

-PN-ABT-187  
FSN-91289

PRE/H Library Copy

General Background Information on Algeria's:  
Economy, Development Plans, and Housing and  
Water Supply and Sewerage Sectors

by

Gail M. Spence,  
PRE/Housing

November 25, 1988

## Table of Content

	Page Number
I. The Algerian Economy	2
A. Exports and Imports	3
B. The Private Sector	4
C. Development Planning	5
D. Development Planning Limitations	6
II. The Current Budget	7
A. Technical Assistance	8
B. The Credit Budget	8
C. Revenues	8
D. Total Expenditures and the Treasury Deficit	8
III. External Payments, the Debt, and International Borrowing	9
A. External Payments and the Debt	9
B. Diversification of Borrowing	10
C. Algeria's Creditworthiness	11
IV. Foreign Assistance	11
V. Population Information	12
VI. The Housing Sector	12
A. Algeria's Development Plans and the Housing Sector	13
B. Algeria's Housing Policy	14
VII. The Water and Sewage Sector	15
A. Recent Sector Development and Sector Organization	16
B. Project Implementation and Project Financing	18
Bibliography	20
Appendix 1 - The Government Operating and Investment Budget for 1987 and 1988	

## I. The Algerian Economy

The government headed by President Chadli Benjedid, has adopted an increasingly flexible economic policy. The policy's aim is to escape the rigidity and inefficiency which was prevalent during the years of his predecessor, President Houari Boumediene. President Boumediene died in 1978, and Chadli Benjedid's regime took power. At the time of this transition, the economy was burdened with a top heavy structure, an unproductive agricultural base, and a heavily bureaucratized government that slowed down both industrial growth and commercial distribution. Instead of establishing a fixed centralized structure that established policies and concentrated on single-minded implementation, President Bendjedid favored consolidation, the decentralization of the government structure and a pragmatic doctrine.

In the last eight years, there has been a growing acceptance that private enterprise development is necessary to assist the public sector in achieving its developmental goals.

Algeria's development objective is the achievement of economic diversification, through limiting its dependence on the hydrocarbon sector. Other major objectives included balance of payments adjustments through encouraging exports and limiting imports, the development of the agricultural sector, and the establishment of a solid industrial sector with particular emphasis on the development of the petrochemical industries.

The world prices of hydrocarbon products are subjected to wide fluctuations in market conditions. In the last 10 years, oil reserves, as well as OPEC prices, have been dropping. Although Algeria has successfully diversified its hydrocarbons industry into gas production, thereby maintaining its export revenues (98 per cent of which in 1985 came from oil and gas), hydrocarbon revenues are expected to fall in the second half of the 1980s. Keeping this in mind, the government aims to build a strong, viable and diversified economy to cope with the demands of Algeria's rapidly growing population. Central to President Bendjedid's strategy is the development of manufacturing industries and agriculture to increase national production and cut costly imports of food and consumer goods. Some observers believe that Algeria is closer to being a new industrialized country (NIC) than any other African country except South Africa.

Until recently, economic growth has been rapid, led by the steady growth of the hydrocarbons sector. Growth was particularly high during the periods of sharp oil price rises, while GDP growing in real terms by over 8 per cent a year in 1978-79 and by 16.7 per cent in 1980. Since then, however, there has been a sharp deceleration, with real growth down to 1.6 percent in 1981 and negative in 1982 at -5.3 per cent, according to the IMF. This trend continues during the period of 1983-85, although no constant price national accounts data is available for this period.

Below, there are two reasons given to explain the current economic environment and what is being done today to improve the economy.

-- In face of the pessimistic view of oil prices, the government is now believed to be committed to austerity policies well into the next decade and it is expected to sacrifice high cost new projects for financial prudence. However, the threat of internal unrest may limit the Government of Algeria (GOA) austerity plan. For example, with money tight and world prices soaring in late 1988, the GOA has reduced the purchases of dairy products. In a nation of big families, dairy product shortages may provoke popular protest which may make untenable the fiscal austerity needed to improve Algeria's balance of payment

-- Administrative blockages have delayed decisions on project spending.

#### A. Exports and Imports

Algeria has virtually one export, hydrocarbons, which in 1987 accounted for 97% of total goods exported. The country managed to avoid the worst of the 1986 oil price fall because it had diversified exports in the early 1980's from crude oil to include, for example, condensates, and refined products. It is estimated that for 1988, hydrocarbons will account for \$8.9 billion of the total exports of \$9.7 billion. (This assumes an average world price of \$15.50 per barrel.)

The GOA has progressively reduced imports to respond to the drop in income since 1986. The GOA cut imports from \$11.4 billion in 1985 to a projected \$8.4 billion in 1988. Continuing weak oil prices and a heavy schedule of debt repayments have pushed the debt service ratio above 50 percent since 1986, further compressing imports. Increasing world food prices threaten to hike the import bill for 1989 -- food imports in 1988 will consume 25% of the import budget.

