المجلة العلمية
كلية الإدارة والإقتصاد

مجلة علمية سنوية محكمة

العدد الخامس
١٤١٥هـ - ١٩٩٤م

Evaluation Of Saudi Arabia's Development Planning: Direction And Implementation Problems

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Summary: Saudi Arabia's development has advanced along three dimensions: economic, social and institutional. In the economic field it meant advances in basic infrastructure and in economic diversification. In the social field, the development plans emphasuzed free education to upgrade skill levels. The institutional dimension has seen the establishment of new agencies to coordinate the expansion of the country's absortive capacity. In spite of the benefits achieved through planned development, key issues remain unresolved: industriial development lacks intersectoral linkages, suffers from acute idle capacity, and tends to use an inappropriate kind of technology; Agricultural output is high cost; the labor market is distorted by politically–oriented government intervention; the markets for inputs and products are artificial depending only on availability of government oil reveneus; there is a growing excess supply of university graduates relative to the capacity of industry to generate jobs to absorb them productively; the private sector continues to be overshadowed by the dominant role of the public sector in all economic activity; and planners have been unable to move closer to a consumption-production balance in both, the internal and the external sectors of the economy.

Evaluation Of Saudi Arabia's Development Planning: Direction And Implementation Problems

1 – Introduction

The objective of this work is to analyze the Saudi development planning experience and draw practical lessons useful for other Arabian Gulf countries with similar planning problems. The focus will be on the directions of planned development and on plan implementation problems.

Since the 1970's Saudi Arabia adopted a system of medium term conprehensive planning for economic and social development. Its purpose is to guide development in a coordinated and balanced direction. By giving preference to economic activities based on the free market system, the private sector has been given opportunities to participate in the development process.

During the fast two decades, basic physical infrastructure has been built and major improvements have been made in the provision of public services (health and education). The long term diversification of the economy was also taken into account, with sectoiral progress in Industry, Agriculture and Financial Services.

2 – The Need for Development Planning

As development proceeds through new phases, developing countries' economies gradually become more complex and diversified. Along with the increase in complexity, the need for economic planning becomes more important.

Economic planing has four major goals: first, to provide long term directional guidance for economic activity. Usually, indicative policy guidelines are given to the private sector, while more formal policies are set for government action. Second, to provide a consistent framework for

coordinated sectoral development overtime. Third, to allocate public expenditure so as to meet government economic and social goals. And fourth, to strengthen the economic management capabilities of planners in order to give adequate direction to the economy [1, Chapter 2]. In all, development planning is a combination of consistent sectoral development goals overtime, long term policy directions (indicative and formal), and policy instruments.

The preparation of a plan requires the specification of objectives for each dimension of development (economic, social and institutional) and designing the most useful measures to achieve them [2, Chapter 15]. The effective contribution of a plan to development depends on the degree of consistency of its sectoral objectives, the success in the practical implementation of its policies and programs, and its long term consistent linkage with future plans [3, pp. 1–12]. This last point emphasizes the need for a continiued process of follow-up, evaluation and revision of the whole planning process of a country.

3 – The Main Issues in the Development Process

The main issues of the Saudi development process are summarized in the interaction of four basis trends: the expansion of the institutional functions of the government , the financial contribution of the oil sector to development, the emphasis on planned economic and social development, and the response of non-oil productive sectors to the opportunities offered by development. The interaction of the four trends has been mutually reinforcing: the higher the level of oil revenues, the broader the scope for planning and institutional growth, and the greater the opportunities for non-oil sectors involvement in the process. The first three of those trends are under government control, and therefore, can be considered as planning instruments [4, Chapters 4–5].

There have been some difficulties in maintaining the momentum of such interaction overtime. These consist of resource disproportions and sectoral imbalances as development proceeded. For example, oil revenues have exceeded the physical spending capacity of development agencies; the supply of domestic resources, facilities and essential goods and services have lagged behind their demand; administrative inefficiencies have obstructed production schedules causing damaging delays throughout the economy.

Another characteristic of Saudi development has been limitations in the ability of planners to anticipate the timing, magnitude, and direction of

turning points in the process of development. The acute need to synchronize the different growth potentials of the three controllable planning variables has been highlighted during turning points from contraction to expansion (and vice versa) of economic activity. During these changes, growth rates have ben adjusted to correct the underlying imbalances in the economy. For instance, during the first half of the First Development Plan 1970-1975, Expenditure growth was reduced to correspond to the anticipated lower income flow. As oil revenues increased in the second half of the plan period, the rate of feasible economic growth was determined by the narrow base of domestic resources and the slow increase in the Saudi labor force. The huge infrastructure buildup during the Second Development Plan 1975–1980, aimed at maximizing absorptive capacity, would have not been possible without a great increase in the rate of foreign labor growth and other productive inputs. These increase in supply, helped in reducing domestic inflation rates. In contrast, the Third Development Plan 1980-1985 sougth to limit expatriate employment by targeting more moderate output growth rates and focusing on efficiency gains.

