availability is adversely affected by various aspects of environmental degradation including deforestation, soil erosion and pollution, including the careless disposal of solid waste; in consequence there is considerable competition between existing and potential water users and deterioration in the quality and quantity of the water supply.

Water scarcity will force Morocco to reconsider the rationale for traditional ways of expanding irrigated production for agriculture; it will also require attention to the long-term relationship between supply and demand of potable water in large cities and deprived rural communities; fewer than 15 percent of rural households have access to safe water compared with over 90 percent of urban households. It is recognized that centralized management of this key resource is required if water resources are to be allocated in accordance with overall national priorities, and if development is to be sustainable in the long term. Efficient allocation of water between competing sectors, including rigorous comparison of the costs and benefits of alternatives, and making greater use of demand management, including pricing, as a means of resource allocation are required; this also includes the more efficient management of industrial and municipal waste.

2.2.8 Summary

In summary, Morocco has successfully carried out a number of important adjustment reforms in recent years, and its overall economic performance has been good, although some serious social problems remain. Maintenance of this progress, and, in particular the alleviation of poverty will require continued efforts to reduce public deficits, with some re-targeting of expenditures aimed at health, education, and environment. The country is extremely vulnerable to external shocks such as the weather, and fluctuations in international prices for agricultural products and phosphates. This is compounded by its current dependence upon the European Community export market. Greater flexibility and diversification are thus required; in turn this requires acceleration of on-going efforts to encourage private sector activity by legislative, judicial and economic reforms this applies to both infrastructure services as well as commercial and industrial activities. Financial sector and labor market reforms as well as more effective investment in human capital are of critical importance. Paralleling all these reforms is the pressing need to ensure the rational use of water resources, upon which the macroeconomic health of the country depends. These issues are all well recognized by government, and progress, albeit gradual, is taking place on all fronts.

References

1. World Bank, Country Economic Memorandum: Towards Higher Growth and Employment, September 1995.

2. World Bank, Social Indicators of Development, 1994.
3. Annuaire Statistique du Maroc, Direction de la Statistique, Ministere du Change de la Population, 1995.

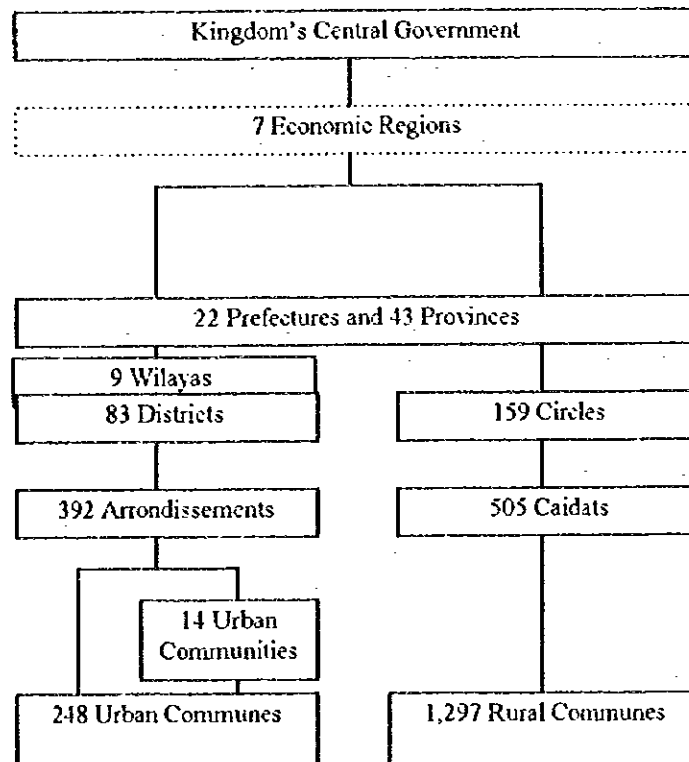
2.3 Population and Cities

2.3.1 Population

1) Outline of Local Autonomies

Population census in Morocco is based on the resident registration in the local autonomies. Therefore, the structure of local autonomies has to be outlined in advance of description of population. Classification of local autonomies is briefly shown in Fig 2.3-1.

Fig 2.3-1 Classification of Local Autonomies



Notes: Economic Regions are not autonomic bodies.

The kingdom's territory is divided into 7 Economic Regions because of the relationship among several prefectures/provinces based on those economic developments, geographical situation, and social situation. Economic Region is not an autonomic body, but an assembly representing several adjacent prefectures/provinces. Economic Regions are divided into 22 prefectures and 43 provinces. Prefecture and province are both local governments, to which governors are assigned by Ministry of Interior, and have same legal status.

22 prefectures are administratively divided into 83 Districts, further into 392 Arrondissements, while 43 provinces are divided into 159 Circles, further into 505 Caidats. However, these administrative bodies have no immediate connection with this section, because the population in Morocco shall be illustrated by Economic Regions, prefectures/provinces and communes level.

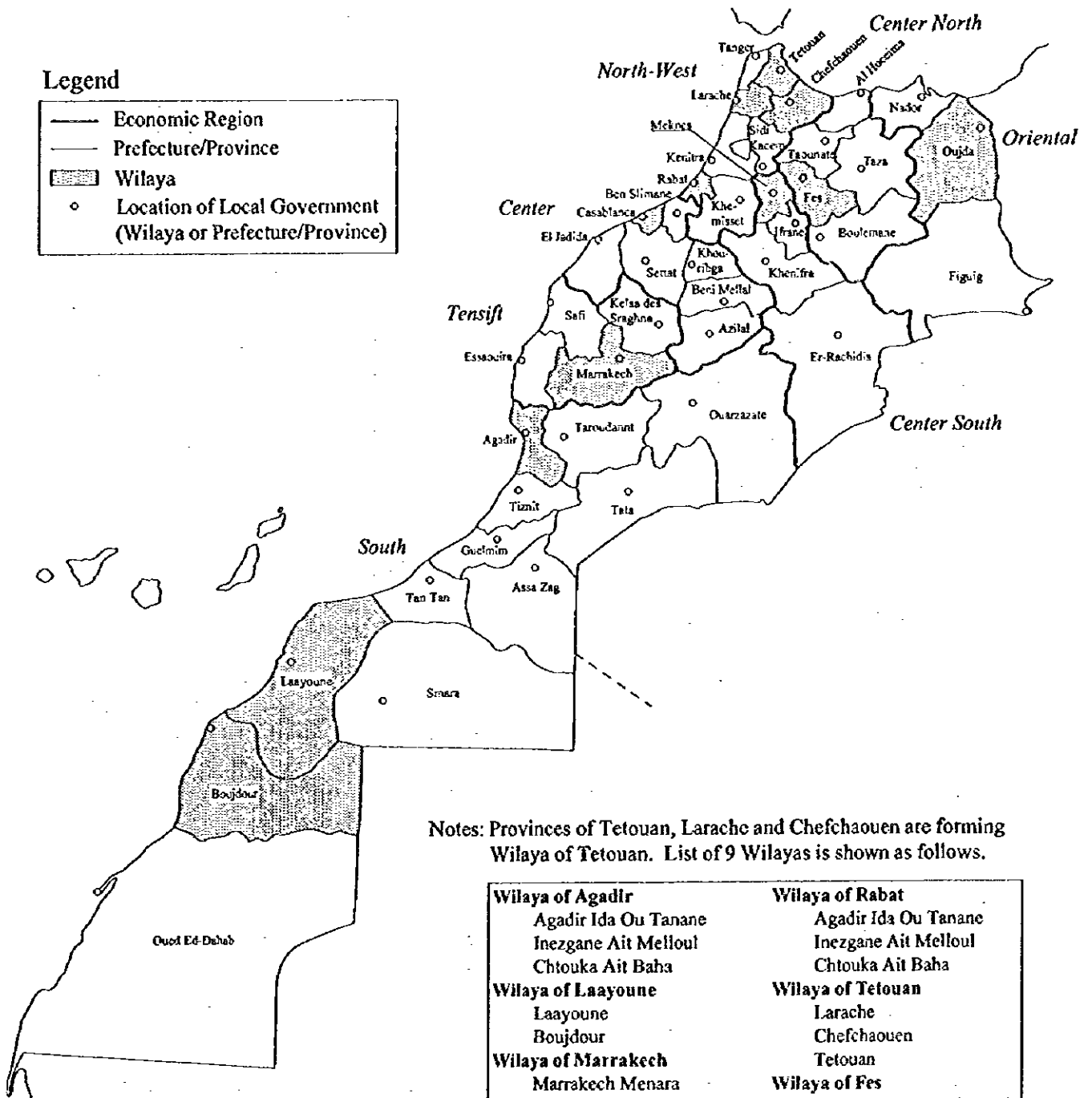
Commune is the smallest administrative unit. There are 248 urban communes and 1,297 rural communes in 1994. Urban communes differ from rural communes in respect of taxation and applicability of urban planning. In case that a part of rural commune is in a transitional form to urbanization, of which boundary is fixed administratively. Its area has also applicability of urban planning, is called «delimited center». Population of both urban commune and delimited center are counted as «urban population» in the census.

Wilaya consists of several prefectures/provinces. The head of Wilaya is assigned by Ministry of Interior, is called «Wali». Prefectures/provinces which compose a Wilaya were generally belonging to a prefecture or province as Circles at one time, and then those Circles were raised to prefectures/provinces status.

In case that prefectures/provinces composing a Wilaya, most of those statistic data are available only Wilaya's level. Accordingly, those kind of prefectures/provinces listed in attached table of Fig 2.3-2 shall be basically grouped together by Wilaya in this section related to the population and urban characteristics, except Boujdour, Laayoune, Chefchauen, Tetouan and Larache.

Meanwhile, urban community consists of several adjacent urban communes, which is established so as to handle the issues extending those communes. There are 14 urban communes in 1994. Urban community is operated by an assembly consisting of presidents and vice presidents of participating urban communes. Chairman of the assembly is elected among those members. Assembly's duties are to conduct such public services in common as road construction, electricity, water supply, public transport, liquid waste management, solid waste management, fire service and so on.

Fig 2.3-2 Administrative Map



Notes: Provinces of Tetouan, Larache and Chefchaouen are forming Wilaya of Tetouan. List of 9 Wilayas is shown as follows.

Wilaya of Agadir	Wilaya of Rabat
Agadir Ida Ou Tanane	Agadir Ida Ou Tanane
Inezgane Ait Melloul	Inezgane Ait Melloul
Chtouka Ait Baha	Chtouka Ait Baha
Wilaya of Laayoune	Wilaya of Tetouan
Laayoune	Larache
Boujdour	Chefchaouen
Wilaya of Marrakech	Tetouan
Marrakech Menara	Wilaya of Fes
Marrakech Medina	Fes El Jadid-Dar Dbogagh
Sidi Youssef Ben Ali	Fes Medina
Al Haouz	Zouagha-Moulay Yacoub
Chichaoua	Sefrou
Wilaya of Casablanca	Wilaya of Oujda
Casablanca-Anfa	Oujda Angad
Al Fida Derb Sultan	Berkane-Taourirt
Mechouar de Casablanca	Jerada
Ain Sebaa Hay Mohammadi	Wilaya of Meknes
Ain Chock Hay Hassani	Meknes El Menzeh
Sidi Bernoussi Zenata	Al Ismailia
Ben M'sik Sidi Othmane	El Hajeb
Mohammedia	

Source: Ministry of Interior

2) Population Growth

The real censuses of the population which covered whole of Morocco was taken in 1960, 1971, 1982 and 1994, of which total population were estimated at 11.63, 15.38, 20.42 and 26.07 millions respectively. The population of Morocco was growing rapidly, with estimated average annual growth rate at 2.58 percent over 1960-1971, 2.61 percent over 1971-1982 and 2.06 percent over 1982-1994 respectively. Population growth in Morocco is summarized in Table 2.3-1.

Table 2.3-1 Population Growth in Morocco

Year	1960	1971	1982	1994	Annual Growth Rate (%)		
					1960-71	1971-82	1982-94
Urban							
Pop.	3,389,613	5,401,971	8,730,399	13,415,659	4.33	4.46	3.64
Increase	-	2,012,358	3,328,428	4,685,260			
Share (%)	29.15	35.13	42.76	51.45			
Rural							
Pop.	8,236,857	9,977,288	11,689,156	12,658,058	1.76	1.45	0.67
Increase	-	1,740,431	1,711,868	968,902			
Share (%)	70.85	64.87	57.24	48.55			
Total							
Pop.	11,626,470	15,379,259	20,419,555	26,073,717	2.58	2.61	2.06
Increase	-	3,752,789	5,040,296	5,654,162			
Share (%)	100	100	100	100			

Source: Direction de la Statistique

Annual growth rate in the latest period is reduced compared to previous period. This trend may be an effect of the governmental policy. Family planning campaigns started in the mid-60's, and were reinforced in the early 1980's. Total fertility rate decreased to 4.04 (over 1990-1992) from 5.91 (over 1975-1979). Regarding to urban areas, its rate is 2.54, which is not half as in rural areas with estimated at 5.54 over 1990-1992. Improvement of education, change in the age of marriage, urbanization and increase of incomes are also important factors as for the reduction of the population growth rate.

In addition to those factors, it is deemed that increase of migrants to abroad largely influences the growth rate. Overseas Moroccan residents is estimated at 0.1 millions in 1966, at 0.3 millions in 1972, at 1.05 millions in 1985, and 1.7 millions in 1992 respectively.

Table 2.3-2 shows the detailed population growths by provinces/prefectures over 1971-1982-1994. South and North-West regions have higher growth rate in both 2 periods (1971-82 and 1982-94). The rapid growth of population in South region is a result of the migrant policy for the arid Sahara, while North-West region's growth is due to its fertile land and economic development. However, as for the numbers, population of Center region has largely increased during those 2 decades; it has increased by more than 2.8 millions to 6.9 millions in 1994, compared to 1971.

