Algeria’s New Oil Strategy
Lahouari Addi

To cite this version:

HAL Id: halshs-00397824
https://halshs.archives-ouvertes.fr/halshs-00397824
Submitted on 23 Jun 2009

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.
Algeria's New Oil Strategy

Lahouari ADDI

Professor of Political Sociology to the IEP of Lyon


Sommaire

- The Structural Crisis of the Algerian Economy
- An Economic Crisis Imposed by the Nature of the Political System
- The National Doctrine of Natural Resources
- Algeria's New Legislative Regulations
- Economic Reforms and Liberalization in the Oil Industry
- Oil Strategy and the Rentier State
- Conclusion

Texte intégral

Since the collapse of oil prices in the mid-1980s, Algeria has attempted to modify its national petroleum strategy in order to encourage foreign investment in oil and gas production. This effort was justified by a constantly growing need for external resources to meet internal demands created by a growing population and to defray the increasing budgetary deficit in the public sector. In this chapter I will attempt to show that the contradictions of the Algerian economy and the rentier state are politically sustainable only if the state attracts a certain level of external resources. These external resources are required to import food and semi-finished products needed for industry. The new petroleum strategy thus stemmed from the necessities of the Algerian political-economic system and was not an expression of any basic change in the political orientations of the regime. To meet my objective, I must first expose the dysfunctions of the Algerian economy and show that the current crisis can basically be explained by the political system—regulated as it is by a neopatrimonial logic and by the redistribution afforded by a rentier state.

The Structural Crisis of the Algerian Economy

When Algeria achieved independence from France in 1962, the national economy displayed all the characteristics of an underdeveloped country suffering the constraints of dependence. Agriculture dominated the economy both in the structure of the work force and in the trade balance. The agricultural sector was typical of a dependent country, divided into a modern sector oriented toward cash crops for export (wine, citrus, etc.), and a traditional sector in which self-sufficiency played an important role. Industry was essentially extractive (minerals, petroleum products) but included a few value-added activities fed by private investment in areas such as food, textiles, and leather. Unemployment was kept to a tolerable level by virtue of massive recruitment into the bureaucracy, emigration to France, and the precarious opportunities available in the informal sector.
This economic structure, the legacy of colonialism, began to change in 1970 with the launching of the first four-year plan, whose objective was to create heavy industry in order to advance complete industrialization and bring an end to economic underdevelopment. Between 1967 and 1978, according to the "Synthèse du Bilan Economique et Social" (Ministère de la Planification et de l'Aménagement du Territoire, Alger 1980), 300 billion dinars were invested, creating 1.1 million jobs. These new jobs decreased the unemployment rate from 25 percent to 19 per cent of the active population. During the 1970s two four-year plans (1970-73 and 1974-77) provided Algeria with a significant industrial base in the areas of hydrocarbons (condensates, liquefied natural gas, refined products, liquid hydrocarbons), chemical and petrochemical industries (paint, detergents, industrial gas, pharmaceutical products), smelting industries (steel rods and sheets, liquid steel), construction and mechanical industries (industrial vehicles, agricultural machinery, public works, and hydraulic equipment), electronic industries (television, refrigerator, and telephone), light industries (food, textiles), as well as construction materials, wood, glass, and ceramics. However, investments primarily targeted petrochemicals and construction materials, and largely neglected consumer products.

During the same period, employment other than agricultural grew from 28.3 percent to 48.9 percent of the active population, while agricultural employment fell from 50 percent to 30.4 percent. Income from salaries grew from 5.8 billion dinars, earned by 1,177,000 employees in 1967, to 33.4 billion dinars, earned by 2,193,000 employees in 1978. In spite of its size, the industrial base created in the 1970s directly employed only about 150,000 people: about 4 percent of total employment or 11.6 percent of industrial employment. Government planners opted for frontline technologies over job creation. Nonetheless, industrialization has had secondary effects on the construction industry, as well as trades, services, and public administration, jobs in the construction sector alone accounted for 30 percent of total employment.