4 – Key Structural Economic Constraints

The key structural constraints determining the growth of the Saudi economy are summarized as follows: abundance of energy resources for export, dependence on oil exports to generate financial capital for development, an increasing reliance on imports for both consumer goods and capital eqquipment, a shortage of indigenous skilled manpower for development and heavy concentration of infrastructure development and economic management on the government. The search for solution to these structural constraints in turn, has generated major directions for Saudi development.

5 – Major Directions Of Development

The five-year plan of Saudi Arabia provide a long term vision and the conceptual framework for restructuring the country's productive resources, and expanding sectoral developoment.

Over the years, the planning emphasis has shifted in responce to policy and budget constraints. For instance, during parts of the second and third plans an increase in oil revenues made it possible to expand expenditures for infrastructure. During these years, the objectives of planning could be largrly gained through government-controlled instruments, especially fiscal spending. However, the future pattern of growth can not be managed by only

relying on government expenditures, due to the cyclical behaviour of the world oil market and its effect on Saudi oil revenues. Private enterprise must be activated as a new agent for economic diversification.

The private sector has been shifting its focus to production activities (industry and agriculture) that are less dependent on government expenditures. In the earlier years of develpment, private enterprise was largely oriented toward meeting demand (through trading and distribution activities) stimulated by a rapidly expanding public sector. Thus, it is the extent and direction of private sector investment activity that will increassingly influnce the future shape of the economy.

The sucessful mobilization of private sector financial assets into domestic investment and production, requires adjustment in the institutional relations betwen the government and the private sector. In response to these needs, the emphasis of the planning system is moving away from quantifiable targets for public spending and from particular initiatives by government agencies. Indicative guidance elements involving measures in suppport of the private sector are being stressed.

The major long term strategic goals of Saudi development have been formulated to mitigate the effect of structural constraints, and provide a foundation for future development efforts. Over the past two decades, these strategic goals have been revised and expanded. Currently, these strategic goals are as follows:

1. Developing human resources; increasing educational and technical training opprtunities to upgrade the productive skills of the local labor force.
2. Raising living standards and improving the quality of life of a growing population.
3. Developing and completing basic physical infrastructure: the second and third plans concentrated on building physical infrastructure, the later plans have emphasized maintenance of existing facilities.
4. Economic diversification; establishing other economic sectors to diversify income sources and reduce dependence on oil.
5. Strengthening the role of the private sector; in the early development plans the government played the leading role in stimulating economic activity. However, as the basic infrastructure stage of development nears completion, the need to engage the private sector in economic diversification has taken on greater emphasis.

6. Regional development; achieving balanced regional development by a fair distribution of government services and an efficient utilization of each region's natural resources.

A feature of Saudi development planning is maintaining Islamic values over time. The practical implication of these values for Saudi planning is its preference for free enterprise and social and economic justice. Government intervention is desirable in order to protect the weak from the injustices which unchecked market forces can lead to. Thus, Islamic values have been instrumental in fostering a mixed economy.

Within the broad context of these major long term goals, each plan has had its own particular focus, reflecting the stage of development and the resources available to the government (Table I).

Table I

Goals of the Development Plans

Objective	Plan*				
	I	II	III	IV	V
Human resource development	x	x	x	x	x
Increasing living standards		x	x	x	x
Infrastructure development		x	x		
Infrastructure projects completion				x	x
Infrastructure maintenance and efficient utilization			x	x	x
Economic diversification	x		x	x	x
Reducing oil dependence	x	x		x	x
Private sector development					x
Balanced regional development					x
High rate of economic growth	x	x			
Mineral resource development				x	x
GCC** economic/social linkages				x	x
Defense and security		x		x	x

*I: 1970-1975, II: 1975-1980, III: 1980-1985, IV: 1985-1990, V: 1990-1995.

**Gulf Cooperation Council (GCC): Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates, Oman.

Source: see note[1].

The first plan had a modest financial scale relative to subsiquent plans, but it introduced a conprehensive planning framework to undertake economic diversification, and the development of human resources.

The second plan was much more ambitious than the previous one, given the availability of greater oil revenues. Infrastructure expenditures increased substantially, with the government providing the majority of capital investments. The private sector remained neglected and concentrated on construction, trading and distribution activities. During the plan period, key state organizations were created to enhance institutional coordination in promoting industrial development.

The third plan concentrated on accelerating the construction of infrastructure, and on laying the foundations for a more diversified economy. Large scale public sector investments were initiated in capital intensive petrochemical industries to increase the local value added to crude oil. The private sector remained largely ineffective despite government incentives and funding to encourage private investments in Industry and Agriculture. The increased economic activity during the second and third plans was associated with a sharp increase in foreign labor, which highlighted the need to develop local human resources.