Table 2.3-2 Population Changes (1971-1982-1994) (1)

Province/Prefecture	Population 1971			Population 1982			Population 1994			Annual Growth Rate (%)				
	Total	Urban Population	Share (%)	Total	Urban Population	Share (%)	Total	Urban Population	Share (%)	1971-1982		1982-1994		
										Total	Urban	Total	Urban	
South	1,714,547	209,186	12.20	2,424,808	609,838	25.15	3,234,024	1,314,023	40.63	3.20	10.22	2.43	6.61	
Agadir *1	386,823	101,374	26.21	579,741	245,860	42.41	898,856	550,200	61.21	3.75	8.39	3.72	6.94	
Guelmin *2	77,205	18,100	23.44	128,676	42,886	33.33	168,972	99,526	58.90	4.75	8.16	2.30	7.27	
Boujdour	-	-	-	8,481	3,597	42.41	21,691	15,167	69.92	-	-	-	8.14	12.74
Es-Semara	-	-	-	20,480	17,753	86.68	39,726	28,750	72.37	-	-	-	5.68	4.10
Laayoune	2,835	1,104	38.94	113,411	96,784	85.34	153,978	149,640	97.18	39.84	50.18	2.58	3.70	
Ouarzazate	412,840	26,042	6.31	533,892	48,914	9.16	694,884	141,539	20.37	2.37	5.90	2.22	9.26	
Oued-Ed-Dahab	-	-	-	21,496	17,822	82.91	36,751	35,122	95.57	-	-	-	4.57	5.82
Tan-Tan	21,326	10,722	50.28	47,040	41,451	88.12	58,079	53,667	92.40	7.46	13.08	1.77	2.18	
Taroudannt	448,310	25,809	5.76	558,501	50,979	9.13	693,968	134,400	19.37	2.02	6.38	1.83	8.41	
Tata	88,022	0	0.00	99,950	3,142	3.14	119,298	36,011	30.19	1.16	-	1.49	22.54	
Tiznit	277,186	26,035	9.39	313,140	40,650	12.98	347,821	70,001	20.13	1.11	4.13	0.88	4.63	
Tensift	2,351,757	577,327	24.55	2,944,591	868,230	29.49	3,546,768	1,328,110	37.45	2.06	3.78	1.56	3.61	
El Kelaa des Sraghna	461,146	29,957	6.50	577,595	71,605	12.40	682,428	131,094	19.21	2.07	8.24	1.40	5.17	
Essaouira	343,401	32,465	9.45	393,683	46,858	11.90	433,681	75,437	17.39	1.25	3.39	0.81	4.05	
Marrakech *3	992,665	352,822	35.54	1,266,695	482,605	38.10	1,608,095	745,541	46.36	2.24	2.89	2.01	3.69	
Safi	554,545	162,083	29.23	706,618	267,162	37.81	822,564	376,038	45.72	2.23	4.65	1.27	2.89	
Center	4,101,965	2,059,996	50.22	5,559,658	3,121,337	56.14	6,931,418	4,223,981	60.94	2.80	3.85	1.85	2.55	
Azilah	326,713	7,140	2.19	387,115	32,339	8.35	454,914	61,973	13.62	1.55	14.72	1.35	5.57	
Beni Mellal	441,708	117,296	26.56	668,703	255,817	38.26	869,748	386,505	44.44	3.84	7.35	2.21	3.50	
Ben Slimane	141,664	22,244	15.70	174,464	34,262	19.64	213,398	64,516	30.23	1.91	4.01	1.69	5.42	
Casablanca *4	1,696,719	1,582,316	93.26	2,436,664	2,263,469	92.89	3,094,203	2,940,623	95.04	3.35	3.31	2.01	2.20	
El Jadida	590,923	92,185	15.60	763,351	150,037	19.66	970,894	240,068	24.75	2.35	4.53	2.02	3.99	
Khouribga	328,304	143,170	43.61	437,002	241,457	55.25	480,839	294,680	61.28	2.63	4.87	0.80	1.67	
Settat	575,934	95,645	16.61	692,359	143,956	20.79	847,422	235,616	27.80	1.69	3.79	1.70	4.19	
North-West	2,975,342	1,306,914	43.92	4,105,387	2,124,711	51.75	5,646,716	3,322,954	58.85	2.97	4.52	2.69	3.80	
Chefchaouen	247,766	16,497	6.66	309,024	26,499	8.58	439,303	42,914	9.77	2.03	4.40	2.97	4.10	
Kenitra	520,556	185,153	35.57	715,967	294,370	41.12	979,210	448,785	45.85	2.94	4.31	2.64	3.58	
Khemisset	348,208	48,647	13.97	405,836	115,155	28.37	485,541	174,974	36.04	1.40	8.15	1.51	3.55	
Rabat *5	617,587	534,114	86.48	1,020,001	893,042	87.55	1,500,061	1,385,872	92.39	4.67	4.78	3.27	3.73	
Sidi Kacem	414,586	72,224	17.42	514,127	118,713	23.09	645,872	175,360	27.15	1.98	4.62	1.92	3.30	
Tanger	285,660	201,968	70.70	436,227	312,227	71.57	627,963	526,215	83.80	3.92	4.04	3.08	4.45	
Tetouan *6	540,979	248,311	45.90	704,205	364,725	51.79	968,766	568,834	58.72	2.43	3.56	2.69	3.77	

Table 2.3-2 Population Changes (1971-1982-1994) (2)

Province/Prefecture	Population 1971			Population 1982			Population 1994			Annual Growth Rate (%)				
	Total	Urban Population		Total	Urban Population		Total	Urban Population		Total	1971-1982		1982-1994	
		Share (%)	Urban Population		Share (%)	Urban Population		Share (%)	Urban Population		Total	Urban	Total	Urban
Center North	1,891,714	479,090	25.33	2,397,689	749,625	31.26	3,042,310	1,284,931	42.24	2.18	4.15	2.00	4.59	
Al Hoceima	246,594	22,496	9.12	311,298	59,490	19.11	382,972	112,588	29.40	2.14	9.24	1.74	5.46	
Boulemane	106,329	5,399	5.08	131,470	12,493	9.50	161,622	36,781	22.76	1.95	7.93	1.74	9.42	
Fes #7	590,541	371,573	62.92	805,464	548,209	68.06	1,160,851	877,107	75.56	2.86	3.60	3.09	3.99	
Taounate	449,912	8,732	1.94	535,972	21,173	3.95	628,840	52,274	8.31	1.60	8.39	1.34	7.82	
Taza	498,338	70,890	14.23	615,485	108,260	17.65	708,025	206,181	29.12	1.91	3.92	1.20	5.52	
Oriental	1,155,958	359,364	31.09	1,475,376	630,433	42.73	1,768,691	975,978	55.18	2.24	5.24	1.52	3.71	
Figigu	88,252	19,841	22.48	101,359	36,452	35.96	117,011	51,087	43.66	1.27	5.69	1.20	2.85	
Nador	480,517	44,176	9.19	593,255	115,062	19.40	683,914	246,113	35.99	1.93	9.09	1.19	6.54	
Oujda #8	587,189	295,347	50.30	780,762	478,919	61.34	967,766	678,778	70.14	2.62	4.49	1.81	2.95	
Center South	1,187,976	410,094	34.52	1,512,046	626,225	41.42	1,903,790	965,682	50.72	2.22	3.92	1.94	3.68	
Errachidia	332,679	30,716	9.23	421,207	64,731	15.37	522,117	155,280	29.74	2.17	7.01	1.81	7.56	
Ifrane	81,155	30,920	38.10	100,255	44,547	44.43	127,677	61,063	47.83	1.94	3.38	2.04	2.66	
Khenifra	281,964	60,027	21.29	363,716	130,862	35.98	465,061	219,168	47.13	2.34	7.34	2.07	4.39	
Meknes #9	492,178	288,431	58.60	626,868	386,085	61.59	788,935	530,171	67.20	2.22	2.69	1.93	2.68	
Total	15,379,259	5,401,971	35.15	20,419,555	8,730,399	42.76	26,073,717	13,415,659	51.45	2.61	4.46	2.06	3.64	

Notes:

*1: Consists of Agadir-Ida-Tanane, Chouka-Air Baha and Inezgane-Ait Melloul.

*2: Consists of Guélimin and Assa-Zag.

*3: Consists of Marrakech-Ménara, Marrakech-Médina, Sidi-Youssef-Ben-Alli, Chichaoua and Al Haouz.

*4: Consists of Ain Chook-Hay Hassani, Ain Sebba-Hay Mohammedi, Ben M'sick-Sidi Othmane, Casablanca-Anfa, Al Fida-Derb-Sultan, Sidi Bernoussi-Zenata, Mechouar de Casablanca and Mohammedia.

*5: Consists of Rabat, Sale and Skhirate-Temara.

*6: Consists of Tetouan and Larache.

*7: Consists of Fes El Jadid-Dar Dhibagh, Fes-Médina, Zouagha-Moulay Yacoub and Seifou.

*8: Consists of Oujda-Angad, Berkane-Taourirt and Jerada.

*9: Consists of Meknes-EI menzeh, Al Ismailia and El Hjeb.

Source: Direction de la Statistique

3) Urban Population

According to the Report of Population Census by Direction of Statistic, it defines «urban» as urban commune (either municipality or autonomous center), or as delimited center of a rural commune. A urban commune, which receives the municipality status through Decree, is a local government operated within a Prefecture/province. While a delimited center is a part of a rural commune area of which boundary is fixed by a statutory way. Both populations within those areas are counted as «urban population» in population census.

Urbanization in Morocco has remarkably been rapid, with estimated average annual growth rate at around 4 percent over 1960-1994, while the growth rate of rural population was almost stagnant in the latest period over 1982-1994. The urban population was approximately 30 percent in 1960 when the population census covered whole country, and it surpassed the rural population in 1994. These figures imply that the urban areas have not absorbed only its natural growth but also a large number of migrants from the rural areas.

Table 2.3-2 shows the population changes by provinces/prefectures. Not surprisingly urban shares of the total population in the economic regions of «Center» and «North-West» are about 60 % due to the heavily urbanized Casablanca and Rabat.

It is obvious that many of provinces/prefectures in the economic region of South have high level of urbanization, however, all of those population sizes are small except Agadir. Many of urban centers in those provinces are targeted for rapid development and located in arid Sahara, thus the figures of urbanization present high level.

The most urbanized city, in term of the population size, is Casablanca where the economic activities concentrate, and then Rabat as the administrative city.

4) Distribution of Population by Economic Region

The Kingdom of Morocco is divided into 7 Economic Zones because of the regional development policy and the geographical conditions. They are, South, Tensift, Center, North-West, Center North, Oriental and Center South.

Center and North-West are more developed than the others because of their favorable geography such as fronting on Atlantic Sea, the large scale of plain, mild climate, agricultural potential and so on. The population of those 2 regions account for approximately 50 percent of the whole kingdom's population though their areas cover only 10 percent of kingdom's territory. And the progress of urbanization is also remarkable in those 2 regions, with estimated distribution rate at 56 percent of the whole urban population. Table 2.3-3 shows the regional distribution of population in 1994, and Fig 2.3-3 shows the population density by prefectures/provinces.

Both economic regions of North-West and Center have comparatively high population densities and some of the prefectures/provinces in both may be reaching upper limit of population absorption capacity, such as Casablanca (1,920 person/km²), Rabat/Salé/Temara (1,180), and Tanger (530).

Table 2.3-3 Regional Distribution of Population in 1994 (1)