Nevertheless, though investments were large, results were modest—beyond all expectations. Between 1967 and 1978, the GNP grew from 40 billion to 86.8 billion dinars, which was very little given the amount of investments. One of the noticeable traits of Algerian industry was its feeble return on investment. Industry did not replace hydrocarbons as a major source of revenue, as government planners had wished. Even more serious was the fact that the newly created state enterprises, unable to recoup their original investments or cover their current expenses, generated larger and larger debts. The total deficits of state-owned businesses grew from 408 million dinars in 1973 to 1.88 billion in 1978 and reached 110 billion in 1987. (This last figure is from the president's speech at a special congress of the FLN held in November 1988.)

This massive deficit generated inflation and tended both to reduce the purchasing power of people living on fixed incomes and to encourage speculation. As a way of expressing their discontent, workers slacked on the job, plunging state businesses, already plagued with external deficits, into a cycle of underproductivity from which recovery was very difficult. Social stability was more or less assured, however, by state imports of foodstuffs, some of which were subsidized. These imports (which accounted for 47 percent of dietary intake and 36 percent of proteins) made up 17 percent of total imports between 1967 and 1978, and 19 percent between 1979 and 1983. Price supports represented 6 percent of the government budget between 1979 and 1982. Only a huge petroleum income could permit constantly growing food imports—growing from 731 million dinars in 1967-69 to close to 9 billion in 1980-84. Numerous observers reflected that Algeria was in the process of literally eating up its petroleum resources.
An Economic Crisis Imposed by the Nature of the Political System

Armed with large financial resources from oil exports, Algeria chose to invest in a vast industrialization program. The objective was to regain the investment and, in time, to move away from hydrocarbons as a source of revenue. This objective was not achieved. First, many industries were established in the absence of necessary infrastructure such as water, communications, transportation, and skilled labor. Second, market equilibrium was not respected as industrialization was realized. Decision-makers, thinking only in terms of technical networks, ignored the balance between production and consumption, and political authorities refused to acknowledge—and fueled—inflation by paying high salaries without respect for monetary constraints. Inflation reduced the value of salaries but supported the accumulation of vast private fortunes in business.

The accumulated deficit of Algerian state businesses, the source of these economic difficulties, can be explained essentially in political terms. The government refused to face up to fiscal limitations; it failed to pressure workers to increase production; and it failed to pressure management to expand markets and improve product quality. Such confrontational actions might lead, at least temporarily, to the shutting down of state enterprises. Algeria's rulers, concerned with their own interests and not with the nation's economy, sidestepped these difficulties, preferring to finance the deficit and to import consumer goods, thus wasting the oil wealth for their own political preservation. This artificial balancing of the books by means of deficit spending would provoke a disequilibrium on the macroeconomic level which was acceptable until 1985-86 only because of significant external resources.

Once the external financial resources were no longer sufficient to hide this disequilibrium, the model suffered a severe crisis. The fall in the price of oil, from $30/barrel in 1982 to $12/barrel in 1988, led to a brutal reduction in state revenues, which were no longer large enough both to service the debt and to import consumer goods and intermediate materials required by industry. The popular uprisings of October 1988 were the direct consequence of these economic disjunctions, which the underprivileged classes suffered in the extreme.

According to figures provided by the president during a special congress that followed the October uprisings, Algeria's external debt reached $1 billion in 1970, $16 billion in 1980, $13.6 billion in 1986, and $19 billion in 1988. These figures gave rise to much debate: other sources estimated $29 billion in 1988. The debate ceased, however, with the publication of new official figures admitting a $24 billion debt in 1988, with which World Bank figures concur, estimating $24.8 billion in 1988 (1989-90 report). Furthermore, these same figures indicate that 71.3 percent of this debt consisted of obligations to private banks. Service on this debt cost $8.4 billion annually (compared to annual receipts totaling $10-$12 billion) which led to a deficit in the capital balance of $2.54 billion. The ratio of debt to exports was 2.832, which meant that the total amount of the debt equaled three full years of export income.

Upon his nomination in September 1989, the president provided figures that shed light on the economic situation in the wake of the horrendous fall in world oil prices. Household expenditures were down 7.6 percent per inhabitant in 1988, and per capita income was down 8 percent, while purchasing power fell 15 percent in 1987 and 1988. The consumer price index for the cumulative years 1985-88 grew by 46.7 percent, a record level for inflation in
Algeria. The other consequence of the crisis, due both to the fall in world oil prices and the poor return from state industries, was unemployment. On the heels of the deceleration in investments begun already in 1979 (—2.5 percent in 1979-82), unemployment began a steady rise. The number of unemployed grew by 117,000 in 1987 and by another 112,000 the next year. Unemployment was estimated at 1.2 million in 1989 (22 percent of the active population), with 75 percent of the unemployed population between eighteen and twenty-six years of age. Furthermore, Algeria faces a yearly demand for 200,000 new jobs, which the current state of the economy cannot satisfy. This growth in unemployment, added to the effects of the deficit, threatened social stability in the late 1980s and continues to do so in the 1990s.