As major basic infrastructure projects neared completion, the stated emphasis of the fourth plan was on reinforcing the diversification goal of the third plan. The plan intended to place great importance on the private sector leading the diversification drive into Industry and Agriculture. Industry, because of its pontential dual role as saver and earner of foreign exchange, was to occupy the central place in the economic diversification strategy. However, with the collapse in world oil markets in the mid 1980's, government expenditures were redirected towards expanding oil-related industries and human resource development. The latter became a major goal of the plan. Other sectors that had depended on government spending (Construction, Transportation, and Trade) were expected to be much less dynamic.

The fifth plan, marks a new phase of development based on the progress achieved during the previous plans. Massive basic physical infrastructure projects have been largely completed, the institutional framework for development is in place, the process of economic diversification has been intiated, the foundations for private sector development have beeen laid, and the living standard has increased.

In response to this conditions, the focus of planning has shifted toward the following directions: placing more emphasis on the role of the private sector, and further developing the institutional framework for economic diversification. During the new planning stage, economic diversification will increasingly be influenced by the extent and direction of private sector investment. The size and distribution of government expenditures will be less important. Accordingly, the fifth plan emphasis on indicative planning for private enterprise, involves guidelines for its participation in planned total investment, institutional changes to facilitate the expansion of medium and long-term capital financing, trade policies to support the expansion of exports, and facilitating the identification of industrial investment opportunities.

6 – Plan Implementation Experience

6/1 First Development Plan (1970-1975)[2]

The first plan was modest in size (SR 78 billion), and prepared in the prospect of severe financial coinstraints. But revenues began to improve during the second part of the plan's period, allowing for a policy of accilerating plan implementation.

Government expenditure concentrated on developing public utilities, and on improving government manpower development services. The most important feature of the first plan period was the change in the degree of control over the country's oil resources. Foreign multinationals, which held oil concessions, were asked to share a greater proportion of revenue from oil exports with the Saudi government.

Increased oil revenues had positive effects on increasing output in the non-oil economy. The nature and direction of these changes was reflected in the movements of the domestic labor force and in the sectoral allocation of foreign manpower. A decline in agricultural employment was accompanied by a significant employment increase in Construction, Trade, Transpsortation, and government services which absorbed most of the growth in the labor force.

6/2 Second Development Plant (1975–1980)[3]

During the second plan, government expenditure reached sr 684 billion, more than eight times larger than in the first plan (table II). It was the second plan which established many of the essential features of Saudi development: the leading role of the government and the weight of its contributiuon to capital formation, the importance of infrastructural development, and the associated role of the construction industry. One of the major features with long–lasting future effects was the emergence of manpower supply and demand porblems. Foreign labor was needed due to the acute shortage of local manpower. Manpower problems became equivalent in magnitude to the serious issues of absorptive capacity and domestic inflation.

Table II

Planned and Actual Development Expenditure
(SR billions)

Development category**	Plan*								
	I		II		III		IV		V
	P	A	P	A	P	A	P	A	P
Economic resources	2.7	8.8	92.1	198.6	261.8	120.4	130.7	71.4	56.5
Human resources	7.4	24.0	80.1	171.8	129.6	124.3	135.3	114.2	139.9
Health/Social services	1.9	6.2	33.2	71.1	61.2	69.6	89.7	59.3	63.9
Transport/ Communications	7.5	24.3	40.3	86.9	143.0	139.1	76.9	50.6	52.6
Municipalities/ Housing	4.6	14.9	72.7	156.1	104.3	108.9	67.4	46.0	44.8
Total	24.1	78.2	318.4	684.5	699.9	562.3	500.0	341.5	357.7

P: planned, A: actual.
Economic resources: Water, Agriculture, Petroleum, Minerals, Electricity, Industry, Construction, and Commerce.
Human resources: Manpower, Training, Education, Cultural affairs, Information services.
Health/social services: Health, Social security, Youth welfare, Judicial system.
Transport/Communications: Transport (roads, ports, airports, railroads), Communications (telecommunications, postal service).

Source: see note[1].

At the time of the second plan, the country's financial strength had become much more favourable. While there were few financial constraints to development, economic growth was limited by a variety of infrastructural and manpower constraints. Accordingly, the issues of absorptive capacity and domestic inflation, became dominant in the economic management of the country. Overall, real annual economic growth averaged 6.8%, while the non-oil sector grew at an average annual rate of 17.6% (table III).