## B. The Private Sector

Many of Algeria's development plans in its First Five Year Plan (1980-84) and Second Five Year Plan (1985-89) with total budgets of Algerian Dinars (AD) 400 billion and 500 billion AD respectively, were adversely affected by the drop in world oil and natural gas prices, particularly during 1986. Consequently, many of the targeted industrial projects were not achieved. In 1986, the Algerian government was unable to spend more than 80 per cent of the Ministry of Heavy Industries' budget due to the shortages in funds.

In face of declining government oil and gas revenues, the GOA has encouraged the private sector to play a growing role in economic development. The GOA is also interested in attracting foreign investment which it has traditionally discouraged. Foreign direct investment has been kept to a minimal because since independence Algeria has preferred to go it alone. The oil price fall sparked a change in the GOA thinking and one result was two key pieces of legislation, the Joint Venture Law of 1988 and the Hydrocarbon Exploration Law of 1986. In addition, the GOA will be signing an agreement with the U.S. Overseas Private Investment Corporation (OPIC) which could take place in the early part of 1989.

An open door economic policy was adopted with the aim of promoting private sector investment, particularly in industrial projects. Regulations governing import licenses, COD payments of foreign purchases, currency controls, and similar matters were liberalized in order to provide greater latitude for the private sector. In 1983, additional measures were taken, including an increase in the permissible level of private investment in an enterprise from 50,000 Algerian Dinars (\$1= AD 5.10) to AD30 million, permission for the duty free import of private equipment under AD100,000, and approval of 360 new businesses involving AD1 billion and 6,000 jobs. (Algeria has some 360,000 private businesses but they average only a few employees each).

The GOA in 1988 has initiated substantive reforms to encourage the private sector. One of its goals has been to attract expatriate capital. However, expatriate investment may be limited to a few million dollars because as the dinar earning remains unattractive -- potential private investors fear further devaluation of the dinar.

Nevertheless, the economy is expected to benefit significantly from the dynamism and financial expertise of private investors. This it hopes to achieve through a series of financial regulations which the GOA is introducing which are supposed to facilitate private investments. Through added private investment the Algerian government hopes to be able to finance its budget deficits.

Parallel to its efforts to explore new sources for financing developing schemes the Algerian government is seeking to secure stable revenues from its hydrocarbon sector. It has to deal, however, with growing pressures from main importers of Algerian natural gas and oil. Main gas importers are demanding a reduction in prices in line with the drop in world oil prices.

Finally, although the government is taking steps to encourage private enterprises, it is expected that the state sector will continue to dominate the economy.

### C. Development Planning

Under the scheme of "industrializing industry", Algeria has sought to build up heavy industry in the petrochemical sector as the "motor" of economic development. This strategy led to the government to borrow heavily to finance its ambitious industrialization plan; and the mid late and early 1970s were described as "boom borrowing" years for the petroleum sector.

During the period of 1967 to 1980, development planning consisted of increasing investment in heavy industry, hydrocarbon, steel and chemical industries. In the last Four Year Plan (1974-77), the two basic aims were to establish a heavy industrial base and to complete the government's "agricultural revolution" by 1980.

Following the death of President Boumediene, Algerian development planning was halted for two years while a major debate took place over the results of the previous plans and their implications for the national development strategy. In this event, the First Five year Plan (1980-84) emerged from the debate. This Plan stressed continuity with earlier development plans but was more modest in its objectives. Half of the proposed 400 billion AD investment was allocated to completing schemes outlined in the last two plans (1974 to 1977 and 1978 to 1979). The key decision of the 1980-84 Plan was to slow down construction of the heavy industrial "motor", and to let it start generating power for the rest of the economy. For the first time, light industry was designated to receive a larger budget than heavy industry. With focus now on light industry, in an effort to support smaller and more flexible state entities, SONATRAC, the state petroleum organization, was

broken up into 14 component units, and the petroleum sector was used less as a source of trickle down development than to earn money for other sectors of economy.

Algeria has become a country of bottlenecks. Food housing, and consumer goods were inadequate to meet the demands of growing disposable personal income in a nation that had almost doubled its per capita GDP since independence (from \$1,200 to \$2,300 in constant figures). A high level of infrastructure investment is still needed to keep pace with population growth of about 3.2 per cent a year: pressure on housing, transport, water supply and sewerage in coastal areas already far exceed capacity. Long term finance for big investments in social infrastructure is expected to come increasingly from multilateral and bilateral institutions.

Responding to these challenges, the First Five Year Plan concentrated on such areas as food processing industries, textiles, and construction materials. It made housing the second largest investment sector (after industry) and targeted this sector for a higher growth rate. However, in 1985 growth in this sector was 5 per cent, well below the planned target of 8 per cent. The Plan also developed a geographic focus for consumer industrialization and dispersed the projected sites of light industry in the High Plateau inland from the coast so as to slow down in-migration toward the burgeoning coastal cities.