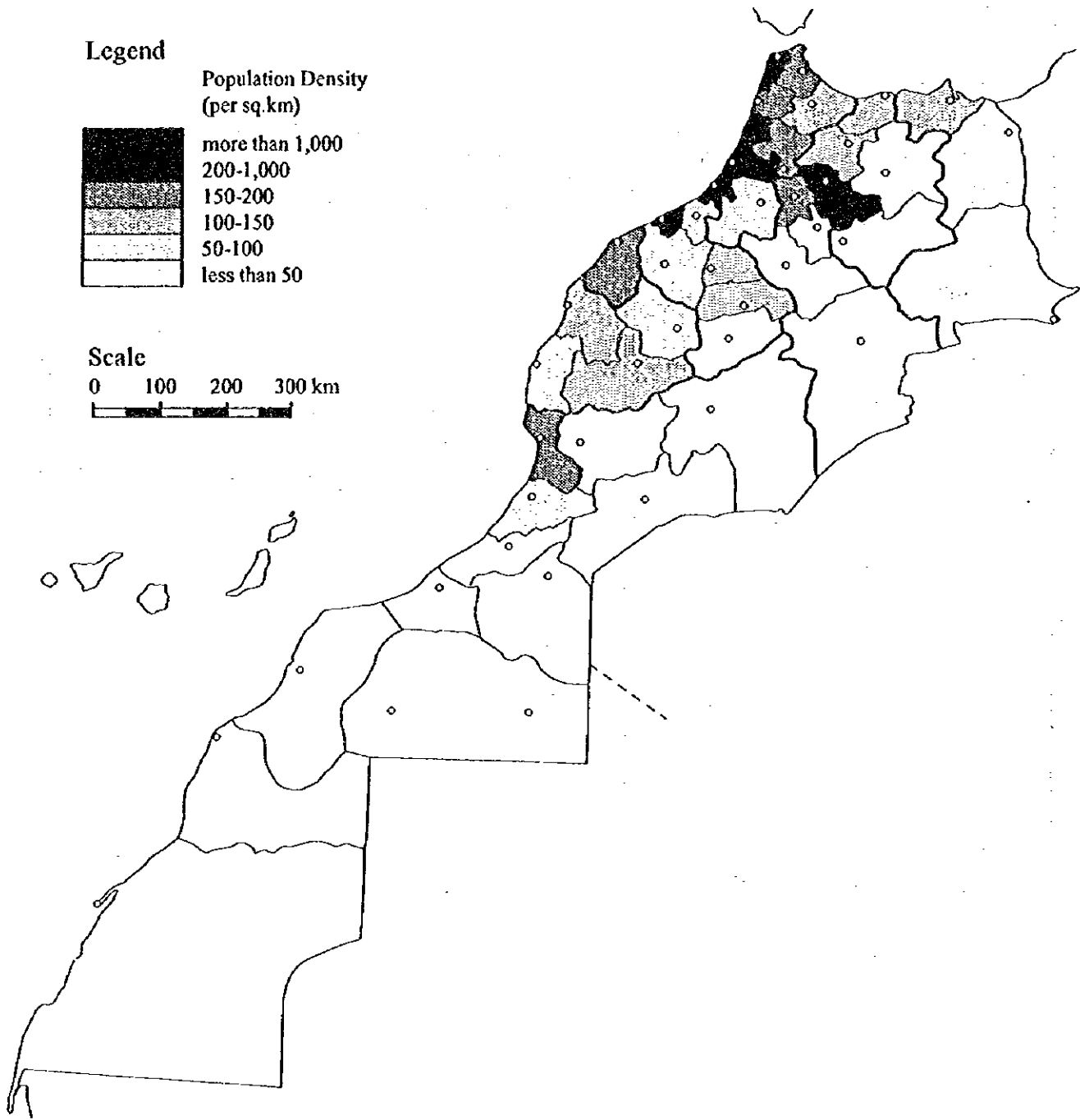
Province/Prefecture	No. of Cercles	No. of Communes			Area (sq.km)	Population	Density (per sq.km)	Distribution (%)
		Urban	Rural	Total				
South	36	44	282	326	394,970	3,234,024	8.2	12.40
Agadir-Ida-ou-Tanane	1	4	12	16	5,910	365,965	152.1	1.40
Chtouka-Ait Baha	3	2	20	22		240,092		0.92
Inergane-Ait Melloul	1	3	3	6		292,799		1.12
Assa-Zag	2	2	5	7	28,750	21,848	5.9	0.08
Guelmim	2	2	18	20		147,124		0.56
Boujdour	1	1	3	4	100,120	21,691	0.2	0.08
Es-Semara	1	1	5	6	61,760	39,726	0.6	0.15
Laayoune	2	3	7	10	39,360	153,978	3.9	0.59
Ouarzazate	4	7	55	62	41,550	694,884	16.7	2.67
Oued-Ed-Dahab	4	2	11	13	50,880	36,751	0.7	0.14
Tan-Tan	2	2	5	7	17,295	58,079	3.4	0.22
Taroudannt	5	7	82	89	16,460	693,968	42.2	2.66
Tata	3	4	16	20	25,925	119,298	4.6	0.46
Tiznit	5	4	40	44	6,960	347,821	50.0	1.33
Tensift	20	25	228	253	38,445	3,546,768	92.3	13.60
El Kelaa des Sraghna	4	5	62	67	10,070	682,428	67.8	2.62
Essaouira	2	5	52	57	6,335	433,681	68.5	1.66
Marrakech-Menara	1	2	7	9	14,755	432,547	109.0	1.66
Marrakech-Medina	0	1	0	1		189,367		0.73
Sidi Youssef Ben Ali	1	2	6	8		239,291		0.92
Chichaoua	4	2	33	35		311,800		1.20
Al Haouz	4	1	38	39		435,090		1.67
Safi	4	7	30	37	7,285	822,564	112.9	3.15
Center	26	58	231	289	41,500	6,931,418	167.0	26.58
Azilal	4	2	42	44	10,050	454,914	45.3	1.74
Beni Mellal	5	7	31	38	7,075	869,748	122.9	3.34
Ben Slimane	2	2	17	19	2,760	213,398	77.3	0.82
Ain Chock-Hay Hassani	1	5	3	8	1,615	516,261	1915.9	1.98
Ain Sebaa-Hay Mohammedi	0	4	0	4		520,993		2.00
Ben M'sik-Sidi Othmane	0	6	0	6		704,365		2.70
Casablanca-Anfa	0	4	0	4		523,279		2.01
Al Fida-Derb Sultan	0	4	0	4		386,700		1.48
Sidi Bernoussi-Zenata	1	4	3	7		268,586		1.03
Mohammedia	0	1	0	1		170,063		0.65
Mechouar de Casablanca	0	1	0	1		3,956		0.02
El Jadida	5	5	47	52	6,000	970,894	161.8	3.72
Khouribga	3	5	26	31	4,250	480,839	113.1	1.84
Settat	5	8	62	70	9,750	847,422	86.9	3.25

Table 2.3-3 Regional Distribution of Population in 1994 (2)

Province/Prefecture	No. of Cercles	No. of Communes			Area (sq.km)	Population	Density (per sq.km)	Distribution (%)
		Urban	Rural	Total				
North-West	25	42	188	230	29,955	5,646,716	188.5	21.66
Chefchaouen	4	1	33	34	4,350	439,303	101.0	1.68
Kenitra	4	6	27	33	4,745	979,210	206.4	3.76
Khemisset	4	3	32	35	8,305	485,541	58.5	1.86
Rabat	0	5	0	5	1,275	623,457	1176.5	2.39
Sale	1	5	2	7		631,803		2.42
Skhirate-Temara	2	4	6	10		244,801		0.94
Sidi Kacem	4	6	34	40	4,060	645,872	159.1	2.48
Tanger	2	4	12	16	1,195	627,963	525.5	2.41
Tetouan	2	6	25	31	6,025	537,290	160.8	2.06
Larache	2	2	17	19		431,476		1.65
Center North	21	29	166	195	43,950	3,042,310	69.2	11.67
Al Hoceima	3	4	31	35	3,550	382,972	107.9	1.47
Boulemane	3	3	17	20	14,395	161,622	11.2	0.62
Fes El Jadid-Dar Dbibagh	0	3	1	4	5,400	256,340	215.0	0.98
Zouagha My Yacoub	2	2	9	11		382,594		1.47
Fes Medina	0	1	3	4		284,822		1.09
Sefrou	3	5	18	23		237,095		0.91
Taounate	4	5	44	49	5,585	628,840	112.6	2.41
Taza	6	6	43	49	15,020	708,025	47.1	2.72
Oriental	14	25	91	116	82,820	1,768,691	21.4	6.78
Figuig	2	2	10	12	55,990	117,011	2.1	0.45
Nador	4	5	41	46	6,130	683,914	111.6	2.62
Oujda Angad	1	6	8	14	20,700	419,063	46.8	1.61
Berkane-Taourirt	4	8	17	25		399,017		1.53
Jerada	3	4	15	19		149,686		0.57
Center South	17	25	111	136	79,210	1,903,790	24.0	7.30
Errachidia	7	8	39	47	59,585	522,117	8.8	2.00
Ifrane	1	2	8	10	3,310	127,677	38.6	0.49
Khenifra	3	3	35	38	12,320	465,061	37.7	1.78
Meknes El Menzeh	2	4	11	15	3,995	293,525	197.5	1.13
Al Ismailia	1	4	6	10		314,916		1.21
El Hajeb	3	4	12	16		180,494		0.69
Total	159	248	1,297	1,545	710,850	26,073,717	36.7	100.00

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

Fig 2.3-3 Population Density by Prefectures/Provinces in 1994



2.3.2 Comparison between Urban and Rural Areas

According to the «Living Standard Measurement Survey» implemented in 1991 with World Bank's support, the imbalances between urban and rural areas are shown in Table 2.3-4.

Table 2.3-4 Selected Indicators in Urban/Rural Areas

	Urban	Rural
Average household size	5.20	6.20
Active people per household *	1.74	2.70
No. of wages earners per household	0.86	0.45
Average monthly wages (DH)	1649	920
Unemployment rates	20.60	5.60
Mean months of unemployment	22.20	11.00
% of population living in shacks	9.30	72.10
% of households with potable water	91.90	14.20
% of households with garbage pickup	84.80	2.00
% of population with electricity	90.40	12.70
Literacy rates (for population aged 10 and older)	60.50	31.70
Mean distance in km to place of health consultation	7.64	24.13
Mean distance in km to primary school attended	1.58	2.18

Notes: *Active people are defined as those aged 7 and above who are active in income earning activities and/or unemployed aged 15 and above.

Source: Kingdom of Morocco Poverty, Adjustment, & Growth / World Bank 1994

Over the period of 1971-1994, the urban population in Morocco rose from 35 % to 51 % of the country's total population. The strong growth of urban population is mainly caused by rural migration. Emigrants are pushed out of the rural areas by lack of earning opportunities and are attracted to the cities by the expectations of employment and by the reality of better economic and social services. As shown in Table 2.3-4, however, unemployment rate in urban areas is higher than rural areas. It is supposed that the strong growth of labor force driven by migration from rural areas has surpassed the availability of employment opportunities in urban areas.

2.3.3 Outline of Regional Characteristics

1) Employment

In Morocco, the younger generation has a large share in total population, thus unemployment is a significant problem. According to the population census in 1982, the active people are estimated at approximately 30 % of the total population. In 1993, the share of those people have largely increased, with estimated rate at 47.9 %.

Unemployment rate has also increased. The country's unemployment rate in 1993 is estimated at 15.9 %, while its rate was at 12.1 % according to the «Living Standard Measurement Survey» in 1991. The youth (15-24 years) unemployment rate is even higher, at 30.2 %.

It is deemed that the increase of unemployment rate is caused by the drought since 1992 and the contraction of employment market in Europe (which has served to keep down the rate of joblessness in Morocco), not to the rapid population growth.

Table 2.3-5 shows the population and unemployment rate by age, and Table 2.3-6 shows the active people and unemployment rate by economic regions.

Table 2.3-5 Population and Unemployment Rate by Age

Age	Population		Unemployment
	('000)	Distribution (%)	Rate (%)
0-14	9,850	38	-
15-24	5,489	21	30.2
25-34	3,984	15	20.0
35-44	2,558	10	5.4
45 and above	4,188	16	less than 3.8
Total	26,069	100	15.9

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

Kingdom's active people is estimated at 47.9 % of total population in 1993. The economic region of Center has the largest share of active people, with estimated at 51.8 %, due to the concentration of labor force to Casablanca. However, unemployment rate in this region is relatively high. This implies that, even the most developed region of Center, its employment opportunity has reached a saturated point.

Oriental is the least share of active people at 39.1 %, especially women's active people at 7.6 %. This region shows the highest unemployment rate at both male and female.

Center North has also higher unemployment rate, with estimated at 19.0 %. This region's major industry is agriculture, thus it may be largely reflected by the effect of drought in 1992-93.

Table 2.3-6 Active People and Unemployment Rate by Economic Regions

Regions	Active people (%)			Unemployment rate (%)		
	Male	Female	Total	Male	Female	Total
South	78.2	22.4	50.6	10.9	15.2	11.9
Tensift	73.8	23.6	48.7	12.9	27.6	16.5
Center	75.1	27.8	51.8	16.2	23.1	18.0
North-West	70.3	17.1	44.2	11.2	16.0	12.1
Center North	73.0	21.0	47.1	16.4	28.0	19.0
Oriental	70.5	7.6	39.1	21.3	31.3	22.3
Center South	70.1	25.3	47.5	9.5	15.3	11.0
Total	73.1	22.1	47.9	14.2	21.7	15.9

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

2) Poverty and Health

In the study of World Bank, it is reported that 13.1 % of total population are poor. Poverty incidences of the economic regions of Center and North-West are very low, with estimations of 6.78 % and 9.36 % respectively, compared to other economic regions. Because those 2 regions are more developed than others, and include Casablanca and Rabat, two of the most important urban centers in the country.

Regional allocation of budget from the Ministry of Health is biased toward the North-West region, compared to the regional distribution of population. 34.1 % of regional public health expenditure is allocated to the North-West region for only 21.7 % of the total population.

Hospital beds and public doctors also concentrate in this region, mainly in Casablanca. Regional disparity in number of public doctors is especially remarkable. There are 19 public doctors per 1,000 inhabitants in the North-West region, while there are only about 6 per 1,000 inhabitants in Oriental and Tensift regions.

Table 2.3-7 shows the differences among economic regions about poverty and health

Table 2.3-7 Indications of Poverty and Health Facilities by Region / 1990-91

	Population (%)	Poverty incidence (%)	Health Expenditures (%)	Hospital Beds per 1000 hb	Public Doctors per 1000 hb	Private Doctors per 1000 hb
South	11.7	16.92	8.8	0.93	7.6	3.5
Tensift	13.4	16.95	9.6	0.99	6.0	5.0
Center	27.7	6.78	27.0	1.00	9.8	14.0
North-West	21.7	9.36	34.1	1.30	19.0	11.0
Center North	11.3	20.98	7.8	0.85	7.5	6.8
Oriental	7.2	19.05	5.2	0.76	5.7	7.5
Center South	7.0	19.27	7.5	1.36	10.0	6.0
National	100.0	13.10	100.0	1.00	10.5	8.8

Source: Kingdom of Morocco Poverty, Adjustment, & Growth / World Bank 1994

3) Agriculture

Agriculture is a key industry in Morocco's economy. In 1994, its share in GDP is estimated at 19.5 %, and about 40 % of the workforce is engaged in agriculture. However, agriculture in Morocco is highly subjected to the meteorological conditions, namely, the production declines extremely in drought year. Most of the best agricultural land is found in the coastal regions, both in the plains and piedmont, particularly along the Atlantic coast, although the Middle Atlas is also important for agriculture.

Principal farm product is cereals, mainly hard and soft wheat, barley and maize. In the 1993/94 crop year 6m ha were planted to cereals, and the area was estimated at 65.4 % of the kingdom's cultivable land. Cereal production levels depend largely on rainfall (in the November to March period), as shown in Table 2.3-8.