By giving rise to an artificially high demand for consumer goods, the budget deficits led to speculation and penury that aggravated the constraints on imports. The effects of these deficits became intolerable for those living on fixed incomes and politically dangerous insofar as they aggravated social tensions. It is in this context that the government launched the liberalization of industry, hoping to curb the budget deficit. However, this reform provoked strong resistance from proponents of a centralized economy, who set themselves up as defenders of the socialize alternative. In this political climate, shortly after the riots of October 1988, the government expressed its intention to modify legislation concerning foreign oil companies so as to encourage joint ventures that could generate more resources for the state. To assess the extent of the changes introduced by the state, it is necessary to recapitulate the petroleum policies of a decade earlier.

**The National Doctrine of Natural Resources**

A striking aspect of recent developments in the international oil industry has been the change in attitude on the part of oil exporters. The most audacious among these had, in the 1970s, forcefully announced their intention to gain control of the mechanisms for setting prices, an intent that some thought to extend to all natural resources that the Third World exported to developed countries. In the 1970s, a nationalist doctrine of natural resources was developed, whose general principles were spelled out in a speech given by Algerian president Houari Boumedienne at a UN special session on natural resources. By means of this doctrine, thenceforth recognized as legal and legitimate by the international community, exporters of natural resources in the Third World hoped to attain maximum profits for commodities in order to finance their countries' economic development.

Until 1985, petroleum-exporting nations (most of them members of OPEC) were able to exert influence for a rise in the per barrel price of oil. Nonetheless, interests, even within OPEC, did not always converge. Major exporters that were politically allied with consumer nations, such as Saudi Arabia and Kuwait, sought to avoid weakening the world economy with overly high oil prices—all the more so because these countries, with their sparse populations, did not face heavy financial requirements for industrialization. In contrast, Iran, Algeria, Iraq, and a number of other petroleum-exporting countries desired the highest possible price levels to support their programs of industrial development.

And yet the world petroleum market has been modified to the extent that legal possession of oil and gas fields is no longer sufficient to set the price per barrel on the world market. The factors that removed the autonomy of that decision have been touched upon in other chapters in this volume and include the entry into production of nations not affiliated with OPEC and the creation of the International Energy Agency, a veritable counter-OPEC entity that
developed an effective strategy of reserve building which neutralized upward trends in price. In just a few years, the legal ownership of oil wells has been separated from the ability to set the price on the world market. Algeria or Iran might very well own their petroleum; they might control 51 percent or even 100 percent of the shares of corporations operating in their territory; but they were no longer capable of significantly influencing prices on the world market.

In this new situation, the nationalist doctrine of natural resources became anachronistic. Even more, it became a handicap if the exporting country did not have the financial and technical means for prospecting and well production. It is in this sense that one must understand the declaration made by Sid-Ahmed Ghozali upon his nomination as prime minister of Algeria in July 1991 stating his willingness to sell 25 per cent of Hassi-Messaoud field to foreign companies. This declaration made a big splash in the local press, because it threw two important symbols into the ring: Hassi-Messaoud and Sonatrach, Algeria's state oil company. First, Hassi-Messaoud represented the Algerian state's intention—announced on February 24, 1971, the date of the nationalization of foreign oil and gas companies—to be the proprietor of national wealth put into service for development. Second, Ghozali himself had been the longtime chief executive officer of Sonatrach, the instrument of nationalization.

**Algeria's New Legislative Regulations**

Ghozali's declaration reflected the limits of the nationalist doctrine and, consequently, Algeria's urgent need for new financial resources to resolve its deep economic, social, and political crisis. Entirely dependent (98 percent) on its hydrocarbon exports, Algeria's export revenues currently amount to some $12 billion per year. However, it faces between $7 and $8 billion annual service on its foreign debt and must import another $7 to $8 billion worth of food and manufactured goods required by industry. Thus it faces a chronic trade deficit of $3-$4 billion each year.

