CHAPTER SEVEN

AN OVERALL STUDY OF THE PROBLEMS OF INDUSTRIAL DEVELOPMENT

7.1 Introduction:

During the two decades of 60's and 70's, the country's experience with industrialization was rich and varied. Industrialization and modernization had come to be equated by Iranians with the material benefits and high standards of living enjoyed by North American and Western European nations (1). However, this impressive economic progress was accompanied by a number of problems like improper industrial location, lack of skilled manpower and inadequate infrastructure. All of these are indeed very vital for the successful implementation of a development plan in the country. We discuss in detail each of these problems in relation to the industrialisation programme and examine to what extent they put the development clock backwards.

7.2 Locational problems:

One of the most touching problems of industrialization was location of industry. Most of the manufacturing establishments tended to be located in or around Tehran. For example, in 1966, more than 40% of industrial units were located in Tehran alone. The reasons for this concentration were that until recently, the provincial cities lacked adequate water, electricity, and electronic telephones. The roads and rail roads, transportation network of the country
as well as communication system were oriented towards Tehran. All roads led to Tehran, so much so that merchandise was often shipped to Tehran from one province to enter an adjacent province. Above all, the administrative concentration in Tehran was such that no important decision could be made at the provincial levels. Consequently, industrialists had to come frequently to Tehran to consult and deal with authorities and this meant being away from their desk for days. Moreover, few cities outside Tehran had foreign schools, or sufficient, suitable housing, etc. for foreigners. These and other factors have been responsible for the overconcentration of manufacturing industries in Tehran. However, efforts were made for decentralisation of industry and in particular moving industry away from Tehran. The government used some tax reduction scheme to locate new manufacturing facilities or to undertake a major expansion of existing facilities beyond 120 kilometers away from Tehran. This resulted in emergence of several industrial growth poles within the country. Particularly after the establishment of government departments on regional basis organisations such as the plan organisation have established regional offices, and industrial development zones have been established in different areas.

Initially, the Iranian industrialists adopted a market-oriented approach towards location of their industries. Tehran had only 10% of population, nevertheless 50% of the aggregate purchasing power of the country was concentrated
there. And as the number of immigrants from other provinces coming to Tehran in search of employment rose, the market was larger for industrial goods. However, the government tried to break this approach and encourage resource development approach. As far as raw material is concerned, Tehran has the least qualification to be the industrial centre of Iran as all the mineral and agricultural raw materials are found in such distant provinces as Kerman, Khuzistan, Khorasan, Azarbaijan.

In this regard, attempts were made to establish in the late 1960's, several industrial centres in other parts of the country that are rich in mineral resources. For example, the steel industry concentrated in areas adjacent to Isfahan and Ahwaz, the electronic industry around Shiraz, the heavy engineering industry in Tabriz and Arak, the latter being one of the locations developed as a major, nonferrous metal industry centre along with Kerman and Bandar-Abbas.

In this connection, to carry out further decentralization of industry, public utilities in other cities were improved. Direct dialing was introduced. Telex lines and other facilities between Tehran and other provincial cities and outside world, were bettered. Cheap electricity was provided. But the scale of improvements did not match the scale of requirements when industrial activity increased after 1974.
Inspite of these and other efforts, there was a 40% concentration in Tehran which created serious imbalances in the distribution of urban services with very important implications in respect of policies directed to the whole question of industrialization. This problem still continues to exist and could well be a grave threat to a smooth process of industrial reconstruction unless accorded immediate priority in terms of solution.

7.3 Manpower and managerial problems:

There are two types of bottlenecks relating to labour viz (a) the problem of shortage of skilled labour required to carry out any skilled job and (b) the problem of labour productivity.

7.3.1 Shortage of skilled labour:

The critical shortages of skilled workers, foreman and technicians, impended the growth of manufacturing industry. Shortages of skilled workers and technicians constituted the main obstacle to higher rates of production, obliging them to recruit labour from the mass of unskilled job applicants who received on the job training informally to be called skilled workers later. Shortage of manpower affected industries in another way. Some industrialists who wanted to instal advanced type of machinery and improve production levels were disappointed as highly skilled labour that could operate such machinery was not easily available. Though under the original fifth plan there was an apprehension that sufficient
jobs would not be created, with the revised fifth plan, the position reversed. As against a total demand of 2.1 million workers, the labour market could supply only 1.3 million (2). It was said that 80% of the shortfall constituted skilled and unskilled labour required in industries and construction.