The Bendjedid government's Second Five Year Plan (1985-89) represents a major break with past policy, with priority going to agriculture and water supply, the major aim being to reduce Algeria's chronic food deficit. It also aims to develop infrastructure, putting special emphasis on railways and housing. Manufacturing industries have also been allocated considerable funds to promote the integration of the industrial sector. In view of the uncertainties over resources (e.g. hydrocarbon and oil revenues), greater reliance is expected to be placed on more flexible annual plans.

#### D. Development Planning Limitations

As in many less developed countries, Algerian planning is a better indication of directions than of accomplishments; observers note that only a third of the investment level prescribed in 1980-84 Five Year Plan was actually attained. Major projects such as the Algiers subway (originally \$1.1 billion), the Jilel steel mills (\$3 billion), and the Tiaret automobile assembly plant were postponed.

Also, Algeria is often under several forms of pressure from the Union Generale des Travailleurs Algeriens (the country's principal trade union) to maintain its salary levels and even improve them. The Union Generale des Travailleurs Algeriens is under tight party control, and salaried labor is an important part of the industrializing Algerian economy to be a force in the government's political calculations, since the government is by far, the largest employer in Algeria. As recent as 1986 when oil prices dropped significantly, there were talks of a civic servants' salary raise.

## II. The Current Budget

The GOA has been slow to implement the 1988 Finance Law. Delays stemmed from concerns over the effects of the quarter slump in oil prices on Algeria's export earnings and budget revenues. Another consideration has been uncertainty over the timetable for implementation of key economic reforms, some of which will require budgetary support.

The budget as approved is based on a projected oil price of \$18 per barrel at an exchange rate of 4.9 dinars to the dollar. As of May this year, oil prices have averaged about 9.5% below the \$18 dollar figure. The GOA has partially offset the effect of lower oil revenues by slowing distribution of allocated funds, while at the same time devaluing the dinar by an average of 7% against the dollar. The GOA projected a budget deficit of 10 billion dinars (\$1.9 billion, at \$1 to 5.25 dinars) down from 12 billion in 1987, which will be covered by internal borrowing, e.g. increased credit creation by the Central Bank. The operating budget (see Budget Table in Appendix 1) increase by 2.5 billion dinars over that of 1987, reflects traditional priorities, with the education, interior and defense ministries accounting for nearly half of the operating costs. Education including higher education accounts for over one third of the total operating budget. The Interior Ministry received a large increase in its budget because it will make larger transfers of funds to provincial and local governments for social and economic programs under the GOA decentralization policy. Nominal growth in the operating budget is 4 percent, and for the investment budget is 5.6 percent. The expected inflation rate of 12 percent yields a real reduction in government spending of around 6 percent. Lower real spending, higher non-hydrocarbon taxes and continued constraints on imports--will make it difficult for Algeria to reach projected 4.1 percent growth in GDP for 1988.

The Ministry of Planning was abolished at the end of 1987, and was replaced by a planning council funded out of the common expenditures account. The Agriculture Ministry budget was cut sharply as a result of decentralization and privatization of 3,500 large socialist collective farms. Other ministries

budgets--heavy industry, light industry, public works and commerce--were cut due to measures reducing ministerial oversight of state-owned enterprises under the enterprise autonomy reform.

#### A. Technical Assistance and the Budget

The Finance Ministry in 1988 has sought for tighter control of hard currency expenditures for foreign technical assistance contracts. The Popular Credit Bank (PCB) will keep all of these type contracts, so that the Finance Ministry can keep tabs of their cost to the economy. The immediate result so far has been that delays of contract payment have jumped from the usual three months to over seven months.

#### B. The Credit Budget

Algeria's present financial system is a channel of treasury funds to preordained uses. Therefore, every annual budget includes a budget for credit allocation. There is some flexibility in the credit allocation, since it is distributed by sector rather than by project. However, certain key projects are identified in the advance and take precedence over all others in the sector. This system is expected to change at some time 1988 to a financial trust form which is intended to depoliticize the credit allocation process and move the financial system toward a true capital market.

#### C. Revenues

Revenues are expected to increase by a nominal 7.3 percent in 1988, on the strength of a 10 percent increase in hydrocarbon receipts and a nearly 17 percent increase in indirect taxes. Taxes on developed property were reduced in order to encourage an increase in private housing, particularly for the lower middle class. the 1988 Finance Law offerors a 15 year tax exemption for any property whose development costs is less than 600 thousand dinars.