The government estimates that only 10 percent of the Algerian Sahara has been explored so far and that fifteen wells are drilled per year. Sonatrach, the state oil company, believes the number could be increased to ninety. Moreover, the government is opting for a strategy of intensive exploitation of oil resources that only foreign companies can accomplish. Sonatrach estimates that the research and development effort will require $5 billion a year for the next ten years. Putting into production those natural gas fields that have already been discovered but not yet exploited will also require $5 billion between now and 1998. Tapping current reserves—estimated at 450 million metric tons—could cost an additional $5 billion. In total, this, new strategy of intensive exploitation would require external financing in the realm of $15 billion and could net, in the near term, $6-$7 billion and $50 billion between now and the year 2000.

The government needs financial participation by foreign companies in order to raise the level of petroleum production, but the Petrol Code of 1986 discouraged all outside investment. Therefore, it was necessary to modify it in order to attract foreign companies. Point 4 of the preamble to the revised law, passed by the Parliament in November 1991, states: "The mobilization of our resources needed to manage the national debt and encourage national investment, as well as our desire to encourage participation by foreign companies in improving the recovery rate of reserves currently being exploited, will eventually lead us to
grant to these companies a limited (and always minority) interest in ongoing production for a
given period and according to specific conditions.

In order to attract foreign companies, the new law introduces the following modifications: (1)
extension of the regime governing liquid petroleum products to natural gas; (2) extension of
access of foreign companies to newly discovered, as well as currently producing, fields; (3)
modification of fiscal policy so as to offer more incentives, with possibilities for reduction of
tariffs and taxes on revenue, in order to push the research effort in the direction of ignored
regions; and (4) an international arbitration clause for the resolution of potential conflicts
between Sonatrach and its foreign partners. Article 65 of the August 1986 law—which did not
permit foreign partners to share in fields discovered before 1986—has been-superseded by
these new amendments.

In 1992 Algeria's minister of energy, Noreddine Ait-Lahoussine, explained these changes to
American oilmen:

A few months ago, what I proposed to our parliament to denationalize Algeria's gas reserves
and to privatize the mining industry, I did so in the full knowledge that I had 20 years earlier,
with some of my colleagues in government, advocated the very measures that I was now
proposing be overturned. What we did 20 years ago, and what we are doing today serve the
same purpose: that is to create the necessary conditions so that economic development can
flourish for the benefit of the Algerians. Twenty years ago, the foreign companies had so
much control over Algeria's natural resources that they could suffocate the national interest.
Furthermore, our national company was not experienced enough to play, with no handicap, in
the league of the international companies. So nationalization seemed the proper course. Now
the situation has changed. Algeria has ownership, and Sonatrach has become a mature player.
But we recognize that we lack the financial means and that we do not have the sort of
technical and human resources required to fulfill our ambition.[1]

These words from the minister of energy explain why Algeria felt compelled to change.
Sonatrach, the national company, had neither the technical nor the financial means to put new
fields into production, despite the existence of important proven reserves.

Nonetheless, Ait-Lahoussine refected the view that he was introducing an entirely new policy
that would be in conflict with the nationalist doctrine of natural resources. Instead, he
attempted to convince the rather skeptical deputies of the national assembly that it was only a
new oil strategy, not a new oil policy. He explained to them that the objectives of this strategy
were basically to relaunch the effort of exploration and extension of discovered fields and to
increase the recovery rate for existing fields. The current Algerian leaders do not believe that
they are reneging on past commitments but merely adapting to a new situa tion.

Economic Reforms and Liberalization in
the Oil Industry

The new strategy was in fact part of a general policy of economic liberalization in Algeria.
The general policy, however, has faced serious political and social constraints. The industrial
legacy of Algeria's voluntaristic industrialization policies of the 1970s is continuing to run
deficits which burden the state budget. In the face of a social demand hitherto satisfied by
state food imports, Algeria faces ever greater financial needs. To solve these problems, Algerian leaders have had to choose between two policies.

The first policy was to undertake structural reforms of the economic apparatus so as to make it efficient and capable of generating new wealth. Thus consumer demand could be satisfied by the surplus value generated by income-bearing companies. These reforms, however, were not easy to implement because they entailed an openness to compete in the international market that would result in bankruptcy of many state companies. No regime could survive the social consequences of such reforms, nor did the leaders seem aware of the magnitude of the task. Since 1986, successive governments have attempted fruitlessly through a variety of laws to compel the state companies to become autonomous. "They all failed because none could apply the logic of a market-driven price system to the state companies.