The gap between demand and supply of labour force was filled by foreigners. By mid 1975, there were 35000 foreigners living in Tehran alone. Mostly Europeans acting as technicians, managers, advisers of foreign company representatives, including a sizeable portion connected with defence and defence-related contracts were found in large number. They were willing to pay almost any price for scarce accommodation, subsidised by companies hopeful of high profits in the economy. The country was held to ransom by its shortage of skilled manpower. It was expensive to attract expatriate skills to work in a harsh environment expenditurewise in the defence field some American technicians were costing up to $150,000 a year to work in Iran (3). It cost Iran an average $9000 per month per head to maintain American defence personnel in 1975 and by then there were some 20,000 defence and defence related personnel.

The shortage of skilled workers which resulted in recruiting foreign labourers, on the one hand and increase in wages, on the other, caused an obstacle to higher rates of production.
7.3.2 Low productivity:

Productivity is defined as manufacturing output per unit of labour input. Level of productivity declined at an average annual rate of 4.1% over the 1973-82 period. Output declined at the rate of 0.5% p.a. while employment rose at the rate of 3.7% p.a. during the same period. Between 1980 and 1982, productivity declined however more rapidly by 8.4% a year (4) than during the 1975-80 period when it was 2.3%, as shown in Table 7.1.

**TABLE 7.1**

OUTPUT PER WORKER AND EARNINGS PER WORKER IN MANUFACTURING INDUSTRY

<table>
<thead>
<tr>
<th>Years</th>
<th>Annual output per worker (in 000 rials)</th>
<th>Annual earning per worker</th>
<th>Weekly earning per worker</th>
<th>2/1 x 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>4248.0</td>
<td>467,280</td>
<td>8986.1</td>
<td>11.0</td>
</tr>
<tr>
<td>1976</td>
<td>4420.8</td>
<td>539,136</td>
<td>10368.0</td>
<td>12.19</td>
</tr>
<tr>
<td>1977</td>
<td>4111.2</td>
<td>527,616</td>
<td>10146.4</td>
<td>12.18</td>
</tr>
<tr>
<td>1978</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1979</td>
<td>3787.2</td>
<td>1,152,360</td>
<td>22160.7</td>
<td>30.4</td>
</tr>
<tr>
<td>1980</td>
<td>3787.2</td>
<td>1,087,458</td>
<td>20913.2</td>
<td>28.7</td>
</tr>
<tr>
<td>1981</td>
<td>37440</td>
<td>851,120</td>
<td>18290.7</td>
<td>25.4</td>
</tr>
<tr>
<td>1982</td>
<td>31,752</td>
<td>826,416</td>
<td>15892.6</td>
<td>26.0</td>
</tr>
</tbody>
</table>

**SOURCE:** Journal of economic cooperation among Islamic countries.
As it is apparent from the above table productivity has declined between 1975-82. Annual earning also declined particularly during the year 1980-82.

7.4 Infrastructure bottlenecks:

The problem of infrastructure bottlenecks; i.e., transportation, port, power and communication was one of the vital elements in holding back the industrialization programme. Many targets set for infrastructure development were also highly unrealistic. The difference between targets and achievements kept problems of inadequate infrastructure within tolerable limits for some time. But as we would presently see such inadequacies created an explosive situation where, in 1973, with oil boom and steep rise in demand, goods produced and imported as well choked the several infrastructure facilities in the economy.

7.4.1 - Transportation:

Transportation covering road, railway and air transport was one of the major shortcomings of development plans which hindered the industrial development of the nation.