#### D. Total Expenditures and the Treasury Deficit

The budget deficit is projected to reach 10 billion dinars, down from 12 billion dinars in 1987. Extra budgetary treasury operations--food subsidy fund and net lending to public enterprises outside the credit budget --will cost an additional 21 billion dinars, for a total treasury deficit of 31 billion dinars. This deficit is virtually unchanged from that of 1987,

and will represent government dissavings equivalent to 9% of the GDP. The treasury deficit will be financed by commercial bank credits of 15 billion dinars, treasury bond issues of 12 billion dinars and increased deposits of 4 billion dinars.

### III. External Payments, the Debt, and International Borrowing

#### A. External Payments and the Debt

Algeria's external payments had been adversely affected by falling world demand for oil in recent years, as have revenues for other hydrocarbon exports. During the rapid industrial expansion of the 1970s, planners failed to take declining demand into account, and industrial investment fell from 61 per cent to 35 percent of total investment during the First Five Year Plan (1980-84). Algeria's need for imported goods is still high due to the country's commitment to continued educational and social development, the development of the manufacturing and agricultural sectors and rising food needs, as well as the high demand for electrical and other luxury consumer goods.

Debt mounted in the 1970s when Algeria borrowed heavily to finance its development and consumption. Heavy borrowing in the form of syndicated loans continue until the end of the decade, but with the debt rising dangerously, President Bendjedid reversed the trend. In June 1980 at the Party Congress, during the discussion of the First Five Year Plan, an 50 million AD annual limit on borrowing was set. In 1983 the debt service ratio reached 33 per cent. The debt service ratio is set to rise further, as high as 50 per cent by 1990, with long and medium term debt maturing in the mid-1980s.

It is estimated that Algeria's medium and long term debt as of mid 1988 is about \$20 billion, with debt repayment for 1988 at \$5.8 billion. However, the debt figure is subject to controversy and doubt. Different observers including the IMF have arrived at widely differing amounts ranging from 15.4 billion to 24.6 billion for the same period. With exports expected to drop to \$9.7 billion as the world oil market continues to stagnate, the dinar, is now falling, and the possibility of eventual debt rescheduling is being discussed.

The past policies that created a heavy debt burden (16.3 billion at the end of 1980) forced President Bendjedid to impose strict limits on spending in 1980, institute limited economic reforms, and begin a search for new creditors. The reforms implemented to date raise questions about GOA

commitment to their success. For Example, Although foreign investment will be vital to GOA debt management efforts the 1986 Joint Venture Investment Law places so high a premium on national control that few foreign partners have been attracted.

#### B. Diversification of Borrowing

After heavy borrowing in the 1970s and a lull while President Bendjedid's government came to grips with the debt problem in the early 1980s, Algeria has again become a large borrower.

Although the nationalization measures of the late 1960s and 1970s limited foreign investment in Algeria, in recent years, multilateral loans at favorable rates for development projects, from Arab sources in particular, have been important, along with borrowing on international markets, which has been the main source of funding for Algeria's development projects. As oil prices have stayed weak, the Algerians have diversified away from commercial credit to soften multilateral and bilateral creditors and guarantors. Of increasing importance have been the World Bank, the Japanese EXIM Bank (JEXIM), and the U.S. Commodity Credit Corporation (CCC). The World Bank has long been active in Algeria, but in 1987 and 1988, it has increased its activities, at the GOA's request. It is currently funding an important water project, as well as highway, railway, irrigation, and power projects.

JEXIM arranged large loans in 1988, both as a part of the Nakasone plan to recycle Japan's external surplus, and as a means to retain its share of a reduced market. It has a \$330 million package currently under negotiation with Algerian financial institutions. JEXIM has agreed also to provide \$47 million towards the World Bank's second railway project and 87 million dollars for the third power project.

The CCC GSM-102 program to finance purchase of U.S. agricultural commodities has increased from \$350 million in FY1987 to a de facto \$850 million for FY1989.

In Addition, smaller multilateral creditors and donors have become much more active in the last two years. This year, for example, the International Fund for Agricultural Development (IFAD) has established a \$15 million rural development project; the African Development Bank (AFDB) is considering a \$40 million loan to support the private sector as part of some \$800 million in lending; and the UNFPA will fund a \$7.5 million dollar population project.

### C. Algeria's Creditworthiness

Since independence, the GOA has not failed to meet its international financial obligations. Repayments of principal and interest are made regularly, maintaining the country's creditworthiness and allowing Algeria to return to the international markets when necessary. Algeria has consistently shown itself to have orthodox attitudes towards borrowing and is considered a "low risk" by banks - a rating shared in the Arab world only by the Saudi Arabia and the GCC states.