Table III

Planned and Actual Growth Rates of Real Gross Domestic Product by Economic Sector

(%)

Sector	Plan*									
	I		II		III		IV		V	1970-89
	P	A	P	A	P	A	P	A	P	A
Producing sectors	13.8	7.2	9.7	21.9	15.8	0.8	8.4	1.0	7.0	8.6
Agriculture	4.6	3.7	4.0	13.9	5.3	6.8	6.0	2.6	7.0	9.1
Mining	23.3	20.1	15.0	0.0	9.7	0.0	3.0	3.7	4.0	8.8
Industry	14.0	9.9	14.0	26.6	18.8	3.6	10.5	-1.8	7.5	8.1
Electricity, Gas & Water	13.2	10.8	15.0	32.0	29.4	-14.8	5.0	2.0	6.9	8.0
Service sectors	11.1	15.8	13.8	16.7	6.0	-0.6	1.4	-0.5	2.7	7.5
Construction	10.4	25.5	15.0	13.6	-2.4	-4.5	-2.8	-0.8	3.8	7.6
Trade	12.8	18.1	15.0	29.6	8.4	0.0	2.5	-0.4	3.0	11.4
Transport/ Communications	12.9	17.8	15.0	5.3	12.9	0.5	5.0	-0.5	3.2	5.4
Real Estate	8.6	9.5	6.0	26.8	na	-2.3	0.0	-1.1	2.8	7.1
Financial Services	11.0	8.4	15.0	25.9	7.2	-3.4	9.0	-1.1	6.6	6.4
Community Services	10.0	14.9	14.0	11.8	2.9	2.7	3.5	0.0	1.7	7.6
Government Services	11.2	9.7	12.9	10.8	7.1	2.9	0.0	0.1	0.8	6.2
Total Non-oil sectors	11.7	14.0	13.4	17.6	6.1	-0.3	2.9	-0.1	3.7	7.8
Oil sectors	9.1	10.8	9.7	-7.9	1.3	-4.8	6.3	1.5	2.9	0.7
Crude oil & Natural Gas	9.1	12.1	10.0	-9.7	1.3	-6.8	6.3	1.4	2.2	-0.1
Petroleum refining	9.1	0.0	5.0	7.4	na	3.7	na	1.5	6.0	4.4
GDP	9.8	12.2	10.2	6.8	3.2	-1.4	4.0	0.3	3.2	4.8

* P: planned, A: actual, na: not available.

Source: see note[1]

A major challenge during the plan's period was domestic inflation, which reached high levels midway through the implementation of the plan. Expenditure reduction was not the response to control inflationary pressures but alleviating supply shortages of non-traded goods and services. Shortages were important in housing, electricity, and water supply. Also, there were bottlenecks in trasportation and the institutions of learning. Thus, the high levels of market demand for non-traded goods and services were partially met by increased supplies and an expansion in the country's absorptive capacity. To protect living standards from domestic inflation, price subsidies for essential goods and social security benefits were increased.

Over the plan timeframe, the growth of output came largely from producing sectors (annual growth averaged 21.9%). The concentration of private enterprise on Trade, Real State, Financial Services and Transportation activities, together with the government's emphasis on construction of infrastructure, contributed to the growth of service sectors. But these are not producing sectors like Industry and Agirculture, and could not become long term potential alternatives to oil.

During the plan period, the largest contribution to investmment was made by the government sector, and was concentrated on infrastructure development (Table IV). In the absence of alternative investment opportunities and given the increased level of liquidity in the economy, considerable speculative investment was made in land and property, together with substantial increases in holdings of foreign assests.

6/3 Third Development Plan (1980-1985)[4]

Subsequent to strong develpment expenditure during the second plan, the third plan was prepared at a time when the need for consolidation was becoming most urgent. As a result of the high growth in non-oil sectors during the previous plan period, the country emerged with an increased absorptive capacity for converting its financial resources into real domestic assets.

The third plan moved in three directions. It continued building infrastructure, it stressed the need for more output-oriented investment by the public, the Industrial and the Agricultural sectors, and it emphasized manpower development. Increased oil revenues in the early years of the plan

(1979-1980), and the subsequent sharp decline in later years, had a significant impact on the scale and the annual distributioon of government expenditures.

Table IV

Investment and Gross Domestic Product

(%)

Item	Year				
	1970	1975	1980	1985	1989
Investment	100.0	100.0	100.0	100.0	100.0
Oil	20.7	16.1	10.2	11.9	12.6
Non-oil	79.3	83.9	89.8	88.1	87.4
Government	41.4	52.3	62.8	44.2	35.9
Private Non-oil	37.9	31.6	27.0	43.9	51.5
GDP	100.0	100.0	100.0	100.0	100.0
Oil GDP	62.3	73.5	66.3	31.3	27.1
Non-oil GDP	37.7	26.5	33.7	68.7	72.9
Ratios (%)					
Investment/GDP	12.8	21.3	26.8	21.3	20.7
Investment/Oil GDP	20.5	29.0	40.4	55.6	77.3
Investment/Non-oil GDP	33.9	80.5	79.7	34.4	28.4

Source: see note[1]

During the first half of the plan period, the emphasis on infrastructural development coupled with developments in the oil market, pointed beyond the reality that was being constructed physically: they opend up the possibiity of continue building basic infrastructure at a faster rate than had been originally conceived. A sizeable influx of foreign labor was the logical consequence.