Table 2.3-8 Trend of Cereal Production

	Production (million tons)				
	89/90	90/91	91/92	92/93	93/94
Hard wheat	1.62	2.22	0.68	0.63	2.34
Soft wheat	2.00	2.72	0.88	0.94	3.18
Barley	2.14	3.25	1.08	1.03	3.72
Maize	0.44	0.34	0.22	0.09	0.20
Others	0.07	0.13	0.08	0.12	0.19
Total	6.27	8.66	2.94	2.81	9.63

Source: Annuaire Statistique du Maroc 1995

Cereals are mainly produced in Center, North-West, Tensift and Center North of economic regions. Settat and Kénitra are the most productive provinces, with estimated at 21.6 % of the kingdom's cereal products in 1994.

Leguminous plants like broad beans, peas and so on, are planted at Kénitra, Khemisset, Taounate and Taza, production of those provinces is estimated at 52.5 % of whole products. Sugar cane and beet are dominant in Beni Mellal, El Jadida, Kénitra and Tetouan due to irrigation systems. Plantations such as olive tree, almond tree, citrus fruits are mainly in Tensift and Center North regions.

Major agricultural products by prefectures/provinces are shown in Table 2.3-9.

Table 2.3-9 Major Agricultural Products by Prefectures/Provinces in 1994

Prefectures /Provinces	Cereals		Leguminous plant		Sugar cane and beet		Plantations	
	C. Area ('000 ha)	Prod. ('000 tons)	C. Area ('000 ha)	Prod. ('000 tons)	C. Area ('000 ha)	Prod. ('000 tons)	C. Area ('000 ha)	Prod. ('000 tons)
South	307.4	224.1	2.0	1.0	0.0	0.0	62.0	n/a
Agadir	166.5	102.1	1.3	0.9	-	-	33.8	n/a
Guelmim	3.5	2.5	-	-	-	-	0.6	n/a
Ouarzazate	53.4	103.2	0.7	0.1	-	-	23.3	n/a
Tata	6.3	8.1	-	-	-	-	2.5	n/a
Tiznit	77.7	8.2	-	-	-	-	1.8	n/a
Tensift	1,501.9	1,933.5	33.0	24.5	0.0	0.0	136.6	n/a
El Kelaa	422.7	633.6	8.6	8.7	-	-	47.3	n/a
Essaouira	244.5	199.7	6.5	0.8	-	-	15.2	n/a
Marrakech	387.4	544.4	2.5	2.3	-	-	68.9	n/a
Safi	447.3	555.8	15.4	12.7	-	-	5.2	n/a
Center	1,650.0	3,074.0	42.6	37.6	32.6	1,827.9	66.8	n/a
Azilal	125.6	209.8	5.1	3.4	0.8	34.5	10.6	n/a
Beni Mellal	269.9	580.5	8.1	13.3	14.4	662.4	35.5	n/a
Ben Slimane	114.7	289.0	8.2	5.8	-	-	0.0	n/a
Casablanca	40.8	103.6	0.5	0.5	-	-	0.1	n/a
El Jadida	363.7	558.4	9.4	5.7	17.4	1,131.0	17.8	n/a
Khouribga	208.4	259.9	0.1	0.1	-	-	1.0	n/a
Settat	526.9	1,072.8	11.2	8.8	-	-	1.8	n/a
North-West	968.5	1,990.2	121.0	91.4	47.5	2,085.2	93.2	n/a
Chefchouen	68.7	96.8	14.0	8.7	-	-	15.5	n/a
Kenitra	381.6	1,002.2	55.5	38.5	37.0	1,616.1	43.0	n/a
Khemisset	312.1	595.1	30.6	28.2	-	-	16.7	n/a
Rabat	32.2	40.2	0.2	0.0	-	-	9.3	n/a
Tanger	35.5	48.7	3.2	2.2	-	-	0.2	n/a
Tetouan	138.4	207.2	17.5	13.8	10.5	469.1	8.5	n/a
Center North	697.7	1,108.3	119.8	104.8	0.0	0.0	164.8	n/a
Al Hoceima	92.7	117.1	5.2	2.7	-	-	8.6	n/a
Boulemane	16.5	17.7	1.7	1.3	-	-	5.2	n/a
Fes	156.7	283.2	23.4	22.2	-	-	31.5	n/a
Taounate	205.3	367.9	48.6	40.3	-	-	78.1	n/a
Taza	226.5	322.4	40.9	38.3	-	-	41.4	n/a
Oriental	560.4	617.4	4.1	1.4	3.7	133.8	61.5	n/a
Figuig	25.5	36.6	0.1	0.1	-	-	1.8	n/a
Nador	265.1	356.4	2.7	1.0	2.3	84.5	27.7	n/a
Oujda	269.8	224.4	1.3	0.3	1.4	49.3	32.0	n/a
Center South	387.7	680.8	24.3	16.0	0.0	0.0	74.9	n/a
Errachidia	28.3	57.1	0.8	1.3	-	-	12.4	n/a
Ifrane	85.3	117.5	2.2	1.4	-	-	6.0	n/a
Khenifra	113.5	147.4	0.3	0.2	-	-	5.5	n/a
Meknes	160.6	358.8	21.0	13.1	-	-	51.0	n/a
Total	6,073.6	9,628.3	346.8	276.7	83.8	4,046.9	659.8	n/a

Source: Enquete Agricole 1993-1994 / Ministere de l'Agriculture et de la Mise en Valeur Agricole, 1995

4) Manufacturing Industries

In 1994, gross regional product (GDP) of Morocco is 286,030 million DH at market price, and share of manufacturing industries is estimated at 17.2 %. Although the government has attached great importance to the development of a strong and diversified manufacturing sector as a source for both economy and employment, its share has not changed practically in the last few years. Most of manufacturing industries are highly concentrated in northwestern coastal area, especially in Casablanca.

The total production of manufacturing industries is 124,062 million DH in 1994. The share of Casablanca is estimated at 50 %. The principal sectors of manufacturing industries are food, chemicals and textiles, and shares of those sectors' production are estimated at 28.0 %, 15.9 % and 9.6 % respectively.

Table 2.3-10 shows the production of manufacturing industries by provinces/ prefectures. Ten (10) prefectures/provinces account for 86 % of the total production; Casablanca, El Jadida, Safi, Fès, Kénitra, Rabat, Agadir, Tanger, Tetouan and Marrakech, in order of the production.

Table 2.3-10 Production of Manufacturing Industries by Prefectures/Provinces in 1994 (1)

Prefectures/Provinces	Population	Industrial Production			No. of Factories	No. of Effective Employees	Major Sector
		Total (Thousand DH)	Distribution (%)	per capita (DH)			
South	3,234,024	5,941,046	4.8	1,837.0	296	22,662	
Agadir *1	898,856	4,381,168	3.5	4,874.2	226	14,007	Food, Mining Products
Boujdour	21,691	-	-	-	-	-	
Es-Semara	39,726	-	-	-	-	-	
Guelmim *2	168,972	140,496	0.1	831.5	3	161	
Laayoune	153,978	20,979	0.0	136.2	7	199	
Quarzazate	694,884	178,180	0.1	256.4	6	187	
Oued-Ed-Dahab	36,751	33,417	0.0	909.3	7	148	
Tan-Tan	58,079	445,474	0.4	7,670.1	9	700	Food
Taroudannt	693,968	135,998	0.1	196.0	14	5,895	
Tata	119,298	-	-	-	-	-	
Tiznit	347,821	605,334	0.5	1,740.4	24	1,365	
Tensift	3,546,768	9,956,214	8.0	2,807.1	386	34,522	
El Kelaa des Sraghna	682,428	173,624	0.1	254.4	10	242	
Essouira	433,681	272,016	0.2	627.2	38	1,745	
Marrakech *3	1,608,095	3,653,789	3.0	2,272.1	235	17,502	Food
Safi	822,564	5,856,785	4.7	7,120.2	103	15,033	Chemicals
Center	6,931,418	75,243,898	60.7	10,855.5	3,314	239,587	
Azilal	454,914	501	-	1.1	2	15	
Beni Mellal	869,748	1,262,313	1.0	1,451.4	49	6,383	
Ben Slimane	213,398	308,823	0.3	1,447.2	38	1,173	
Casablanca *4	3,094,203	62,657,706	50.5	20,243.6	2,956	212,594	Food, Textiles, Metal Manufactures, Chemicals
El Jadida	970,894	7,130,957	5.8	7,344.7	124	9,953	Food, Chemicals
Khouribga	480,859	555,951	0.5	1,156.2	25	1,008	
Settat	847,422	3,347,647	2.7	3,950.4	120	8,461	Food, Mining Products
North-West	5,646,716	18,545,105	15.0	3,284.2	1,265	97,966	
Chefchaouen	439,303	11,553	0.0	26.3	5	55	
Kenitra	979,210	4,677,780	3.8	4,777.1	154	13,022	Food, Paper & Cardboard
Khemisset	485,541	334,294	0.3	688.5	29	1,692	
Rabat *5	1,500,061	4,660,513	3.8	3,106.9	448	35,878	
Sidi Kacem	645,872	864,686	0.7	1,338.8	30	3,049	
Tanger	627,963	4,178,604	3.4	6,654.2	383	31,552	Textiles
Tetouan *6	968,766	3,817,675	3.1	3,940.8	214	12,718	Food, Paper & Cardboard

Table 2.3-10 Production of Manufacturing Industries by Prefectures/Provinces in 1994 (2)

Prefectures/Provinces	Population	Industrial Production			No. of Factories	No. of Effective Employees	Major Sector
		Total (Thousand DH)	Distribution (%)	per capita (DH)			
Center North	3,042,310	5,849,961	4.7	1,922.9	483	27,168	
Al Hoceima	382,972	33,833	0.0	88.3	30	588	
Boulemane	161,622	1,367	-	8.5	1	50	
Fes *7	1,160,851	5,231,805	4.2	4,506.9	381	23,489	Food, Textiles
Taounate	628,840	8,444	0.0	13.4	9	68	
Taza	708,025	574,512	0.5	811.4	62	2,973	
Oriental	1,768,691	5,208,476	4.2	2,944.8	270	10,858	
Figuiq	117,011	-	-	-	-	-	
Nador	685,914	2,935,345	2.4	4,292.0	128	3,774	Base Metal Products
Oujda *8	967,766	2,273,131	1.8	2,348.8	142	7,084	Food, Mining Products
Center South	1,903,790	3,317,801	2.7	1,742.7	211	12,459	
Errachidia	522,117	188,418	0.2	360.9	13	399	
Ifrane	127,677	28,283	0.0	221.5	14	215	
Khenifra	465,061	14,713	0.0	31.6	5	63	
Meknes *9	788,935	3,086,387	2.5	3,912.1	179	11,782	Food, Mining Products
Total	26,073,717	124,062,501	100.0	4,758.1	6,223	445,222	

Notes:

*1: Consists of Agadir-Ida-Tanane, Chirouka-Ait Baha and Inezgane-Ait Melloul.

*2: Consists of Guelmin and Assa-Zag.

*3: Consists of Marrakech-Menara, Marrakech-Medina, Sidi-Youssef-Ben-Ali, Chichaoua and Al Haouz.

*4: Consists of Ain Chock-Hay Hassani, Ain Sebaa-Hay Mohammedi, Ben M'sick-Sidi Othmans, Casablanca-Anfa, Al Fida-Debb-Sultan, Sidi Bernoussi-Zenata, Mechour de Casablanca and Mohammedia.

*5: Consists of Rabat, Sale and Skhirate-Terrara.

*6: Consists of Tétouan and Larache.

*7: Consists of Fes El Jadid-Dar Dbibagh, Fes-Medina, Zougaha-Moulay Yacoub and Sefrou.

*8: Consists of Oujda-Angad, Berkane-Taourirt and Jerada.

*9: Consists of Meknes-El menzeh, Al Ismailia and El Hjob.

Source: Ministère du Commerce de l'Industrie et de l'Artisanat

5) Tourism

Morocco is blessed with tourism resources such as rich variety of land, natural contrast and cultural heritage. The tourism industry is the largest foreign exchange earner next to the remittance from migrant workers outside the country, thus this industry has been given priority in the national economic plans. The industry recovered in 1992 from the downturn caused by the 1990/91 Gulf crisis, with both visitor numbers and receipts well up on 1991, as shown in Table 2.3-11. However, since 1993, tourism in Morocco has suffered a decline.

At 6 %, Morocco has one of the lowest rates of returning tourists. Insufficient policy, low quality of services and maintenance of equipment at high-class hotels are considered to be some of the causes for this. Thus the Ministry of Tourism has wrestled with readjustment of grading to the hotels since 1991.

Table 2.3-11 Tourist Trends

	1989	1990	1991	1992	1993	1994
Foreign tourists	2,518	2,978	3,190	3,252	2,946	2,294
Cruise visitors	97	114	49	115	123	n/a
Moroccans resident abroad	953	1,046	972	1,138	1,082	n/a
Total visitors	3,556	4,138	4,211	4,505	4,151	n/a
Receipts (million Dh)	8,610	10,548	8,822	11,703	11,479	11,308
Ave. earning per visitor (Dh)	2,414	2,549	2,095	2,589	2,766	n/a

Notes: Numbers of visitors are represented in thousand.

Source: EIU Country Profile 1995-1996

Tourist destinations in Morocco are mainly Agadir, Marrakech, Casablanca and Tanger, as shown in Table 2.3-12. In 1994, 35 % of whole country's hotels are located in those 4 prefectures/provinces, and have 53 % of total beds. The different shares between number of hotels and beds imply that large sized hotels are mainly concentrated in those prefectures/provinces. The large share of tourist nights is estimated at 67 % of the whole country.