### IV. Foreign Assistance

Although aid plays only a minor role in Algeria's balance of payments, it is playing an increasing role in financing the GOA's national development projects. Algeria has secured loans on very favorable terms from a number of bodies. These include the World Bank, which loaned \$290 million for the improvement of Algiers water system in 1984 and another \$262 million for water projects in Oran and Constantine in 1985. It is important to keep in mind that Algeria has had some problems with negotiating World Bank loans. In 1985, the World Bank threaten to block future loans because of a dispute of over Algeria's allocation of contracts to countries which favor countertrade as an element of their payments, a process of which the World Bank disapproves. Algeria has also secured loans from the EC, but Arab sources have dominated in recent years, amounting to \$701.35 million in 1984, including \$478 million from the Islamic Development Fund, with which Algeria has developed particularly good relations.

Early in 1988, the Governor of Algiers approved the proposal to establish a Trade and Development Program (TDP) grant to study the rehabilitation and expansion of the city of Algiers' water treatment system. The American Embassy will support the study as long as it is not a duplication of a study completed by the French.

## V. Population Information

Algeria has one of the world's fastest growing population, with large families the norm. The total population has risen from 12 million in 1966 to an estimate 21.5 million in 1985. It is still growing at a very high annual rate of about 3.2 per cent. Overcrowding is a problem, although Algeria is the second largest country in Africa with a land mass covering 2,381,741 kilometers. Of this, only 295,000 kilometers is considered to be the "north" 12 per cent of the land area, where the bulk of the population (91 per cent) is gathered, while the rest of country is sparsely populated.

Since its independence in 1962, Algeria's urban population has grown at a staggering annual rate of more than 5%. The population growth has been particularly fast in the cities and the towns adjacent to the three largest metropolitan areas of Algeria's, Oran, and Constantine, where almost 41 per cent of the urban population (4.2 million) is concentrated. In 1982 over 66% of the total population lived in urban areas. Algiers, the country's capital, population was 2.4 million according to 1982 estimates, and is probably over 3 million in 1988. As a result of natural urban growth rates and massive migration from the country side "the bled" over the past 15 years, between 1970 and 1979, some 1.7 million peasants settled in Algiers, Oran, and Annaba. The annual growth rate of the urban population is now 5.4%.

## VI. The Housing Sector

Rapid urbanization contributed to a serious shortage of housing. The high birth rate and urban influx strained the urban infrastructure left behind by the French in 1962, particularly in regard to water supply and sewage disposable systems.

since 1979, the government has given much greater attention to urban infrastructure. It set a target of 200,000 new homes a year, even though the number of houses needed annually may be as high as 250,000. In the First Five Year Plan (1980-84) an additional component, equal to two-thirds of the 1.2 million unit housing target for 1990, was to be built by owner-occupiers with state subsidies for land and materials. However, As of 1985, an estimate of 80,000 houses were being completed each year. Although 86 billion AD was allocated to the housing budget, which reflects 15.6 per cent of total investment, in the Second Five Year Plan (1985-89), the lack of available funds from lost revenues makes the target of 200,000 housing a year almost unobtainable.

Outside the cities and densely settled countryside of the Mediterranean coastal belt, the population of the High Plateaux is scattered in much lower settlement densities. Less than 10 per cent of the population lives in the Saharan regions. Nevertheless, this is starting to change, towns are growing fast as previously isolated regions become more accessible and offer a more sophisticated infrastructure and job opportunities as a result of the GOA's policy of developing the High Plateaux, assisted by the relocation of industry to these regions.

Investment in rural and southern areas has sought to encourage settlement to slow urban growth on the coast. Most southern towns now have an industrial zone and a modern residential zone on their outskirts with hospitals, schools and other facilities as well as housing. However, urban developments are going farthest in Algiers, ranging from the refurbishment of the capital's oldest quarter, the Casbah which was handled by Olirac, a company established in July 1985 for the purpose, and outside advisers, to the modernistic developments around the new Martyr's Monument (Makam Eshahid) and the Victory Gardens (Riyadh el Feth) development, which will include the demolition and complete rebuilding of the populous Hamma quarter over the next few years.

#### A. Algeria's Development Plans and the Housing Sector

(Note: Most of the information in this section is from a thesis titled "An Alternative Approach for Low Income Housing in Algeria: Housing Cooperative" by Assia Khellaf, M.I.T., June 1983.)

The reasons for the acute shortage of housing in Algeria's urban areas are varied and complex. Besides the easily identified problem of the high rate of growth of population, the shortage of housing is also directly related to the economy and development strategy of the country, and to housing policy options and implementation techniques. The consequences of the first three development plans focus on heavy industry was the neglect of other important sectors. The slow development of the construction sector is also partially responsible for the shortage of housing. The lack of public attention in this sector lead to insufficient investments, and deficits in production of construction material, supplies, and equipment, all of which constrained the development of the building sector.