Transportation infrastructure was ill-prepared for the oil boom. Transport system included a road length of only 52000 kilometers, 5300 kilometers of railways and 14 airports (5). The fact that the country has no inland waterways plus the limited rail road systems made road transport the most
important means of long range bulk transport. Nevertheless, road system of the country is strongly influenced by its topography which is characterized by rugged mountain ranges in the North and large desert regions in the centre. With the exception of the western parts of the country in which majority of the nation's population lives and which has highly developed roads, other parts of the country had no improved roads as such. Generally, roads were too small and poorly maintained, many of which become impossible during winter. Table 7.2 shows the position in respect of transportation in the country.
## TABLE 7.2
Road Transportation Development since 1970

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Paved</td>
<td>11,061</td>
<td>18,720</td>
<td>36,600</td>
</tr>
<tr>
<td>Gravel</td>
<td>18,926</td>
<td>21,320</td>
<td>31,500</td>
</tr>
<tr>
<td>Dirt</td>
<td>8,183</td>
<td>11,960</td>
<td>11,500</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38,170</td>
<td>52,000</td>
<td>79,600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vehicle population (000 units)</th>
<th>1970</th>
<th>1975</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger cars</td>
<td>203.6</td>
<td>646.4</td>
<td>1340.0</td>
</tr>
<tr>
<td>Trucks</td>
<td>43.0</td>
<td>176.5</td>
<td>517.4</td>
</tr>
<tr>
<td>Buses</td>
<td>41.3</td>
<td>62.0</td>
<td>95.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>257.9</td>
<td>884.9</td>
<td>1953.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local manufacturing output (000 units)</th>
<th>1970</th>
<th>1975</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger cars</td>
<td>21.8</td>
<td>97.9</td>
<td>263.0</td>
</tr>
<tr>
<td>Trucks</td>
<td>5.4</td>
<td>30.4</td>
<td>82.5</td>
</tr>
<tr>
<td>Buses</td>
<td>2.1</td>
<td>3.4</td>
<td>8.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>29.3</td>
<td>131.7</td>
<td>353.5</td>
</tr>
</tbody>
</table>

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<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>7,924</td>
<td>31,717</td>
<td>49,525</td>
</tr>
</tbody>
</table>

**SOURCE:** 1) Bank Markazi Iran. (2) Ministry of Road and Transport. (3) Official Government Budgets. (4) Vehicle Population: through Iranian Auto Registration Bureau.
As indicated in the above table, in 1975 there were 52,000 km of roads, 36% of which was concrete or asphalt paved while 41% was gravel surfaced. The remainder consisted of unimproved roads. Furthermore, the amount of goods received in Iran in 1974 suddenly far exceeded the capacity of Iran's trucks to distribute the goods. The problem of acute shortage of trucks was overcome with the buying of new ones doubling the number in a year by 1975. However, this, in turn, created shortage of drivers and spare parts - shortage of drivers necessitating import of drivers immediately.

Similarly, the rail network, with just over 4500 km of track, was severely limited. Iran's rail road, constructed by Reza Shah between 1927 and 1939 from the Persian Gulf to Tehran, 900 miles over more than 4000 bridges and through 24 tunnels, was yet to respond to the criticism of foreign advisors who found, shortly after World War II, that "methods and operating procedures are peculiar to this railroad" (6).

7.4.2 - Ports:

Port handling equipment was insufficient and poorly maintained. Maintenance in the southern parts with their high humidity and scorching summer temperatures was difficult and machinery had frequent break down. Because of the inclement climate it was difficult to find regular labour to operate a continuous shift system in the four hottest summer months. The southern ports handled over 80 per cent of all maritime imports with insufficient berthing space and very
limited warehousing. All this was compounded by an elephantine bureaucracy which could require up to 28 signatures to clear goods from customs (7). Import licences were frequently the responsibility of more than one Ministry. Hence, the boom in volume of imports which increased by 39% in 1974, put even greater pressure on the already strained port infrastructure. A flood of ships to Iran created delays up to five months with ships waiting in harbour to unload, and demurrage added tremendously to costs, as did losses of perishable goods.

7.4.3 - Power:

Power was another infrastructural bottleneck. Iran, unlike many oil producing and exporting countries which have large resources of energy to run industries, was using to a large extent hydroelectric and thermal energy which were far more expensive than other sources.