Table 2.3-12 Accommodations and Tourist Nights by Prefectures/Provinces

Year 1994

Prefectures/Provinces	Accommodations				Tourist Nights		
	Classified Hotels		Unclassified Hotels		Classified Hotels	Unclassified Hotels	Total
	No. of Hotel	No. of Beds	No. of Hotel	No. of Beds			
South	145	28,002	172	3,600	4,818,578	194,834	5,013,412
Agadir	88	20,694	20	395	4,184,555	50,672	4,235,227
Laayoune	6	614	17	588	86,739	37,859	124,598
Ouarzazate	28	4,884	29	632	432,867	21,657	454,524
Oued-Ed-Dahab	2	82	6	75	-	4,284	4,284
Tan-Tan	3	145	29	500	1,903	9,433	11,336
Taroudannt	5	751	24	422	80,916	37,066	117,982
Tata	2	210	4	102	6,370	5,651	12,021
Tiznit	11	622	43	886	25,228	28,212	53,440
Tensift	90	18,914	103	2,957	2,519,806	383,337	2,903,143
El Kelaa des Sraghna	3	1,232	-	-	119,332	-	119,332
Essaouira	7	575	17	564	66,563	21,171	87,734
Marrakech	75	16,627	71	2,036	2,291,442	323,083	2,614,525
Safi	5	480	15	357	42,469	39,083	81,552
Center	88	12,067	188	4,488	1,334,377	608,313	1,942,690
Azilal	4	496	14	414	9,639	8,131	17,770
Beni Mellal	12	810	23	425	41,203	38,436	79,639
Ben Slimane	3	294	1	11	2,984	1,773	4,757
Casablanca	51	8,675	103	2,724	1,140,543	487,533	1,628,076
El Jadida	11	635	21	462	44,476	44,961	89,437
Khouribga	2	161	7	126	19,815	7,338	27,153
Mohammadia	3	862	15	300	71,354	18,095	89,449
Settat	2	134	4	26	4,363	2,046	6,409
North-West	114	17,290	247	7,491	1,655,184	855,632	2,510,816
Chefchaouen	5	440	12	273	25,300	10,178	35,478
Kenitra	11	829	34	675	71,817	47,942	119,759
Khemisset	2	97	9	121	5,079	7,249	12,328
Rabat-Sale	34	4,008	44	1,395	474,453	195,245	669,698
Tanger	40	7,527	86	3,625	710,374	381,769	1,092,143
Tctouan	22	4,389	62	1,402	368,161	213,249	581,410
Center North	42	7,080	79	2,556	699,376	274,646	974,022
Al Hoceima	9	2,240	26	972	95,877	130,553	226,430
Fes	31	4,677	47	1,454	594,135	132,057	726,192
Taza	2	163	6	130	9,364	12,036	21,400
Oriental	38	3,000	109	4,395	154,736	430,395	585,131
Nador	11	795	37	1,855	59,093	351,806	410,899
Oujda	27	2,205	72	2,540	95,643	78,589	174,232
Center South	36	3,600	56	1,228	353,615	63,118	416,733
Errachidia	8	820	16	394	93,869	5,670	99,539
Ifrane	9	733	5	79	35,297	16,999	52,296
Khenifra	4	275	19	321	13,978	3,379	17,357
Meknes	15	1,772	16	434	210,471	37,070	247,541
Total	553	89,953	954	26,715	11,535,672	2,810,275	14,345,947

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

Agadir has the biggest beach resort in Morocco, with approximately 300 clear days per year, and mainly attracts wealthy European tourists. Near to Sahara, Marrakech is a tourist foothold inland areas. Casablanca is the biggest business point in Morocco, to which most of foreign visitors are destined by air. And then, Tanger is a gateway to Morocco by sea transport.

6) Sea Ports

Morocco has 8 major sea ports and 11 local sea ports fronting on Mediterranean Sea and Atlantic. The major sea ports have been controlled by the Office d'Exploitation des Ports (ODEP) since 1985. Most of Morocco's Foreign trade rely on the sea transport. In 1988 a petroleum terminal opened at Mohammedia. Casablanca dominates seaborne trade and is the leading container port, however, Mohammedia has increased the handling of those freight recently. Mohammedia and Casablanca together handle most of the hydrocarbons trade, while Casablanca, Jorf Lasfer and Safi are the main ports for the export of phosphate rock. Freight-tons at sea ports are shown in the following table.

Table 2.3-13 Freight-tons at Sea Ports

	Loading ('000 tons)					Unloading ('000 tons)				
	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
Casablanca	9,764	8,263	8,105	7,266	8,198	6,234	6,645	7,743	7,397	6,211
Mohammedia	1,052	1,036	1,307	1,423	1,319	4,858	4,687	6,147	6,717	7,234
Safi	3,225	3,443	2,953	3,047	3,200	1,457	1,350	1,803	1,686	1,590
Kenitra	106	90	91	91	94	206	183	182	181	203
Tanger	326	401	596	681	769	708	790	1,132	1,167	1,088
Nador	349	348	317	342	344	968	979	1,246	1,093	1,129
Agadir	433	682	578	550	690	859	1,042	1,226	1,109	1,157
Jorf Lasfer	3,501	2,850	3,125	3,319	3,435	2,145	2,051	2,138	2,289	2,132
Saharan Ports	1,438	1,189	1,382	1,711	1,641	173	187	238	330	335
Total	20,194	18,305	18,454	18,430	19,690	17,608	17,914	21,855	21,969	21,079

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

As for the fishing, major fishing ports are Agadir, Tan Tan and Safi. Some three-quarters of fish caught to the amount of 609,000 tons of coastal fishery in 1994 are sardines, most of which are canned for export. Table 2.3-14 shows the fish caught by major fishing ports in 1994.

Table 2.3-14 Fish Landing by Fishing Ports

Fishing Ports	Fish Landing (tons)		
	Sardines	Others	Total
Agadir	15,736	61,615	77,351
Tan-Tan	280,183	3,034	283,217
Essaouira	8,221	6,431	14,652
Safi	6,883	7,100	13,983
El Jadida	4,399	1,858	6,257
Casablanca	6,123	28,028	34,151
Mohammedia	577	900	1,477
Rabat	62	126	188
Kénitra	511	2,372	2,883
Larache	4,605	4,033	8,638
Tanger	1,516	5,446	6,962
Al Hoceima	9,100	3,169	12,269
Nador	3,033	6,228	9,261
Other Ports	122,729	14,921	137,650
Total	463,678	145,261	608,939

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

2.3.4 Urban Characteristics

1) Basic Features of Urban Areas

a. General Features

Most of the major cities in Morocco are made up of two parts; Medina and Ville Nouvelle. The Medina which is the original Moroccan town is surrounded by walls. Inside the Medina, as a living space, is crammed with workshop, restaurant, market, mosque, public bath, religious school, and so on, as well as residence along by the narrow and winding alleys.

The Ville Nouvelle which were built by Europeans outside the Medina are replicas of southern European cities. They also newly developed some independent cities because of the exploitation of resources or colonial purposes, of which blocks are generally laid out in simplified grid form, such as Khouribga and El-Rachidia

b. Housing

Housing shortages are a main issue, because of the rapid increase of urban population which has been caused by natural increase of population and migration from rural areas. Parts of urban fringe, especially in Casablanca and Rabat, have spontaneously turned into slums in most of urban centers due to the rapid growth of urban population. Those slums have obstructed systematic development of the urban areas. Decrepitude of Medinas is also a main issue. In 1995 the government launched a long-term program to build 200,000 new homes at a cost of Dh 38bn-40bn. It has tried to encourage the private sector to become involved in housing construction. Government policy is currently directed towards reducing excessive concentrations of population and improving the provision of services such as drainage, drinking water and electricity. However, demand for housing continues to exceed supply.

c. Industrial Zone

Shortages of industrial land and commercial space are ranked by entrepreneurs, as one of their important constraints. In response to the shortages, the government has actively sought to develop industrial and commercial zones throughout the country. All developers of industrial zones have been agencies of the central government, local government, or state-owned companies. But because this effort also had other objectives, including generation of employment, promotion of industrial development outside of the Casablanca region, and the desire to provide local governments with additional sources of revenue. These objectives tend to have priority over the primary objective. As a result, the industrial zones become unattractive for entrepreneurs. Zones in more isolated areas appear to be least attractive, even at very low land prices, because of their distance from the major financial and commercial centers, the shortage of appropriately skilled labor in these areas, greater distance from skilled maintenance services, the lack of infrastructural services which are often expected to entrepreneurs to contribute with the funds needed to complete such construction as roads, water and sewerage services, and maintain them.

Table 2.3-15 shows the situation of industrial zones. As for the existing industrial zones (including both agreed and non agreed zones), the average lots utilization rate is estimated at only 53 %. Zones located in northwestern coast are relatively well utilized, such as Kénitra, Tanger, Rabat, Salé and Casablanca. Khemisset, Marrakech, Fès and Taza are also well utilized, even though those cities are located inland areas.

However, the utilization rates of zones located inland areas are generally low level. Industrial zone of Oued Zem (urban commune) has the least utilization rate at 3 %. Located in province of Khouribga, Oued Zem has a population of 73,900 largely constrained water shortage, and depends on phosphate mining. Industrial zone of Sidi Ifni (urban commune), of which population is 19,700, has also extremely low level of utilization rate at 5 %. This city, facing on the Atlantic ocean, is located in province of Tiznit, but isolated from major trunk road between Agadir and Laayoune. Following those 2 cities, industrial zones of El Kelaa des Sraghna, Khouribga, Beni Mellal and Settat have less utilization rates.

Table 2.3-15 Existing and On-going Industrial Zones in 1995

Industrial Zone	Area (ha)	Price (Dh/m ²)	No. of lots		Unit under production	Unit under construction	Utilization rate (%)
			Total	Available			
Existing (Agreed)							
Beni Mellal I	15	100-140	66	3	7	4	17
El Jadida I	23	78	53	8	20	7	51
Kenitra Birami I	16	60	46	n/a	34	3	80
Khemisset	22	60	84	4	26	43	82
Marrakech (S.Y.B.A)	3	240	145	n/a	59	26	59
Nador	14	70	23	n/a	7	4	48
Oujda	47	150	146	n/a	54	15	47
Sale	19	175	126	n/a	70	28	78
Settat I	11	90	83	n/a	19	9	34
Sidi Ifni	35	60	40	n/a	2	0	5
Existing (Non agreed)							
Agadir Tassila I & II	210	39-149	240	n/a	18	111	54
Agadir Tassila III	40	109-329	87	0	n/a	n/a	n/a
Casa-Ben M'sik	29	150-200	161	23	82	27	68
El Jadida II, III, IV	94	116	291	65	40	58	34
Fes-Sidi Brahim	18	50	55	n/a	34	5	71
Kelaa Sraghna	33	50-130	362	160	25	20	12
Khouribga	7	60	49	n/a	2	4	12
Marrakech-Azli	33	n/a	52	n/a	42	0	81
Marrakech-Sidi Ghanem	122	50-150	457	n/a	145	225	81
Oued Zem	5	60	39	37	0	1	3
Rabat-Takadoum	8	100	79	n/a	78	0	99
Sefrou	5	37	19	n/a	7	4	58
Settat Had-Soualem	54	350	158	34	9	18	17
Tanger	110	40	132	n/a	102	20	92
Taza	12	35	46	2	24	15	85
Temara	20	300	62	n/a	15	10	40
Tetouan	38	70	85	n/a	22	31	62
On-going							
Agadir Tassila ext	11	109-329	80	n/a	n/a	n/a	n/a
Agadir-Ait Melloul	348	50-295	710	273	17	3	3
Beni Mellal II	16	100-140	83	28	n/a	n/a	n/a
Berrechid I	26	250	55	n/a	30	18	87
Berrechid II	10	250	20	n/a	3	4	35
Casa-Dar Bouazza	10	600	124	57	n/a	n/a	n/a
Casa-Ouled Saleh	105	250-2,000	508	385	n/a	n/a	n/a
Casa-Nouaceur (acro)	30	25	n/a	n/a	n/a	n/a	n/a
Casa-Nouaceur	26	450-550	250	156	n/a	n/a	n/a
Fes-Ain Nokbi	20	n/a	530	n/a	n/a	n/a	n/a
Fes-Bensouda I	54	80-100	142	n/a	67	17	59
Fes-Bensouda II	100	160	371	n/a	3	21	6
Kenitra-Birami II	35	150	52	n/a	4	6	19
Kenitra-Birami III	46	210	132	132	n/a	n/a	n/a
Kenitra-Ville	37	180	119	n/a	10	2	10
Meknes	35	75-400	99	31	14	45	60
Mohammedia	54	350-1,500	282	121	0	0	0
Ouarzazate	31	25	65	n/a	6	17	35
Safi-Kaouki	61	110	30	9	0	0	0
Settat II	16	160	52	3	3	5	15
Tanger-Mghogha	18	330-390	118	0	0	16	14

Source: Ministère du Commerce de l'Industrie et de l'Artisanat

d. Roads

Generally speaking, urban roads are well developed both in network and quality. However, maintenance of roads is not sufficient, especially in fringe areas. Car ownership has increased rapidly, as shown in Table 2.3-16. Most of these cars concentrate to Casablanca and Rabat-Sale, virtually, more than 50 % of cars are registered in these two areas. Recently, thus traffic congestion has become a serious problem there.

Table 2.3-16 Trend of Car Ownership

	1990	1991	1992	1993
No. of Registered Cars	971,991	1,022,100	1,105,822	1,185,755
Growth rate (%)	-	5.16	8.19	7.23

Source: Annuaire Statistique du Maroc 1995 / Direction de la Statistique

2) Trend of Migration

In 1994, there are 21 large cities which have a population of more than 100,000. The number of those cities has increased compared to 14 large cities in 1982. Increase of urban population is mainly caused by migrants from rural areas. As a matter of fact, 28 % of urban population was born in rural areas according to the population census in 1960. This proportion was 31 % in 1971, and 25 % in 1982, as shown in Table 2.3-17.