The Algerian government, in several of its multi-year development plans, has been increasing the level of funds allocated to the housing sector in an attempt to address the acute shortage of housing in urban areas. Funds allocated to housing increased from 5.5% in the Second Plan, 1970 - 1973 to 15% in the Fourth Plan, 1980 - 1984. An average of 100,000 houses a year was proposed to be built during the Fourth Plan 1980 - 1984, and is expected to reach 200,000 per year by 1990. However, in N. Benmatti's doctoral thesis in 1978, he noted that an estimated 3 million more houses would be needed in urban areas by the year 2000 at the country's present 3.2% population growth rate.

Algeria's previous housing policies and strategies for development were closely dictated by its political orientation - an ideology based on a socialistic and egalitarian principles. The government controlled the construction and financing of housing. Even though the government had been unable to deal with the rapid increase in demand for housing because of its lack of adequate mechanisms to facilitate the production process. Fortunately, the GOA has gradually began to realize that it does not have the finances, the technical expertise, or the management skills to mobilize production to projected levels. It then adopted an alternative strategy to address effectively the increasing demand for housing, and other national development issues. The government hopes that its adopted policy of promoting and supporting the private sector role in development, will be instrumental in the financing, production, and maintenance of the housing sector, as well as improving and expanding other important infrastructure. Hopefully, this approach will limited the government's role to providing an effective framework for the development of some sectors and will increase the role of the private sector in the production and financing of houses and other infrastructure that the government has controlled traditionally.

#### B. Algeria's Housing Policy

The Ministry of Housing did not view housing as just a shelter, but also as a tool for spatial and economic development. Now, on an attempt to resolve the housing crisis, the Ministry is mobilizing the housing sector and setting up an institutional framework to regulate the housing construction sector. It has supported the following policies: 1) A decentralized control of the planning and implementation of housing projects to be effectively in place by the end of 1984; 2) The introduction of new technology in housing construction and prefabrication; 3)

The redefinition of rent policy and selling policy of public housing; 4) The encouragement of private ownership of family homes; and 5) The encouragement of private participation in financing housing through private savings. At the time of this thesis, many of the above mentioned policies were in the planning stage. Nevertheless, the first policy, decentralization of project implementation, had met with some success. The policy has helped regional decision makers to identify problems and needs and to respond spontaneously. It also decreased coordination problems between regional and central authorities.

While changes in the housing policy has improved the accessibility to decent housing for middle income to high income households, it is unlikely that these policies have significantly affected the low-income household groups.

## II. The Water and Sewage Sector

(Note: The information below is from the World Bank's First and Second National Water Supply and Sewerage Projects staff appraisal reports dated May 10, 1985 and April 23, 1987)

### A. Background

The expansion of the Algeria's social infrastructure has not kept pace with the rapid population growth and public services such as water supply, sewerage, transport, telecommunications, etc are deficient. The water supply systems that were built in Algiers, Oran and Constantine in the 1950s had never been expanded and as a result, severe water shortages are experience in these areas. It was not until the late 1970's that there were few improvements in urban infrastructure. Before the World Bank started its two water supply and sewerage projects, which began with a loan in 1978 for \$82 million, it was estimated that the available water production for each of these cities could barely meet two-thirds of the demand.

The \$82 million loan for the Algiers Sewerage Project financed sewerage works in Algiers and feasibility studies of water supply and sewerage in Oran and Constantine. Theses studies resulted in the development of a construction program for water supply and sewerage facilities for Oran and Constantine was prepared. The total project cost was estimated to cost \$571.7 million, with a foreign exchange component of \$312.8 million. A Bank loan of \$262 million was used to finance part of the

project component. One of the objectives of this project was to strengthen the sector organization in Algiers, which led to the GOA decision to set up similar authorities in the rest of the country.

The GOA has continued to accord high priority to the improvement of water supply and sewerage in the large urban areas. One can see from the table below how the level of funding support has more than doubled in three multi year government plans.

Investment in Water Supply and Sanitation	Total		Per Capita	
	DA	US\$	DA	US\$
	billions			
1974-77	4.0	0.8	240	48
1980-84	6.0	1.2	300	60
1985-89	10.3	2.2	476	102

The GOA started a new water supply works for Algiers and the surrounding areas, estimated to cost \$770 million; and the World Bank approved a loan for \$290 million to partially finance the work.

Until the late 1970s, an agency called SONADE under the Ministère de l'Hydraulique, de l'Environnement et des Forêts (MHEF) was responsible for water production. Distribution and maintenance were the responsibility of the municipalities which were responsible to the Ministry of the Interior. The municipalities purchased the water from SONADE. In the late 1970s, a reorganization of the sector was undertaken and the MHEF assumed responsibility for all aspects of water resource planning, development, and distribution for both irrigation and potable use. The responsibility for management of water supply and sewerage was delegated to thirteen regional public utilities companies, which were established as financially autonomous publicly-owned enterprises, and managed as commercial entities. The reorganization was described as being successful. In addition to the 1983 sector reorganization, the GOA issued a Water Code (Law No. 83-17 of July 16, 1983) to regulate the allocation and protection of water resources and to set out financial policies for the sector. The Code states that water utilities should be managed as commercial enterprises, setting tariffs that encourage economic use of water and enable the entities to be financially self-supporting.