The plan target growth for the non-oil economy was set at 6.1% (about half of that planned in each of the two previous plans), and the planned growth rate of the foreign labor force was 0.2%. Moderate output growth would thus restrict increases in foreign manpower. However, the foreign labor grew by over 1.1 million during the plan (or 11.7% annually), which was

substantially greater than planned, and raised the ratio of non-Saudi to Saudi workers from 1.03 to 1.49. The need for a moderate rate of growth was emphasized by considerations relating to world demand for crude oil, domestic inflation, and possible supply bottlenecks of non- traded goods and services.

With the increased in oil revenues and the influx of foreign labor, domestic demand for non-traded goods and services rose, steimulating private investment in commercial and distributional activities. Also, some private capital with substantial financial backing from public funds, was invested in Industry and Agriculture.

The second half of the plan period, was marked by the disappearance of the favorable conditions in the international oil market, that provided revenues well above anticipated levels. Thus, the stabilization in world oil demand caused a sudden downturn in the country's revenue position. This was subsequently reflected in lower levels of new government investment and in a decline in economic growth rates.

During the first three development plans, the share of private sector investment stayed relatively constant. It accounted, on the average, for a third of total investment (Table IV). This fact reflected the unwillingness of private enterprise to play a greater role in the economy. Namely, its aversion towards undertaking more risky ventures in Industry and Agriculture, and move away from trading and distribution.

6/4 Fourth Development Plan (1985–1990)[5]

By the mid 1980's Saudi development planning entered the phase where it was recognized that the world market for crude oil is subjected to cyclical movements. Thus, to reduce the resulting uncertainty in planning paramaters, the government decided to expand its oil-related industries (oil refining and petrochemicals). The importance of the private sector and the market economy was also reinforced by efforts to develop Industry and Agriculture.

At the time of the fourth plan preparation, it was realized that government revenues would be substantially less than during the third plan. As a result, an austere approach had to be adopted in financing development expenditures. Government development expenditure was set at SR 500

billion, which was about 11% below the actual expenditure level for the third plan (Table II). Nonetheless, a more vigorous private sector was expected to result in continuing expansion of the non-oil economy.

Despite conservative expectations, the further weakening of world oil markets in the early years of the plan, caused government revenues to fall short of their anticipated levels. Consequently, expenditures were reduced to 31% below the plan target. This experience highlighted the importance of the long term goals of economic diversification and reduction of dependence on oil revenues.

The shortfall in government expenditure prevented the plan's growth target from being achieved. Investment suffered a major decline, particularly in the government sector (37%). This reflected the cutback in project expenditures as a result of both, budgetary restrictions and the completion of major basic infrastructure projects.

Despite the economic downturn, the oil refining sector (including petrochemicals) expanded, resulting in major export of these products to world markets. Underlying structural economic constraints, were revealed through the dynamic growth of this sector: a renewed dependence on oil exports to generate financial capital for development, representing a major setback for the goal of economic diversification. In fact, during the first three development plans, economic growth had remained greatly dependent on the high rate of total investment relative to non-oil Gross Domestic Product (GDP). This situation was reversed starting with the fourth plan, where the investment to oil GDP ratio reached 77% in 1989 (Table IV).

6/5 Fifth Development Plan (1990-1995)[6]

With the previous gains in basic infrastructure, the fifth plan points to the reinforcing of the initial stage of economic diversification to create new sources of income[7]. It also involves meeting manpower needs, the establishment of new capital markets, and opening new export markets. Development expenditure is set at SR 357 billioins.

The focus of the plan, is not increasing expenditure but enhancing efficiency and raising the output of local labor. The plan is also greared towards the private sector assuming a leading role in the areas of Industry, Agriculture, and foreign trade. Also, increased private sector participation in

the ownership of public services (power generation, communications and transportation) will be facilitated. Despite privatization, the state will continue to provide basic services in defence, education, health, and additional basic infrastructure needs as they arise.

The inception of the first plan took place at a time when the concept of planning was regarded as incompatible with a free market economy. However, the growth of the economy since then shows that both approches can work together in a mixed economy. In real terms, the economy in 1989 (SR 47 billions) more than doubled relative to what it was in 1970, while the non-oil economy (SR 34 billions) has quadrupled in size.

7 – Summary of Progress under Planned Development

7/1 Economic growth

Overall real economic growth has been of a declining nature overtime. From a remarkable 12% annuallly during the first plan, growth declined systematically overertime reaching only 0.3% in the fourth plan. Despite sharp declines in oil sector GDP in recent years, a higher rate of growth in Non-oil sectors has contributed to the attainment of an average annual growth rate in real GDP of 4.8% over 1970-89 (Table III). Oil wealth has been used to finance imports and domestic investment for building a production capability. Imports increased at an average rate of 20% per year. The ratio of imports to GDP went from 14% in 1970 to 30% in 1989. The share of food imports declined from 36% to 24% over the same time frame (Table V). Gross domestic investment also increased, representing over 20% of GDP in 1989 form 12% in 1970. While the share of government investment in total investment dropped by almost half to 36% in 1989 relative to the beginning of the third plan, the share of private sector investment almost doubled to 52% during the same time period (Table IV). This adjustment in the structure of investment, reflects the shift of emphasis from government infrastructural building activity to increasing private sector involvement in production activities.