Table 2.3-17 Birthplace of Urban Population

Year	Birth in rural areas		Birth in urban areas		Total of urban population	
	No.	(%)	No.	(%)	No.	(%)
1960	943,491	28	2,446,122	72	3,389,613	100
1971	1,698,353	31	3,411,181	69	5,409,534	100
1982	2,165,215	25	6,565,184	75	8,730,399	100

Source: Migration et Urbanisation du Maroc / CERED, 1993

According to «Migration et Urbanisation du Maroc / Centre d'Etudes et de Recherches Démographiques (CERED), 1993», which is based on population census 1982, large cities are incontestably prime destination for immigrant from rural areas, although small and middle cities started to attract a number of rural population at the beginning. Consequently, in 1982, the 14 large cities had 58 % of migrants from rural areas. Casablanca itself attracted one-third (36.7 %) of migrants from rural area who were looking for refuge in those large cities, Rabat of tenth, Salé of seventeenth, and Kénitra and Mohammedia are the followings (3 % and 2 % respectively).

Moreover, old imperial cities in the interior of Morocco, namely Marrakech, Meknès and Fès, attracted less than one-fifth of those migrants in large cities. These interior cities obviously are less attractive than Atlantic coastal axis of Kénitra-Casablanca.

The rest of large cities of Atlantic coast, Tanger, Safi and Agadir, accommodated 12.4 % of those migrants who seek a refuge in large cities. Oujda, Tetouan and Khouribga situated far from Atlantic coastal axis attracted one-ninth of those migrants.

The attractive force of large cities, especially Atlantic coastal axis, is a indication of economic expansion. Casablanca stands out from other large cities, to which industry and principal

market concentrate both internal and international. Therefore, the economic influence covers the whole kingdom's territory so that there becomes as a biggest pole of migrants, in spite of the government effort to disperse the population to the regional poles.

3) Population in Major Cities

In 1994, there are 248 urban communes (municipalities), 60 of those communes form 14 urban communities, and the rest have no organization with any other communes. Urban community is an organization consisting of several adjacent urban communes, and implies a conurbation. And then, there are large cities of 21 (including both urban communities and urban communes) and middle cities of 26, as shown in Table 2.3-19, Table 2.3-20 and Fig 2.3-4. In the demographic study implemented by CERED, it is defined that large city has more than 100,000 inhabitants, and middle city has 50,000-100,000 inhabitants. Both numbers of large and middle cities have increased compared to the figures 14 and 13 respectively in 1982.

More than 8.5 million people live in large cities, whose figure is estimated at 32.7 % of the kingdom's national population, and at 63.6 % of the whole urban population. Urban community of Casablanca has extremely the largest population of 2.6 million, which is estimated at approximately 20 % of the whole urban population, or 10 % of the country's population. Following Casablanca, Fès (at 5.7 % of the whole urban population), Marrakech (4.7 %), Rabat (4.6 %), Tanger (3.7 %) and Salé (3.1 %) are sequenced in order of population size.

Table 2.3-18 shows a comparison of large cities between 1982 and 1994. The large cities of which population increase more than 100,000 are Casablanca, Fès, Marrakech, Tanger, Salé and Kénitra. Fès and Tanger have increased remarkably for those population size. Rabat and Khouribga are showing a tendency to stagnate.

Although Fès and Marrakech were defined as less attractive in the previous study of CERED, it seems that those old imperial cities in the interior have recovered the influence on those surroundings recently.

Table 2.3-18 Comparison of Population in Large Cities between 1982 and 1994

No.	Large Cities	Population		Increase 1982-1994	
		1982	1994	Total	Rate (%)
1	Casablanca (1)	2 139 024	2 624 712	485 688	22,7
2	Fes (3)	448 823	769 014	320 191	71,3
3	Marrakech (4)	439 728	633 880	194 152	44,2
4	Rabat (2)	526 124	623 457	97 333	18,5
5	Tanger (7)	266 346	497 147	230 801	86,7
6	Sale (6)	289 391	421 143	131 752	45,5
7	Meknes (5)	319 783	401 852	82 069	25,7
8	Oujda (8)	260 082	351 878	91 796	35,3
9	Kenitra (11)	188 194	292 627	104 433	55,5
10	Tetouan (9)	199 615	277 516	77 901	39,0
11	Safi (10)	197 309	262 276	64 967	32,9
12	Agadir (13)	110 479	185 535	75 056	67,9
13	Mohammedia (14)	105 120	170 063	64 943	61,8
14	Khounbga (12)	127 181	152 090	24 909	19,6
15	Beni Mellal	95 003	140 212	45 209	47,6
16	Laayoune	93 875	136 950	43 075	45,9
17	Temara	48 644	132 689	84 045	172,8
18	Taza	77 216	120 971	43 755	56,7
19	El Jadida	81 455	119 083	37 628	46,2
20	Nador	62 040	112 450	50 410	81,3
21	Ksar El Kebir	73 541	107 065	33 524	45,6
Total		6 148 973	8 532 610	2 383 637	38,8
Notes:	Number in parentheses presents a sequence in 1982, in order of population size.				
Source:	1) Migration et Urbanisation au Maroc / CERED, 1993				
	2) Population Legale du Maroc / Direction de la Statistique, 1994				

In terms of population density, Casablanca and Salé are the most populated among large cities, and Ksar El Kebir and Fès come at the second level, with estimations of 17,500, 16,200, 8,200 and 8,000 person per km² respectively. In the urban communities, it is obvious that the communes included medina are highly populated, as shown in Table 2.3-19.

In the middle cities, Sidi Slimane, Settat and Khemisset are much populated, with estimated at 9,900, 8,000 and 7,400 person per km² respectively, as shown in Table 2.3-20.

Average family size are 5.3 in both large and middle cities, while it is estimated at 5.9 at the national level. This implies that those households in urban centers tend to be nuclear families. The tendency of nuclear family is remarkably in the administrative capital city of Rabat, at which most of villas have been rebuilt for apartment houses.

Table 2.3-19 Population, Density and Household of Large Cities in 1994 (1)

Urban Community	Urban Commune	Area (sq km)	Population	Density (per sq km)	Household	
					No. of Household	Ave. Family Size
Agadir		64.00	185,535	2,899.0	38,564	4.8
	Agadir	41.00	155,244	3,786.4	32,353	4.8
	Anza	23.00	30,291	1,317.0	6,211	4.9
Marrakech		117.00	633,880	5,417.8	118,148	5.4
	Machouar Kasba	13.00	28,959	2,227.6	5,560	5.2
	Menara Gueliz	92.00	296,784	3,225.9	54,749	5.4
	Marrakech-Medina	9.00	189,367	21,040.8	37,341	5.1
	Sidi Youssef Ben Ali	3.00	118,770	39,590.0	20,498	5.8
Safi		64.00	262,276	4,098.1	50,913	5.2
	Asfi Biyada	27.00	65,917	2,441.4	11,665	5.7
	Asfi Boudheb	10.00	100,757	10,075.7	20,709	4.9
	Asfi Zaouia	27.00	95,602	3,540.8	18,539	5.2
Casablanca		149.83	2,624,712	17,517.9	481,396	5.5
	Ain Chock	18.00	165,907	9,217.1	27,887	5.9
	Hay Hassani	16.00	198,195	12,387.2	37,283	5.3
	Ain Sebaa	15.00	139,323	9,288.2	23,417	5.9
	Assoukhour Assawda	8.00	99,210	12,401.3	19,383	5.1
	Hay Mohammadi	4.00	174,635	43,658.8	31,390	5.6
	Sidi Moumen	10.00	107,825	10,782.5	17,815	6.1
	Ben Msick	2.80	195,753	69,911.8	32,879	6.0
	Moulay Rachid	8.50	167,909	19,754.0	28,845	5.8
	Salmia	5.50	31,889	5,798.0	5,939	5.4
	Sbata	2.00	97,776	48,888.0	16,669	5.9
	Sidi Othmane	4.20	183,195	43,617.9	29,881	6.1
	Anfa	12.00	89,527	7,460.6	17,105	5.2
	El Maarif	14.00	179,296	12,806.9	37,037	4.8
	Moulay Youssef	3.00	86,912	28,970.7	17,023	5.1
	Sidi Belyout	5.00	167,542	33,508.4	38,731	4.3
	Al Fida	1.87	109,565	58,590.9	20,423	5.4
	Al Idrissia	2.11	110,861	52,540.8	19,463	5.7
	Bouchentouf	2.22	140,370	63,229.7	27,335	5.1
	Mers Sultan	1.63	25,904	15,892.0	5,458	4.7
Sidi Bernoussi	14.00	153,118	10,937.0	27,433	5.6	
Kenitra		103.00	292,627	2,841.0	54,220	5.4
	Kenitra Maamoura	62.00	142,514	2,298.6	27,170	5.2
	Kenitra Saknia	41.00	150,113	3,661.3	27,050	5.5
Rabat		118.00	623,457	5,283.5	127,091	4.9
	Agdal Riyad	15.00	74,006	4,933.7	16,797	4.4
	El Youssoufia	73.00	195,208	2,674.1	37,312	5.2
	Rabat Hassan	7.00	146,488	20,926.9	33,590	4.4
	Touarga	1.00	8,080	8,080.0	1,078	7.5
	Yacoub El Mansour	22.00	199,675	9,076.1	38,314	5.2
Sale		26.00	421,143	16,197.8	80,215	5.3
	Sale Bab Lamrissa	9.00	114,120	12,680.0	23,001	5.0
	Sale Bettana	7.00	102,142	14,591.7	18,915	5.4
	Sale Tabriquet	10.00	204,881	20,488.1	38,299	5.3
Temara		35.00	132,689	3,791.1	24,510	5.4
	Harhoura	12.00	6,386	532.2	1,387	4.6
	Temara	23.00	126,303	5,491.4	23,123	5.5

Table 2.3-19 Population, Density and Household of Large Cities in 1994 (2)

Urban Community	Area (sq km)	Population	Density (per sq km)	Household	
				No. of Household	Ave. Family Size
Tanger	114.00	497,147	4,360.9	96,694	5.1
Bni Makada	19.00	144,154	7,587.1	25,527	5.6
Charf	37.00	214,459	5,796.2	40,446	5.3
Tanger	58.00	138,534	2,388.5	30,721	4.5
Tetouan	78.00	277,516	3,557.9	53,405	5.2
Tetouan Al Azhar	36.00	137,041	3,806.7	25,714	5.3
Tetouan Sidi Al Mandri	42.00	140,475	3,344.6	27,691	5.1
Fes	96.00	769,014	8,010.6	142,672	5.4
Agdal	21.00	129,914	6,186.4	25,779	5.0
Machouar Fes El Jadid	2.00	34,796	17,398.0	7,460	4.7
Saiss	19.00	78,047	4,107.7	14,554	5.4
Zouagha	44.00	262,429	5,964.3	46,042	5.7
Fes Medina	10.00	263,828	26,382.8	48,837	5.4
Taza	30.00	120,971	4,032.4	21,611	5.6
Taza Al Oulia	7.00	28,267	4,038.1	5,255	5.4
Taza El Jadida	23.00	92,704	4,030.6	16,356	5.7
Oujda	66.00	351,878	5,331.5	64,544	5.5
Ouad Ennachef Sidi Maafa	22.00	112,840	5,129.1	19,790	5.7
Oujda Sidi Ziane	21.00	146,142	6,959.1	28,217	5.2
Sidi Driss El Qadi	23.00	92,896	4,039.0	16,537	5.6
Meknes	70.10	401,852	5,732.6	78,248	5.1
Hamrya	35.00	142,786	4,079.6	27,537	5.2
Al Ismailia	15.00	117,989	7,865.9	23,337	5.1
Al Machouar Stinia	3.00	44,932	14,977.3	9,261	4.9
Maknassat Azzaytoun	17.10	96,145	5,622.5	18,113	5.3
Total of Urban Communities	1,130.93	7,594,697	6,715.4	1,432,231	5.3
Laayoune	40.00	136,950	3,423.8	26,033	5.3
Beni Mellal	61.80	140,212	2,268.8	27,235	5.1
Mohammedia	34.00	170,063	5,001.9	31,699	5.4
El Jadida	30.00	119,083	3,969.4	24,192	4.9
Khouribga	22.00	152,090	6,913.2	27,296	5.6
Ksar El Kebir	13.00	107,065	8,235.8	20,431	5.2
Nador	21.44	112,450	5,244.9	20,649	5.4
Grand Total of Large Cities	1,353.17	8,532,610	6,305.6	1,609,766	5.3

Source: Ministry of Interior

Table 2.3-20 Population, Density and Household of Middle Cities in 1994

Urban Commune (Municipality)	Area (sq km)	Population	Density (per sq km)	Household	
				No. of Household	Ave. Family Size
South					
Ait Melloul	30.00	82,825	2,760.8	16,464	5.0
Dcheira El Jhadia	12.00	72,479	6,039.9	14,340	5.1
Inezgane	14.00	92,534	6,609.6	17,991	5.1
Guelmim	28.00	72,563	2,591.5	13,213	5.5
Taroudant	40.00	57,136	1,428.4	11,254	5.1
Tensift					
Kelaat Sraghna	8.09	51,404	6,354.0	9,237	5.6
Essaouira	93.00	56,074	602.9	11,988	4.7
Youssoufia	32.00	60,451	1,889.1	10,792	5.6
Center					
Fquih Ben Salah	17.65	74,697	4,232.1	13,691	5.5
Oued Zem	13.00	73,953	5,688.7	13,762	5.4
Berrechid	16.00	54,215	3,388.4	10,061	5.4
Settat	12.00	96,217	8,018.1	18,555	5.2
North-West					
Sidi Slimane	7.00	69,645	9,949.3	12,798	5.4
Khemisset	12.00	88,839	7,403.3	17,391	5.1
Hssaine	37.00	74,930	2,025.1	13,610	5.5
Sale Laayayda	24.00	83,777	3,490.7	14,368	5.8
Ouezzane	25.00	52,168	2,086.7	10,421	5.0
Sidi Kacem	21.00	67,622	3,220.1	12,966	5.2
Larache	55.00	90,400	1,643.6	18,091	5.0
Center North					
Al Hoceima	16.00	55,216	3,451.0	10,225	5.4
Sefrou	9.00	54,163	6,018.1	11,128	4.9
Oriental					
Berkane	14.00	77,026	5,501.9	14,360	5.4
Taourirt	13.00	57,956	4,458.2	9,527	6.1
Jerada	24.00	59,367	2,473.6	9,719	6.1
Center North					
Errachidia	21.00	62,542	2,978.2	10,454	6.0
Khenifra	9.00	60,835	6,759.4	12,615	4.8
Total	602.74	1,799,034	2,981.8	339,021	5.3