The "Agence Nationale de l'Eau Potable et Industrielle et de l'Assainissement (AGEP) was established within MHEF in 1985 to coordinate the operations of the regional authorities and to assist MHEF in planning and implementing water supply and sewerage investment programs and monitoring sector policies. Within the Algerian water supply and sewerage projects, the government carried out a reorganization of the water supply and sewerage sector, under the regional companies, instead of municipalities, now provide such services. The reorganization was thought to be a necessary step towards improving the management of all the services and building up the sector's financial viability. The World Bank provided technical assistance during this reorganizations.

In the objectives of the GOA's sector strategy in the Second Five Year Plan (1985-89), high priority has been given to overcoming water supply shortages as well as improving water storage and management of water supply, and improving sewerage and sanitation, particularly in urban low income areas.

The Algerian government proposes to invest in four regional water supply and three sewerage projects, the expansion and renovation of water distribution systems of the 13 regional companies, several studies and training during its Second Five Year Development Plan (1985-89). These Projects along with ongoing projects in the cities of Algiers, Oran and Constantine, are described as the core of the government investments in the water supply and sewage sector during this planning period. The projects are intended to increase water supply, and provide sewerage and sewage treatment facilities in major, intermediate and small-sized cities and towns nationwide. The MHEF made its selection of individual water supply projects based on the most severe water needs arising from high population growth and deficiencies in present water systems. Sewage treatment projects will concentrate on protecting raw water sources from pollution. It is expected that at least 60% of all consumers in the country will benefit from these projects.

The World Bank's project's objectives are to support the GOA's Second Five Year Development Plan and Investment program in the water supply and sewage sector.

## B. Project Implementation in the Second Five Year Plan (1985-89)

Project implementation was scheduled to begin in mid 1987 and be completed by the end of 1989. The AGEP will carry out the project implementation, as in the case of previous Bank assisted projects. Construction under the project will be carried out by local firms and has been excluded from Bank financing.

The World Bank identified the Ain Dalia and Mexanna dams as important structure within the project that should be carefully monitored by engineering experts employed by the MHEF to assist in inspecting the dame and related structures annually during construction and the first five years after completion.

Inhabitants in those two areas to be covered by the reservoirs at Ain Dalia and Mexanna will be resettled after the construction of replacement housing are completed.

The Oued Medherda, an international waterway flowing from Algeria to Tunisia, is the raw water source for the Ain Dalia-Souk Ahras water supply subproject. Its river basin is shared equally by the two countries. As of the April 23, 1987 Staff Appraisal Report, the Bank had not received documentation from the GOA showing that an agreement was reached on riparian rights. If documentation was not shown by the end of 1987, the GOA can request a replacement of this project component by another one that conforms with Bank criteria for acceptability.

The project is expected to benefit some 2.2 million people living in the project area by increasing water production to levels required to reduce the current supply deficit. The GOA hopes to reach its objective of meeting the nation's water needs of years 1995/2020, based on it's goal to supply between 150 and 200 liters per capita per day (lcpd).

## C. Project Financing

The total project estimated cost is \$630.5 million. A Bank loan of \$250 million will finance direct foreign exchange expenditures. This loan will finance mechanical, electrical, and treatment equipment, wellfields and service reservoirs, pipes, and technical assistance and studies. A syndicated loan of \$200 million will finance the balance of the foreign exchange cost and part of the local cost. The regional companies will contribute \$94.6 from cash generation and the government equity contribution will total 85.9 million. The regional companies would finance part of of the projects distribution network expansion, while the government will finance the rest.

When the project is completed, the MHEF will transfer ownership the work completed to the regional companies. Under Algeria's Water Code Law 83-17, the regional companies are required to finance their investment principally by long-term borrowing and to achieve eventually self-financing capability. Therefore, the regional companies will reimburse the GOA the equivalent of the World Bank loan.

### Bibliography

The Economist Intelligence Unit. Country Report: Algeria. Annual Supplement 1985.

The Economist Intelligence Unit. Country Report: Algeria. No. 21, 1988.

Khellaf, Assia. "An Alternative Approach for Low Income Housing in Algeria: Housing Cooperative." M.I.T., 1983.

Makhlouf, Mounir. "Algeria: Economic Objectives and Difficulties." MEMO, Vol. 11, No 19, November 20, 1987, pp. 7.

Middle East Economic Digest, Ltd. "Cnadli's Next Step: Algeria's New Five Year Plan." Vol. 29, No. 18, 3-9 May 1985, pp 8 - 11

Nelson, Harold D., eds. "Algeria: A Country Study." Washington: Foreign Area Studies, The American University, July 1985.