The second policy consisted of retaining current economic structures—along with business deficits in the public sector and artificial markets—while increasing oil exports. The government led by Prime Minister Ghozali appeared to be leaning toward this second policy, which was easier to implement and was the only one that might succeed in the short term. Presenting his program to the parliament in July 1991, he declared, "The dimensions of Algeria's problems can be measured by the immense distance that exists between the level of our people's consumer demand and their desire to attain modernity and the level of production resulting from the tragically insufficient mobilization of material and human resources. Suppressing this demand can only be a temporary measure. If we wish to speak of a solution, there is no alternative to raking production and mobilizing our resources. Increasing production, development, and the mastery of related processes are long term goals, whose attainment we cannot await for the solution to our problems. As for resources, by contrast, our country possesses a trump suit that may be decisive. I am speaking of underground resources, specifically of oil and gas."[2]

In his answers to the deputies questions, Ghozali did not explain the economic crisis either by the poor performance of state companies or by the post-1985 collapse in world oil prices. His explanation resuscitated the old late-1970s debate over the possibility of an intensive exploitation of natural resources. Citing his former boss and political mentor, Belaid Abdesselam, he explained that the problems were rooted in the dismantling of contracts for the export of natural gas in 1979-80. This dismantling deprived the country—and continues to deprive it—of several billion dollars each year.[3]

Dramatic events in 1992 reinforced the choice to expand petroleum production. President Chandly Bennedid was dismissed from office, and his successor, Ahmed Boudiaf, was subsequently assassinated. The new prime minister named in July 1992 to succeed Ghozali was none other than Belaid Abdesselam, the architect of Boumedienne's heavy industry policy. Abdesselam had vigorously defended Algeria's infant industries from what he had perceived to be politically motivated efforts to sabotage them. He favored joint ventures in the petroleum sector but generally distrusted economic agents of the former colonial power, preferring American partners.

It should be noted, however, that the social compromise of the 1970s could not be fully reestablished. In those years the regime enjoyed a historic legitimacy which gave it political authority that was subsequently lost. The heavy industrial apparatus did not yet exist, much less burden the state's operating budget. Financial resources gained from oil and gas exports were earmarked for investments creating new jobs and thus facilitating a consensus among
different political and social forces. Times have changed. Moreover, the Algerian population has increased by two-thirds, further constraining state finances.

**Oil Strategy and the Rentier State**

To Ghozali and his successor, Belaid Abdesselam, the inefficiency of the public sector, with its low productivity of labor and equipment, was not a problem in and of itself if the state had the financial means to compensate for it (i.e., if the state had the financial resources to neutralize the devaluation of currency and the resultant loss of buying power). Inefficiency was not a problem unless the state failed to hide it by means of imports and the redistribution of wealth. This idea reflects the logic of a "rentier state" which faces a crisis every time the level of external resources falls. To survive, the rentier state needs external financial resources to keep its redistribution mechanisms oiled—mechanisms that constitute the basis of the social compromise: perks and favors for some, political wages for others, and subsidies for the whole population to reduce the prices of imported goods. The social struggles that have shaken Algeria since October 1988 are caused by a crisis in the rentier state, for such a state is characterized by a solidarity and an interconnectedness of interests from the summit to the base of the social pyramid, according to a redistributive logic, even if the redistribution is non-egalitarian.

I borrow the concept of rentier state from Hazem Beblawi and Guiacomo Luciani, whose analysis highlights the axiom that energy income is of external origin.[4] Since the energy income does not result from internal labor, the revenue is, in a sense, artificial. The GNP of oil-exporting countries does not correspond to their true development. The energy income is a transfer of a value created somewhere else. The state's revenue is primarily derived from rent—the profits of scarce and nonrenewable natural resources. The state legally owns oil and gas wells and employs a small labor force to extract and transport hydrocarbons. Societal obedience on the part of the majority can be secured through political distribution of the output. The scenario does not carry any innate possibility for substantive change. As a result of possible malfunctions in distribution, revolts may arise and lead to a change in regime but would not put an end to the underlying economy of the rentier state.