Source: Ministry of Interior

Fig 2.3-4 Large Cities in 1994

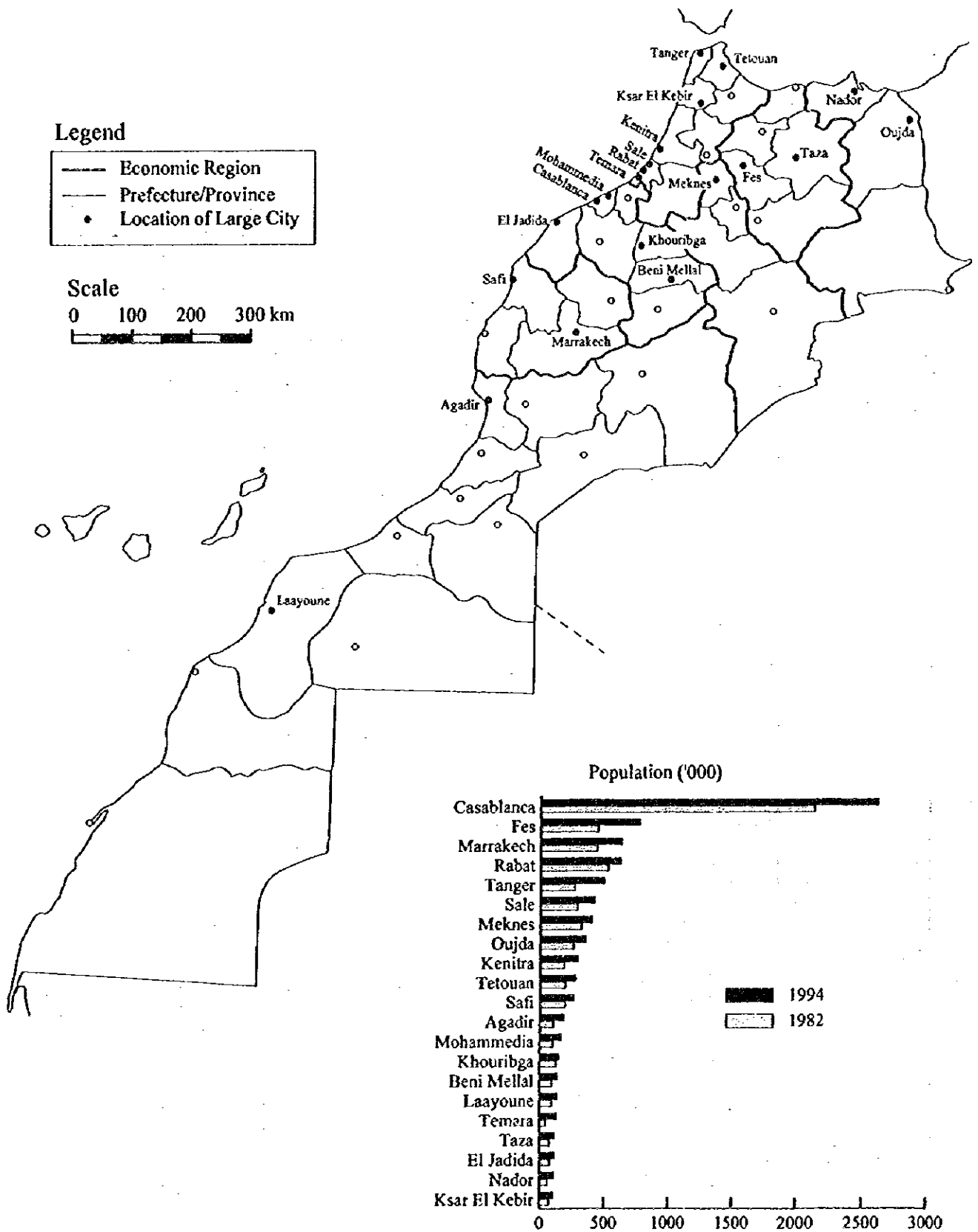


Table A Population, Density & Household of 248 Urban Communes in 1994

Region	Prefecture/ Province	Urban Communes (Municipalite)	Area (sq km)	Population	Density (per sq.km)	Household	
						No. of Household	Av. Family Size
South	Agadir Ida Ou Tanane	Agadir	41.00	155,244	3,786.4	32,353	4.8
		Anza	23.00	30,291	1,317.0	6,211	4.9
		Bensergao	22.00	39,289	1,785.9	8,254	4.8
		Tikiouine	17.00	26,796	1,576.2	4,976	5.4
	Chtouka Ait Baha	Ait Baha	6.00	3,638	606.3	795	4.6
		Biougra	20.00	13,885	694.3	2,755	5.0
	Inezgane Ait Melloul	Ait Melloul	30.00	82,825	2,760.8	16,464	5.0
		Dcheira El Jhadia	12.00	72,479	6,039.9	14,340	5.1
		Inezgane	14.00	92,534	6,609.6	17,991	5.1
	Assa-Zag	Assa	21.00	8,323	396.3	1,606	5.2
		Zag	6,155.00	2,759	0.4	623	4.4
	Boujdour	Boujdour	45.00	15,167	337.0	3,311	4.6
	Es-Semara	Es-Semara	15.00	28,750	1,916.7	4,197	6.9
	Guelmim	Bouizakarne	27.52	8,638	313.9	1,850	4.7
		Guelmim	28.00	72,563	2,591.5	13,213	5.5
	Laayoune	El Marsa	18.00	4,334	240.8	813	5.3
		Laayoune	40.00	136,950	3,423.8	26,033	5.3
		Tarfaya	17.00	4,506	265.1	1,003	4.5
	Ouarzazate	Agdz	77.00	5,870	76.2	838	7.0
		Boumalne Dades	28.00	9,908	353.9	1,522	6.5
		Kalaat M'gouna	17.00	10,524	619.1	1,672	6.3
		Ouarzazate	47.30	39,203	828.8	6,912	5.7
		Taznakht	64.00	3,813	59.6	647	5.9
		Tinghir	41.00	30,471	743.2	4,380	7.0
		Zagora	90.00	26,174	290.8	3,452	7.6
	Oued-Ed-Dahab	Dakhla	60.00	29,831	497.2	5,855	5.1
		Lagouira	300.00	509	1.7	113	4.5
	Tan-Tan	Tan-Tan	25.00	45,821	1,832.8	9,259	4.9
		El Ouatia	20.00	7,846	392.3	1,015	7.7
	Taroudannt	Ait Jaaza	8.00	4,881	610.1	885	5.5
		El Guerdane	13.00	6,525	501.9	1,080	6.0
		Igherm	3.50	4,558	1,302.3	882	5.2
Oulad Berhil		8.00	9,211	1,151.4	1,531	6.0	
Oulad Teima		21.00	47,126	2,244.1	8,845	5.3	
Taliouine		6.00	4,963	827.2	839	5.9	
Taroudannt		40.00	57,136	1,428.4	11,254	5.1	
Tata	Akka	40.00	6,519	163.0	965	6.8	
	Fam El Hisn	40.00	7,040	176.0	1,017	6.9	
	Foum Zguid	40.00	9,903	247.6	1,437	6.9	
	Tata	50.00	12,549	251.0	2,076	6.0	
Tiznit	Lakhsas	10.00	3,329	332.9	630	5.3	
	Sidi Ifni	10.00	19,722	1,972.2	3,772	5.2	
	Tafraout	50.00	3,949	79.0	1,007	3.9	
	Tiznit	12.00	43,001	3,583.4	8,898	4.8	
Tensift	El Kelaa des Sraghna	Ben Guerir	25.00	47,080	1,883.2	8,319	5.7
		Kclaat Sraghna	8.09	51,404	6,354.0	9,237	5.6
		Laattaouia	51.18	11,219	219.2	1,888	5.9
		Sidi Rahhal	44.73	6,292	140.7	1,159	5.4
		Tamallalt	71.33	8,701	122.0	1,392	6.3
	Essaouira	Ait Daoud	19.00	2,118	111.5	417	5.1
	El Hanchane	14.00	3,898	278.4	762	5.1	

Table A Population, Density & Household of 248 Urban Communes in 1994 (Continued)

Region	Prefecture/ Province	Urban Communes (Municipalite)	Area (sq.km)	Population	Density (per sq.km)	Household		
						No. of Household	Av. Family Size	
Tensift	Essaouira	Essaouira	93.00	56,074	602.9	11,988	4.7	
		Talmest	13.00	3,406	262.0	669	5.1	
		Tamanar	36.00	8,620	239.4	1,521	5.7	
	Marrakech- Menara	Machouar Kasba *	13.00	28,959	2,227.6	5,560	5.2	
		Menara Gueliz *	92.00	296,784	3,225.9	54,749	5.4	
	M.-Medina	Marrakech-Medina	9.00	189,367	21,040.8	37,341	5.1	
	Sidi Youssef Ben Ali	Annakhil	67.00	38,626	576.5	6,918	5.6	
		Sidi Youssef Ben Ali	3.00	118,770	39,590.0	20,498	5.8	
	Chichaoua	Chichaoua	40.00	9,738	243.5	1,743	5.6	
		Imintanoute	15.00	12,592	839.5	2,462	5.1	
	Al Haouz	Ait Ourir	10.00	12,162	1,216.2	2,165	5.6	
	Safi	Asfi Biyada *	27.00	65,917	2,441.4	11,665	5.7	
		Asfi Boudheb *	10.00	100,757	10,075.7	20,709	4.9	
		Asfi Zaouia *	27.00	95,602	3,540.8	18,539	5.2	
		Echenmaia	19.00	18,010	947.9	3,099	5.8	
		Jamaat Shaim	106.00	13,548	127.8	2,524	5.4	
		Sebt Gzoula	38.00	10,363	272.7	1,896	5.5	
		Youssoufia	32.00	60,451	1,889.1	10,792	5.6	
	Center	Azilal	Azilal	25.00	18,080	723.2	3,622	5.0
			Demnate	35.00	17,782	508.1	3,393	5.2
Beni Mellal		Beni Mellal *	61.80	140,212	2,268.8	27,235	5.1	
		El Ksiba	11.00	15,355	1,395.9	3,538	4.3	
		Fquih Ben Salah	17.65	74,697	4,232.1	13,691	5.5	
		Kasba Tadla	13.21	36,570	2,768.4	6,854	5.3	
		Oulad Ayad	7.08	18,958	2,677.7	3,064	6.2	
		Souk Sebt Oulad Nemna	15.00	40,339	2,689.3	6,751	6.0	
		Zaouiat Cheikh	9.00	19,906	2,211.8	4,410	4.5	
Ben Slimane		Ben Slimane	11.50	36,977	3,215.4	7,011	5.3	
		Bouznika	113.00	21,327	188.7	3,716	5.7	
Ain Chock- Hay Hassani		Ain Chock	18.00	165,907	9,217.1	27,887	5.9	
		Hay Hassani *	16.00	198,195	12,387.2	37,283	5.3	
		Lissasfa	9.00	36,939	4,104.3	7,110	5.2	
		Nouaceur	48.00	9,989	208.1	1,659	6.0	
		Sidi Maarouf	17.00	22,211	1,306.5	3,847	5.8	
Ain Sebaa- Hay Mohammadi		Ain Sebaa *	15.00	139,323	9,288.2	23,417	5.9	
		Assoukhour Assawda	8.00	99,210	12,401.3	19,383	5.1	
		Hay Mohammadi	4.00	174,635	43,658.8	31,390	5.6	
		Sidi Moumen	10.00	107,825	10,782.5	17,815	6.1	
Ben Msick- Sidi Othmane		Ben Msick	2.80	195,753	69,911.8	32,879	6.0	
		Mediouna	2.26	11,669	5,163.3	2,040	5.7	
		Moulay Rachid	8.50	167,909	19,754.0	28,845	5.8	
		Salmia	5.50	31,889	5,798.0	5,939	5.4	
		Sbata	2.00	97,776	48,888.0	16,669	5.9	
		Sidi Othmane	4.20	183,195	43,617.9	29,881	6.1	
Casablanca- Anfa		Anfa	12.00	89,527	7,460.6	17,105	5.2	
		El Maarif	14.00	179,296	12,806.9	37,037	4.8	
		Moulay Youssef	3.00	86,912	28,970.7	17,023	5.1	
		Sidi Belyout *	5.00	167,542	33,508.4	38,731	4.3	
Al Fida- Derb Sultan		Al Fida	1.87	109,565	58,590.9	20,423	5.4	
		Al Idrissia	2.11	110,861	52,540.8	19,463	5.7	

Table A Population, Density & Household of 248 Urban Communes in 1994 (Continued)