United States Department of State Cables:

- "Algeria's Balance of Payments and Debt Perspective," Algiers 04778, September 7, 1988, 11 pages
- "GOA's 1988 Budget: When Does the Belt Run Out of Notches?" Algiers 02776, May 11, 1988, 6 pages

The World Bank. "Algeria: National Water Supply and Sewerage Project, May 10, 1985." Staff Appraisal Report, Water Supply and Sewerage Division, Europe, Middle East and North Africa Regional office, Report No. 5452a-AL

The World Bank. "Algeria: Second National Water Supply and Sewerage Project, April 23, 1987." Staff Appraisal Report, Water Supply and Sewerage Division, Europe, Middle East and North Africa Regional Office, Report No. 6582a-AL.

Zartman, William I. "Algeria Today and Tomorrow." The Georgetown University Center for Strategic and International Studies, No. 65, November 28, 1986.

Operating Budget by Ministry (Millions of Dinars)

Ministry	1987	1988	Percent Change	
			1987-1988	(Real Change)
PRESIDENCY.....	585	708	19.7	(7.7)
DEFENSE.....	5885	6864	4.8	(-7.2)
FINANCE.....	1613	1668	2.9	(-9.1)
FOREIGN AFFAIRS.....	583	831	42.6	(38.6)
INTERIOR & LOCAL GOVERNMENT.....	4882	7763	93.9	(81.9)
JUSTICE.....	668	676	1.2	(-10.8)
AGRICULTURE.....	772	446	-42.3	(-45.2)
INFORMATION.....	373	378	1.3	(-10.7)
.....	187	83	-22.4	(-31.7)
TRANSPORTATION.....	413	327	-20.9	(-38.4)
EDUCATION.....	15886	17881	7.5	(-5.5)
HIGHER EDUCATION.....	3494	3432	-1.8	(-13.6)
ENERGY & CHEMICALS.....	216	197	-8.6	(-19.6)
VETERANS AFFAIRS.....	3192	3151	-1.3	(-13.1)
COMMERCE.....	148	63	-57.8	(-62.9)
RELIGIOUS AFFAIRS.....	473	49	-89.6	(-98.9)
LABOR & SOCIAL AFFAIRS.	2863	1882	-12.6	(-23.1)
CULTURE & TOURISM.....	226	238	5.4	(-6.6)
WATER, ENVIRONMENT & FORESTS.....	818	343	-57.7	(-62.8)
PUBLIC WORKS.....	697	89	-87.2	(-88.8)
PLANNING.....	166	0	-100.0	(-100.0)
HEALTH.....	3961	3872	-2.3	(-14.8)
LIGHT INDUSTRY.....	132	116	-12.2	(-22.7)
YOUTH & SPORTS.....	396	285	-48.2	(-54.4)

Operating Budget by Ministry (Millions of Dinars)

Ministry			Percent Change	
	1987	1988	1987-1988	(Real Change)
URBANISM, HOUSING & CONSTRUCTION.....	439	171	-61.0	(-65.7)
POSTS & TELECOMMUNICATIONS.....	-	86	(1)	.
COMMON EXPENDITURES....	15779	15657	-0.8	(-12.7)
TOTAL.....	63000	65500	4.0	(-8.0)

INVESTMENT BUDGET BY SECTOR (MILLIONS OF DINARS):

SECTOR	1987	1988	PERCENT CHANGE 1987-1988 (REAL)
HYDROCARBONS.....			
MANUFACTURING.....	768	700	-8.9 (-19.8)
MINES & ENERGY.....	1305	1300	-0.4 (-12.0)
AGRICULTURE AND IRRIGATION.....	7226	7450	3.1 (-8.9)
SERVICES.....	238	135	-43.3 (-50.1)
ECONOMIC & ADMINISTRATIVE INFRASTRUCTURE.....	7547	8369	10.9 (-1.1)
EDUCATION & TRAINING...	7854	7100	-9.6 (-20.5)
SOCIAL & CULTURAL INFRASTRUCTURE.....	3212	3294	2.6 (-9.4)
CONSTRUCTION.....	1950	2142	9.9 (-2.1)
MISCELLANEOUS.....	6000	6640	10.7 (-1.3)
COMMUNITY DEVELOPMENT & SMALL BUSINESS PROGRAMS	5500	5650	2.7 (-9.3)
INFRASTRUCTURE & TRAINING COSTS OF STATE FIRM INVESTMENTS.....	1300	470	-63.9 (-68.2)
START-UP COSTS OF NEW STATE FIRMS .....	300	150	-50.0 (-56.0)
STATE FIRM FINANCIAL RESTRUCTURING.....	1500	3400	126.7 (114.7)
CHIEF HOUSING REPAYMENT	300	700	135.3 (123.3)
TOTAL.....	45000	47500	5.6 (-6.4)