TABLE 7.3

CONSUMPTION LEVEL OF ELECTRICITY
(million KW)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>4,048</td>
<td>5,800</td>
<td>5,897</td>
<td>6,110</td>
<td>6,488</td>
<td>8,631</td>
</tr>
<tr>
<td>Household</td>
<td>1,423</td>
<td>2,176</td>
<td>3,238</td>
<td>4,702</td>
<td>7,350</td>
<td>10,069</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,585</td>
<td>2,432</td>
<td>2,888</td>
<td>3,773</td>
<td>5,999</td>
<td>6,285</td>
</tr>
<tr>
<td>Agriculture</td>
<td>213</td>
<td>397</td>
<td>426</td>
<td>518</td>
<td>1,158</td>
<td>1,848</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>617</td>
<td>814</td>
<td>758</td>
<td>1,343</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,269</td>
<td>10,805</td>
<td>13,066</td>
<td>15,917</td>
<td>21,753</td>
<td>28,176</td>
</tr>
</tbody>
</table>

SOURCE: Bank Markazi Iran, Annual Report and Balance Sheet, various issues.
The consumption level of electricity between the eleven years from 1973-84, increased gradually.

The total electricity generation under the Ministry of Energy was 10.4 billion KW/h in 1975, out of which the industrial sector consumed roughly 5.2 billion KW/h in addition to the 2.8 billion KW/h produced by private sector (8). This was far less than the new requirements placed on it, particularly in Tehran in 1973 due to the fact that power generating capacity was not sufficient to supply all users simultaneously, series of scheduled burnouts and an average complete loss of up to 4 working hours a day was carried out. By the end of 1974, power failures became common in large cities and industrial areas. The result was to threaten the continuity and efficiency of production and distribution. In fact, by mid-1975, an acute countrywide energy shortage was the most pressing concern of the government. Power blackouts, power failures and insufficient generating capacity disrupted production schedules in industry and business as well as the everyday life of urban workers.

Largely because of shortages linked to the underdevelopment of the nation's infrastructure, by May 1977 Iranian industry was working at about 60 percent of capacity - (61 percent is the case of textiles, 46 percent in bricks, 96 percent in cement, 90 percent in sugar, 51 percent in automobiles and 32 percent in tractors). Blackouts, inadequate transport facilities, and shortage of building
materials (particularly cement) all contributed to this situation. For instance, the country's sole aluminium plant, at Arak, experienced interruptions in its supply of electricity 760 times for a total of 33000 minutes (9) between March 1976 and March 1977. The plant "whose main factor input was electricity had access to a maximum 35 MW instead of the promised 115 MW. As a result, production declined by 43 percent during the industrial boom year of 1974 - a year when the demand for aluminium was increasing at an unprecedented pace. The company not only lost millions itself in money terms but had disrupted the production schedules of its major buyers. During the same period, it was found that power failures were a major cause of a 45% fall in output (10) at the country's principal machine tools factory also located at Arak.

Notwithstanding the several problems associated with use of electricity such as high cost of production, frequent shortage of supplies etc and consequent rise in production costs and decline in the levels of production, the authorities did not realise producing on a large scale and popularising use of a cheaper and more easily available alternative source - oil by-products. Thus, whereas electricity consumption for industrial use rose from 7269 million Killowatts in 1973 to 28176 million killowatts in 1984, consumption of oil by-products by industries showed a modest rise from 378 thousand barrels per day to 770 thousand barrels per day during 1975-84 period (11).
7.4.4 - Communication:

Communication on the other hand was in no way better than transportation services. Towards the end of the 1960's, pressure on the internal post and local telephone systems of the country was growing at an increasing rate. As a result, post offices were constructed or expanded in cities and towns in large number and some vehicles were provided for mail delivery. Telephone and telegraph lines were repaired and copper wire circuits substituted for old iron wire ones between some major cities. Automatic telephone exchanges were established in cities such as Isfahan, Tabriz, Meshad, Rezaiyeh and Resht.

However, the postal system of the country was not at all automated and whilst plans for automation of the eight main postal centres in the country were included in the fifth plan allocations, training requirements and unavailability of staff made it impossible to achieve this project and despite efforts made, the telecommunication facilities continued to lag far behind the rapidly expanding needs of the country.