Region	Prefecture/ Province	Urban Communes (Municipalite)	Area (sq.km)	Population	Density (per sq km)	Household		
						No. of Household	Av. Family Size	
Center	Al Fida-Derb Sultan	Bouchentouf	2.22	140,370	63,229.7	27,335	5.1	
		Mers Sultan	1.63	25,904	15,892.0	5,458	4.7	
	Sidi Bernoussi- Zenata	Ahl Loughlam	12.00	22,926	1,910.5	3,735	6.1	
		Ain Harrouda	27.00	27,741	1,027.4	4,839	5.7	
		Sidi Bernoussi	14.00	153,118	10,937.0	27,433	5.6	
		Tit Mellil	6.00	5,796	966.0	1,028	5.6	
		Mohammedia	Mohammedia *	34.00	170,063	5,001.9	31,699	5.4
	Mechouar Casa.	Mechouar Casablanca	0.37	3,956	10,691.9	808	4.9	
	El Jadida	Azemmour	10.00	32,739	3,273.9	6,978	4.7	
		El Jadida *	30.00	119,083	3,969.4	24,192	4.9	
		Lbir Jdid	8.00	10,540	1,317.5	1,942	5.4	
		Sidi Bennour	10.00	34,225	3,422.5	6,423	5.3	
		Zenamra	8.00	10,310	1,288.8	2,028	5.1	
		Khouribga	Bejaad	6.00	33,321	5,553.5	6,640	5.0
	Boujniba		4.00	14,319	3,579.8	2,560	5.6	
	Hattane		3.00	11,263	3,754.3	1,981	5.7	
	Khouribga *		22.00	152,090	6,913.2	27,296	5.6	
	Oued Zem		13.00	73,953	5,688.7	13,762	5.4	
	Settat		Ben Ahmed	5.00	19,135	3,827.0	3,754	5.1
		Berrechid	16.00	54,215	3,388.4	10,061	5.4	
		El Borouj	10.00	13,798	1,379.8	2,192	6.3	
		El Gara	3.00	15,822	5,274.0	3,080	5.1	
		Loulad	10.00	4,292	429.2	715	6.0	
		Oulad Abbou	10.00	10,019	1,001.9	1,701	5.9	
		Oulad M'rah	10.00	8,950	895.0	1,606	5.6	
		Settat *	12.00	96,217	8,018.1	18,555	5.2	
		North- West	Chefchaouen	Chefchaouen	4.00	31,410	7,852.5	6,189
	Kenitra		Kenitra Maamoura *	62.00	142,514	2,298.6	27,170	5.2
Kenitra Saknia *			41.00	150,113	3,661.3	27,050	5.5	
Mehdia			5.00	5,906	1,181.2	1,160	5.1	
Sidi Slimane			7.00	69,645	9,949.3	12,798	5.4	
Sidi Yahya El Gharb			3.00	29,965	9,988.3	5,048	5.9	
Souk El Arbaa			8.00	37,216	4,652.0	6,689	5.6	
Khemisset			Khemisset	12.00	88,839	7,403.3	17,391	5.1
	Rommani		10.00	11,433	1,143.3	2,248	5.1	
	Tiflet		10.00	49,918	4,991.8	9,848	5.1	
Rabat	Agdal Riyad *		15.00	74,006	4,933.7	16,797	4.4	
	El Youssoufia		73.00	195,208	2,674.1	37,312	5.2	
	Rabat Hassan		7.00	146,488	20,926.9	33,590	4.4	
	Touarga		1.00	8,080	8,080.0	1,078	7.5	
	Yacoub El Mansour *		22.00	199,675	9,076.1	38,314	5.2	
Sale	Hssaine		37.00	74,930	2,025.1	13,610	5.5	
	Sale Bab Lamrissa		9.00	114,120	12,680.0	23,001	5.0	
	Sale Bettana		7.00	102,142	14,591.7	18,915	5.4	
	Sale Laayayda		24.00	83,777	3,490.7	14,368	5.8	
	Sale Tabriquet		10.00	204,881	20,488.1	38,299	5.3	
	Skhirate-Temara		Ain El Aouda	6.00	13,708	2,284.7	2,682	5.1
Harhoura			12.00	6,386	532.2	1,387	4.6	
Skhirate			41.00	29,599	721.9	5,217	5.7	
Temara			23.00	126,303	5,491.4	23,123	5.5	

Table A Population, Density & Household of 248 Urban Communes in 1994 (Continued)

Region	Prefecture/ Province	Urban Communes (Municipalite)	Area (sq.km)	Population	Density (per sq.km)	Household		
						No. of Household	Av. Family Size	
North- West	Sidi Kacem	Dar Gueddari	1.43	5,403	3,778.3	858	6.3	
		Had Kourt	4.00	4,296	1,074.0	742	5.8	
		Jorf El Melha	2.00	10,187	5,093.5	1,637	6.2	
		Mechra Bel Ksiri	8.00	23,876	2,984.5	4,230	5.6	
		Ouezzane	25.00	52,168	2,086.7	10,421	5.0	
		Sidi Kacem	21.00	67,622	3,220.1	12,966	5.2	
	Tanger	Assilah	32.00	24,588	768.4	4,977	4.9	
		Bni Makada	19.00	144,154	7,587.1	25,527	5.6	
		Charf	37.00	214,459	5,796.2	40,446	5.3	
		Tanger *	58.00	138,534	2,388.5	30,721	4.5	
	Tetouan	Fnidq	28.50	34,486	1,210.0	6,585	5.2	
		Martil	34.00	23,143	680.7	4,801	4.8	
		M'diq	40.00	21,093	527.3	4,120	5.1	
		Ouad Laou	65.00	7,575	116.5	1,317	5.8	
		Tetouan Al Azhar	36.00	137,041	3,806.7	25,714	5.3	
		Tetouan Sidi Al Mandri	42.00	140,475	3,344.6	27,691	5.1	
	Larache	Ksar El Kebir	13.00	107,065	8,235.8	20,431	5.2	
		Larache	55.00	90,400	1,643.6	18,091	5.0	
	Center North	Al Hoceima	Al Hoceima	16.00	55,216	3,451.0	10,225	5.4
			Bni Bouayach	30.00	13,128	437.6	2,255	5.8
			Imzouren	30.00	25,547	851.6	4,437	5.8
Targuist			7.00	9,593	1,370.4	1,736	5.5	
Boulemane		Boulemane	10.00	6,067	606.7	1,260	4.8	
		Missour	18.00	12,777	709.8	2,470	5.2	
		Outat El Haj	10.00	9,987	998.7	1,816	5.5	
Fes El Jadid- Dar Dbibagh		Agdal	21.00	129,914	6,186.4	25,779	5.0	
		Machouar Fes El Jadid	2.00	34,796	17,398.0	7,460	4.7	
		Saiss	19.00	78,047	4,107.7	14,554	5.4	
Zouagha- Moulay Yacoub		Moulay Yacoub	2.00	2,726	1,363.0	615	4.4	
		Zouagha	44.00	262,429	5,964.3	46,042	5.7	
Fes Medina		Fes Medina	10.00	263,828	26,382.8	48,837	5.4	
Sefrou		Bhalil	8.00	10,678	1,334.8	2,409	4.4	
		El Menzel	9.00	10,785	1,198.3	2,053	5.3	
		Imouzzar Kandar	5.00	11,555	2,311.0	2,447	4.7	
		Ribate El Kheir	10.00	8,373	837.3	1,618	5.2	
		Sefrou	9.00	54,163	6,018.1	11,128	4.9	
Taounate		Ghafsai	12.00	4,255	354.6	838	5.1	
		Karia Ba Mohamed	42.00	13,271	316.0	2,355	5.6	
		Taounate	42.00	24,378	580.4	4,614	5.3	
		Thar Essouk	13.00	3,311	254.7	583	5.7	
		Tissa	25.00	7,059	282.4	1,232	5.7	
Taza		Aknoul	4.00	3,325	831.3	654	5.1	
		Guercif	17.00	41,997	2,470.4	7,345	5.7	
		Ouad Anlil	10.00	6,524	652.4	1,061	6.1	
		Tahla	8.00	20,147	2,518.4	3,456	5.8	
		Taza Al Oulia	7.00	28,267	4,038.1	5,255	5.4	
		Taza El Jadida *	23.00	92,704	4,030.6	16,356	5.7	
Oriental	Figuig	Bouarfa	7.00	19,631	2,804.4	3,606	5.4	
		Figuig	35.00	14,245	407.0	2,722	5.2	
	Nador	Al Aaroui	25.00	27,049	1,082.0	4,561	5.9	
		Bni Ansar	48.26	23,897	495.2	4,410	5.4	

Table A Population, Density & Household of 248 Urban Communes in 1994 (Continued)

Region	Prefecture/ Province	Urban Communes (Municipalite)	Area (sq. km)	Population	Density (per sq. km)	Household		
						No. of Household	Av. Family Size	
Oriental	Nador	Nador	21.44	112,450	5,244.9	20,649	5.4	
		Zaio	28.26	25,920	917.2	4,759	5.4	
		Zeghanghane	12.30	19,012	1,545.7	3,616	5.3	
	Oujda Angad	Bni Drar	1.00	6,663	6,663.0	1,131	5.9	
		Neima	1.50	1,641	1,094.0	289	5.7	
		Ouad Ennachef Sidi Maafa *	22.00	112,840	5,129.1	19,790	5.7	
		Oujda Sidi Ziane *	21.00	146,142	6,959.1	28,217	5.2	
		Sidi Driss El Qadi	23.00	92,896	4,039.0	16,537	5.6	
		Sidi Yahya	1.50	5,400	3,500.0	953	5.7	
		Berkane-Taourirt	Ahfir	5.00	20,508	4,101.6	3,686	5.6
	Berkane-Taourirt	Ain Erreggada	1.50	3,228	2,152.0	586	5.5	
		Aklim	3.00	7,992	2,664.0	1,351	5.9	
		Berkane	14.00	77,026	5,501.9	14,360	5.4	
		El Aioun Sidi Mellouk	7.00	30,789	4,398.4	5,017	6.1	
		Saidia	4.00	2,563	640.8	584	4.4	
		Sidi Slimane Echcherraa	5.50	16,518	3,003.3	2,866	5.8	
		Taourirt	13.00	57,956	4,458.2	9,527	6.1	
		Jrada	Ain Bni Mathar	4.50	10,532	2,340.4	1,768	6.0
	Jrada	Debdou	1.00	4,477	4,477.0	800	5.6	
		Jrada	24.00	59,367	2,473.6	9,719	6.1	
		Touissit	7.00	4,638	662.6	851	5.5	
		Center South	Errachidia	Arfoud	15.00	18,563	1,237.5	2,813
	Errachidia	Boudnib	4.00	8,294	2,073.5	1,411	5.9	
Errachidia		21.00	62,542	2,978.2	10,454	6.0		
Errich		4.00	13,952	3,488.0	2,577	5.4		
Goulmima		9.00	14,026	1,558.4	2,392	5.9		
Jorf		6.00	12,143	2,023.8	1,864	6.5		
Moulay Ali Cherif		7.00	18,450	2,635.7	2,799	6.6		
Tinejdad		14.00	5,755	411.1	908	6.3		
Ifrane		Azrou	8.00	40,808	5,101.0	8,613	4.7	
Ifrane	Ifrane	36.00	11,209	311.4	2,171	5.2		
	Khenifra	Khenifra	9.00	60,835	6,759.4	12,615	4.8	
	Midelt	8.10	38,986	4,813.1	7,595	5.1		
Khenifra	M'ritt	4.40	25,942	5,895.9	5,423	4.8		
	Meknes	Boufakrane	15.00	4,223	281.5	816	5.0	
	El Menzeh	Hamrya	35.00	142,786	4,079.6	27,537	5.2	
Moulay Idriss Zerhoun		2.30	12,521	5,443.9	2,659	4.7		
Ouislane		21.40	28,694	1,340.8	5,117	5.6		
Al Ismailia		Al Ismailia	15.00	117,989	7,865.9	23,337	5.1	
Al Ismailia	Al Machouar Stinia	3.00	44,932	14,977.3	9,261	4.9		
	Maknassat Azzaytoun	17.10	96,145	5,622.5	18,113	5.3		
	Toulal	26.00	12,668	487.2	2,373	5.3		
El Hajeb	Agourai	12.00	10,033	836.1	1,927	5.2		
	Ain Taoujdate	18.00	16,070	892.8	2,981	5.4		
	El Hajeb	17.00	23,369	1,374.6	4,731	4.9		
	Sabaa Aiyoun	20.00	15,575	778.8	2,749	5.7		

Notes: * Selected 21 communes.

Source: Ministry of Interior

Table B Selected 5 Urban Communities

Region	Urban Community	Population	% of 14 Urban Communities
North-West	Rabat	623,457	8.21
Oriental	Oujda	351,878	4.63
Center	Casablanca	2,624,712	34.56
Tensift	Marrakech	633,880	8.35
	Safi	262,276	3.45
Total		4,496,203	59.20
Total of 14 Urban Communities		7,594,697	100.00

Table C Selected 21 Urban Communes

Region	Prefecture/Province	Commune (Municipality)	Population	% of 248 Urban Communes
Tensift	Marrakech-Menara	Machour Kasba *	28,959	0.23
		Menara Gueliz *	296,784	2.31
	Safi	Asfi Biyada *	65,917	0.51
		Asfi Boudheb *	100,757	0.78
		Asfi Zaouia *	95,602	0.74
Center	Beni Mellal	Beni Mellal	140,212	1.09
	Ain Chock-Hay Hassani	Hay Hassani *	198,195	1.54
	Ain Sebaa Hay Mohammadi	Ain Sebaa *	139,323	1.08
	Casablanca Anfa	Sidi Belyout *	167,542	1.30
	Mohammedia	Mohammedia	170,063	1.32
	El Jadida	El Jadida	119,083	0.93
	Khouribga	Khouribga	152,090	1.18
North-West	Kenitra	Kenitra Maamoura	142,514	1.11
		Kenitra Saknia	150,113	1.17
	Rabat	Agdal Riyad *	74,006	0.58
		Yacoub El Mansour *	199,675	1.55
	Tanger	Tanger	138,534	1.08
Center North	Taza	Taza El Jadida	92,704	0.72
Oriental	Oujda Angad	Ouad Ennachef Sidi Maafa *	112,840	0.88
		Oujda Sidi Ziane *	146,142	1.14
Total			2,827,272	21.99
Total of 248 Urban Communes			12,857,871	100.00

Notes: * Commune also belongs to one of selected 5 urban communities.

Fig A Location of Selected Urban Communities and Communes