Table V

Structure of Imports and Exports by Economy Category

(%)

Category	Year				
	1970	1975	1980	1985	1989
Imports	100.0	100.0	100.0	100.0	100.0
Food	36.2	20.9	20.1	23.2	24.4
Intermediate inputs	20.5	26.2	23.5	25.7	30.5
Capital goods	43.3	52.9	56.4	51.1	45.1
Imports/GDP	14.1	9.4	25.3	24.3	29.5
Exports	100.0	100.0	100.0	100.0	100.0
Oil	99.8	99.3	99.2	94.5	90.5
Manufactures	0.2	0.7	0.8	5.5	9.5

Source: see note[1]

7/2 Physical infrastructure

Development of physical infrastructure has been one of the most important results of Saudi planning to date. There has been substantial expansion in power generation, water supply, communications and transport (table VI).

7/3 Agricultural development

Agricultural development was aimed primarily at ensuring food security and reducing dependence on imports of basic food commodities. The demand for a number of farm and dairy products has been met increasingly by domestic production (Table VII). As a result, there has been a decline in the share of food imports, and a shift towards imports of capital goods and inputs for Agriculture and Industry. The resulting real growth in agricultural output (9% annually over 1970-1989) has been achieved at a high cost. Namely, in the form of extensive government incentives, such as free distribution of land with water supplies, interest-free loans, subsidies on agricultural inputs and farm machinery, suport prices for farm output, and

subsidized low electricity and water rates. In spite of high costs, Agriculture has been the fastest growing producing sector, becoming an increasingly important emerging activity. It accounted for 11% of real GDP in 1989 versus 5% in 1970.

Table VI

Physical Infrastructure Development

Sector	Year*				
	1970	1975	1980	1985	1989
Electricity					
Installed generating capacity (mW)	418	1,398	7,032	16,706	15,746
Number of subscribers (1,000)	216	352	872	1,758	2,261
Water					
Number of desalination plants	3	5	8	12	27
Production capacity (m. gallons)	5.1	12.7	47.2	413.2	692.0
Number of Dams	14	19	41	161	180
Storage capacity (m. cu. mts.)	60.3	65.1	172.5	370.9	475.0
Communications					
Exchange lines (m)	0.08	0.13	0.59	1.21	1,413
Telephone lines (m)	0.03	0.09	0.32	0.92	1.50
Telex lines (1,000)	-	0.5	8.5	16.9	14.2
Transport					
Paved roads (1,000 km)	8.0	11.2	20.2	29.7	32.0
Registered Vehicles (1,000)	59	444	1,998	4,132	2,163
Ports					
Number of berths	-	27	101	143	163
Handling capacity (1,000 tons)	-	6,102	37,800	52,000	68,152

*m : millions

Source: see note[1]

7/4 Industrial development

Industry is seen as the foundation upon which future economic development can be erected, even when oil resources have been depleted. A feature of the early Saudi industrialization is the concentration of basic facilities in two major petrochemical complexes (Jubail on the east coast and Yanbu on the West coast). Other smaller industrial cities have also been started. Again, similarly to the case of Agriculture, most of the non-oil related nascent industries are viable because of extensive government incentives. These include industrial sites at nominal rents with all infrastructural services, low cost loans, and exemption from custom duties on machinery and materials. Foreign investment has been encouraged so as to promote technology transfer. Incentives given include unrestricted repatriation of profits and a 10-year tax holiday.

The government has not favored protectionism as a policy for industrialization and has promoted the formation of competitive industries. However, protective tariffs have been granted to some industries, and the sector suffers from acute systematic idle capacity[8] leading to high-cost operations.

In spite of the goal of diversification away from oil, the bulk of industry is concentrated on state-owned hydrocarbon-based activities. To create opportunities for increased private sector participation, a limited degree of privatization is taking place in some state enterprises. Overall, Non-oil industry's contribution to real GDP remains very small (4.7% in 1989 versus 2.6% in 1970), although its real growth has been dynamic (8% for the same period, Table III). Table VII gives further information on industrial development.