I wish to dwell on this notion of a distributive economy to clarify certain misunderstandings. The distributive economy is not one in which the state is to be engaged in policies of supporting impoverished social strata. It is not the welfare state which corrects inequalities of distribution by creating protective social nets, such as unemployment benefits, health care, education, and public transportation. In the distributive economy there is no free distribution of produce or benefits for indigent individuals. Distribution is even more unjust than in other systems of production. Such an economy is characterized by a fundamental lack of correspondence between production and distribution. Moreover, one should not think that the workers are the beneficiaries of the distributive economy. In fact, by distributing salaries that do not correspond to real production and are never devalued by inflation, the economy at the same time gives rise to enormous private fortunes which do not correspond to the creation of any new wealth. Bureaucratic mechanisms permit the emergence of artificial riches. They deregulate the parity of money and prices (depending on one's access to scarce, subsidized commodities) and cut off the national economy from dynamic international markets.

Distribution, in the rentier state, works its way through the economy in the form of deficits in the state companies: that is, the parceling out of rewards is not directly connected to
production. A company keeps operating not because it is financially efficient but because it performs a given sociopolitical role. It pays wages not because they are the monetary counterpart of new production but because they buy employees imported food products, some of which are subsidized and consequently would affect social instability. But the rentier state cannot be extinguished at the expense of those dependent on it. The economic reforms cannot succeed unless they create new jobs to keep employment at a socially and politically acceptable level. Economic reforms have failed thus far because those in charge of them have not been able to offer a credible alternative to the rentier state, particularly for the social groups that would have suffered the most. Absorbing the state companies' deficit is equivalent to lowering the level of employment and reducing consumer demand as advised by the IMF. However, reducing consumer demand in an underdeveloped country may result in starving whole categories of the population that are economically disadvantaged. This solution, moreover, carries with it the risks of political instability and anarchy. In Algeria, such a policy would benefit the Islamic Salvation Front (FIS), which could take power via the streets.

The availability of financial wealth from oil exports allows the social and political contradictions of the current system to be ignored. It makes contradictions bearable and even hides them. This raises the question whether energy rent is really capable of generating and promoting economic development and whether it is an advantage or a handicap. The question is worth asking if one compares Southeast Asian economies such as South Korea and Taiwan with oil-exporting countries such as Libya, Mexico, Iraq, and Algeria. In the second group, energy income has perverted and blocked development, because it did not have a true economic function. Energy rent is not used as an exchange value, integrated into the world economic system. It has been used as a usage value, a social wealth destroyed through consumption. This solution, moreover, carries with it the risks of political instability and anarchy. In Algeria, such a policy would benefit the Islamic Salvation Front (FIS), which could take power via the streets.

**Conclusion**

Algeria dramatically illustrates the perversion of economic development by energy income. Since its independence in 1962, it has reaffirmed its intention to apply its natural resources to development. Algeria did not use its oil revenues to import luxury products or to acquire military equipment beyond its defense needs. The bulk of the energy income was used to establish an industrial infrastructure which, unexpectedly, relied heavily on state subsidies. The social and political status quo depends on the balance between the state companies' deficits and the energy income. The model failed as soon as the energy income did not cover these deficits and their effects. Since its inception, industry in Algeria has generated an artificial consumer demand; artificial in that it did not have a value counterpart in production. Until the mid-1980s, this consumer demand was met with huge imports financed with the oil money. As world oil prices dropped in 1985-86 though, Algeria found itself unable to meet consumer demand.

As long as energy income is available, the temptation not to confront the implacable forces of the market, of production, and of competition will be great. The rentier state will wither only with the extinction of the energy income that supports it. In the economic realm, the subsidies made possible by energy income prevent the operation of market laws. In the political realm, this income obstructs democratization and the viability of political alternatives by making the population dependent on the rulers. And oil strategies, old and new, have been and will continue to be exclusively concerned with adjusting the state's financial requirements to the
legal means of exploiting petroleum products. In the past, it was necessary to adjust in conflict with foreign companies; to day it is necessary to adjust in concert with them.

Notes

[1] Petroleum Intelligence Weekly (March 9, 1992)


[3] Ibid. [Editors' note: The source was Belaid Abdesselam, Le gaz algérien: stratégies et enjeux (Algiers, 1990).]