Table VII

Agricultural and Industrial Development

Item	Year				
	1970	1975	1980	1985	1989
Agriculture					
Output (1,000 tons)	-	884	756	1,444	942
Vegetables	307	458	470	783	809
Fruits	213	288	266	2,191	3,718
Cereals	156	206	349	372	479
Milk					
Cultivated land (1,000 ha.)	7.0	40.6	129.2	748.0	854.0
Loans granted by Saudi Arabian Agricultural Bank					
Amount (SR billions)	-	0.14	1.12	2.32	na
Number of loans	-	16,251	19,782	14,746	na
Agricultural subsidies (SR billions)	-	0.07	0.58	1.47	na
Industry					
Factories in operation					
number	207	479	1,401	1,817	1,826
capital (SR billions)	2.4	6.1	42.0	55.7	97.4
workers (1,000)	9.0	25.2	96.1	118.5	138.3

na : not available

Source: see note[1]

Health care and education are provided free of charge. In education, the average annual rate of increase in enrollments in each level during 1970–1989, has greatly outstripped population growth of 4.5%. The number of university's graduates has increased more than 17 times since 1970, while the increase for secondary graduates has been more than 19 times. Technical education is the less developed and smallest of all education levels. In 1989, graduates from this level represented 1% of total graduates

from all levels of education, and enrollment was only 0.50% of total enrollments (Table VIII). Given the very fast increase in the overall numbner of graduates, the policy towards education should emphasize quality rather than quantity.

Regarding human resource development, the crucial issue is whether or not private industry can create employment opportunities to meet the rapidly increasingly supply of university graduates. Being a small nascent sector which favors capital–intensive technology to reduce manpower requirements, it is unlikely to be in capacity to absorb a substantial number of graduates each year. Unless it can be demonstrated that other sectors of the economy will develop fast enough to provide employment opportunities for those graduates, their number should be reduced. A complementary action would be to further expand the technical centers, to absorb a greater number of secondary school graduates. This would increase the number of technical manpower for industry, which is in very short supply, and diminish the pressure on the higher education system.

8 – Future Directions of Saudi development Planning

The main direction of future Saudi development planning will be focussing on measure to accelerate economic diversification. Planning has contributed in reducing the role of oil in the economy from 62% in 1970 to 27% in 1989 (Table IV).

The increasing participation of the private sector in economic activity, will become more vital in the future process of economic diversification. As the competitive environment characterizing a free market economy improves, the private sector must upgrade its managerial, productive and marketing capabilities to remain profitable. Also, the government will create opportunities for an increasing private sector role in areas where the former has traditionally taken the lead (utilities, transport and some government services). Encouraging the development of the banking sector, financial markets, and business services, will support private sector development.

Table VIII

Social Development

Sector	Year				
	1970	1975	1980	1985	1989
Education					
Number of students (1,000)					
elementary education	397	634	862	862	1,517
secondary education	16	42	93	93	79.8
higher education	7	19	48	48	27.6
technical education	0.1	0.9	1.6	1.6	9.2
Number of graduates (1,000)					
elementary education	29.1	59.5	93.8	109.0	172.1
secondary education	2.8	7.2	15.5	30.5	55.8
higher education	0.8	1.9	4.6	11.1	14.2
technical education	0.1	0.9	1.6	2.7	4.4
Health					
Hospitals	74	98	109	176	247
Dispensaries	591	782	1,185	1,821	2,088
Population per hospital bed	685	630	530	370	282
Population per physician	5,300	2,450	1,420	800	548

Source: see note[1]

Over the last two decades, the country has been dependent on foreign technology. For the next state of development, the transition should be from purchasing technology to expanding local research and development capabilities.

Another future direction in planning is the upgrading of the Saudi labor force skill level. Human resource development will accelerate through a continuing focus on education and training. The emphasis will be on improving technical and managerial skills, to facilitate the gradual replacement of non-Saudi's in those position.

Broadening the linkages with the world economy is another future planning direction. Broader tradiing relations and greater foreign investment

in the economy provide channels for the transfer of technology, marketing information, and business management techniques. Closer integration with the world economy should be facilitated through the expansion of non-oil exsports.

The major responsibility of planning is to ensure the consistency of the development process. This means consistency in both, the directionm of development (set by the strategic goals), and in the functions of development, whereby new programs reduce the structural weaknesses of the economy [14, Chapter 5]. The Saudi experience has shown that for plans to be consistent, they have to maintain a sound balance between the coutry's own resource base and its related absorptive capacity on the one hand, and its greater international purchasing power on the other. With the help of the latter, it is possible to expand the resource base (for example by importing foreign labor) so as to increase absorptive capacity and accelerate economic growth. However, a higher rate of economic growth based on extensive foreign labor use is only desirable when it speeds up the building of development infrastructure, which is the foundation for future expansion. When the essential infrastructure is completed, economic growth led by low skilled labor-intensive activities such as construction, will become less important. At this stage, a new emphasis is required to give priority to economic diversification rather than growth. Accordingly, future plans should emphasize the utilization of foreign labor for more human capital-intensive development programs.

9 – Conclusions

With the implementation of the fifth plan, Saudi Arabia will have completed 25 years of development planning. Development has been conceived as a concerted advance along three dimensions: economic, social and institutional. In the economic field it meant advances in infrastructure and in basic industries, as well as in Agriculture. The oil wealth has been used to build the infrastructure to provide the foundation for economic diversification. In the social field, the development plans have emphasized free education to upgrade skills levels. The institutional dimension has seen the creation of new agencies to coordinate expansion in the absorptive capacity of the economy.

In spite of the benefits achieved through planned development, key issues remain unresolved. Non-oil industrial development has been arbitrary, incipient and lacking intersectoral linkages. There is substantial idle capacity and a tendency to use an inappropriate kind of technology. Given the factor endowment of the country, industrial output growth is not limited by capital availability but by labor. Thus, a concentration on capital-intensive technology is likely to become a constraint for increased industrial output over the long term [15]. In addition, the disparity in the cost of local versus foreign manpower due to distortions in labor markets, will continue encouraging the hiring of foreign labor. This, in turn, limits the replacement of foreign workers[9]. As to Agriculture, the emerging Agricultural sector produces high cost output. The apparent prosperity of the oil boom may have masked those key issues. In fact, the government has been the paymaster of a development effort that implied little risk to the private sector. The government offered incentives and commitments to purchase the hidden costs of developing Industry and Agriculture. Much of the observed expansion in non-oil sectors, has been the result of heavy subsidization of inputs (paid for by oil revenues), and the creation of artificial markets for the output (i.e., bought by oil revenues). If oil revenues disappeared, it is doubtful that much of the observed expansion in Industry and Agriculture could cointinue for long [17].

As to education and manpower development, education should be linked to the needs of Industry. A greater number of secondary school graduates should be redirected away from the university system towards technical and vocational training. This will provide the needed kind of manpower to manufacturing.

The role of the public sector continues to be dominant in the economy despite privatization initiatives. State ownership of the major source of revenue has meant that the state bears the responsibility for planning and executing development in all sectors. This, in turn, overshadows the role of the private sector.

Finally, the management of the internal (non-traded goods) and external (traded goods) sectors of economy has been poor. Planners have been unable to move closer to a production-consumption balance in each sector[10]. For instance, during periods of strong government expenditure, an excess of consmption over production of non-oil traded goods is generated.

The supply shortage has been met by imports[11]. To achieve external balance, expenditure-switching and expenditure-reducing policies are needed. But Saudi planners did not implement such policies.

An expenditure-switching policy (i.e., currency devaluation) would have increased prices of traded goods (in local currency terms) relative to non-traded goods. As higher-priced imports decreased, consumption would have switched to non–traded goods helping to restore external balance. In addition, an expenditure–reduction policy (i.e., lower fiscal expenditure or the use of taxes) would have curtailed excess consumption for traded goods. Both kinds of policies would have checked consumption. On the other hand, higher relative prices would have bidded the resources away from the non–traded goods sector into the traded goods sector, to increase production of the latter. The decrease in consumption and the increase in production, would have helped in bringing about external balance.

In the non–traded goods sector, production would have decreased, generating a shortage and domestic inflation. Relatively higher domestic prices would have partially reversed the previous resource transfer, until production of non–traded goods increased to meet consumption levels. The resources transfer would continue until internal balance was achieved. Again, an expenditure–reduction policy would have been required to avoid an exaggerated increase in domestic prices, leading to another potential round of external imbalances.

NOTE

1. Data were obtained from the following documents: [5], [6], [7], [8], [9], [10], [11], [12].
2. The material in this section draws on [5, Chapter 2],[6, Chapter 1], [7, Chapter 1.]
3. The material in this section draws on [5, Chapters 1–2], [7, Chapter 1].
4. The material in this section draws on [7, Chapters 1–2].
5. The material in this section draws on [7, Chapter 2], [8, Chapter 2].
6. The material in this section draws on [8, pp. xv–xvi].
7. Producing sectors along with Financial Services, are planned to be the fastest growing over 1990-1995: Industry (7.5%), Agriculture (7%),

Electricity, Gas and Water (6.9%), Financial and Business Services (6.6%). However, after four development plans, foreign exchange generation sources remain restricted exclusively to oil exports, which accounted for 90% of total exports in 1989 (Table V). This heavy concentration of exports on a single product, would make it costly for Saudi Arabia to develop non-oil sectors with the potential to reduce the share of oil exports in total export, to let's say 50% in the long run.

8. Idle capacity has been estimated at 47% for the whole sector, see [13].
9. For a comprehensive view of the effect of distortions on factor markets see [16, pp. 40-64].
10. For a detailed analysis of internal and external balance and the associated policies see [18, pp. 7-51], [19, pp. 168-186], [20, pp.193-211].
11. As a result of the dependence on oil, and the rapid growth of consumption patterns unrelated to non-traded (domestic) production, Saudi Arabia has found itself more and more dependent on foreign commodity imports. In fact, the linkage between the economy and the world economy has grown significantly overtime. More precisely, if we use as the dependenmcy ratio total imports plus exports as a percentage of government expenditure over GDP, this rose from 50% in 1970 to over 200% in 1987. For an additional discussion see [17].

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