7.5 Impact of the war on the economy:

In September, 1980, Iraqi forces attacked Iran's oil installations and initial retaliation by Iran gave rise to a full scale war between Iran and Iraq which continued till 1988. As a result, Iranian economy experienced a wide range of intensifying problems. Already the economy was bogged...
down by mounting difficulties due to uncertainties about limits of private ownership, lack of clear direction to economic programme as also inefficient use of resources. In addition to these, when war erupted, oil production and export was disrupted and the country which was greatly dependent on this source for its economic performance found herself in a serious problem. Limit to oil exports in the first few years of the war on the one hand and meeting the war expenses on the other, threatened the economy seriously. The government estimated that the economic cost of the war for the first five years was 23,000 billion (12) rials. This amount was nearly equal to GDP of Iran during the period. Apart from tremendous human suffering, the war had other impact on the economy. The petrochemical complex that was being built by Mitsui at Bandar Khomeini was halted, import of essential goods were reduced to minimum. As a result of intensifying imports restriction, a boom in black market of all sorts of goods arose. The most obvious black market was in foreign exchange, where the black market exchange rate was 16 times (13) the official rate (14).

The overvalued exchange rate was another major problem which adversely affected the economy of the Islamic republic. Foreign exchange had never sold in black market before. During the year 1979, mostly prompted by a tendency towards flight of capital outside Iran, there was a sudden increase in demand for foreign exchange and the newly seated government was unwilling to meet this demand. One way to end
the unsatisfied demand was, as the government decided, rationing of the available foreign exchange. As usual, along with rationing there emerged a black market. With an excess demand over supply, the value of rial in black market declined very roughly, from 70 rials per dollar in 1979, to about 150 in 1981, 250 in 1982, 350 in 1983 and 550 in 1984, and it kept receding in later years (15). (It was 1900 in 1987). This overvaluation of exchange rate created many problems for the economy. A real assessment of the economy’s performance was also not possible with the overvalued exchange rate.

Black markets also existed for essentially all imports, since indigenous supplies were insufficient to meet demand at the government set prices.

These obstacles as seen above climaxed the economy’s crises and provoked serious wastage of resources. However, some of these difficulties which the country faces even now are by no means unique to Iran. Many of them are found normally in the third world as a whole; and what the Iranian case provides is a clear instance of how other problems remain when the most pressing problem, an acute shortage of capital, is removed. The countries most analogous with Iran are those other oil producing states which also have substantial populations and land areas and are, therefore, at least candidates for long-term economic development. In these countries, providing capital is not a problem. On the contrary, when we look to their economy, we see that abundant
capital unassociated with other complementary factors creates problems. This exhaustive enquiry into the industrialization process of Iran reflects the relative unpreparedness of the country for injection of large sums of money. Immediately after the 1973 oil price rise, the government expanded its plan allocation by 90 percent, to 4699 billion rials and proclaimed an optimistic perspective in which Iran would within two decades become a major industrialized power and catch up with the advanced capitalist countries. For the first two years of the plan till 1975 the country had even a surplus of foreign exchange and began to invest and lend abroad or spend it in ways which did not contribute to developing productive capabilities of Iran. The most obvious examples of these are arms expenditure and services. Arms expenditure had taken up a consistently higher percentage of available funds than industry and despite some indirect benefits (infrastructure) to the economy, must be seen as a net drain on development resources of the country.

7.6 Conclusion:

To sum up, it appears that the development process faltered because the authorities failed to evolve strategies suitable for transformation of the economy. But the oil revenues, she did succeed in finding the resources necessary for massive industrialisation. Thus, while in the late 1960’s and 1970’s Iran was characterised by a capital surplus skill shortage economy, at the end of the 70’s, she had
turned into a capital scarce, unskilled labour abundant economy. Achievements recorded till the mid 1970's were mainly attributable to oil revenues. As a result of rising oil revenues, both the public and private sector activities reached higher levels of equilibrium. In this, the government seems to have played a major role, especially in the early 1970's, judged by the oil revenue policy that was adopted at the time. Oil revenue increases acted as a springboard with which to leap into an era of modernisation. But unfortunately, the economy's forward leap was characterised by a set of erroneous calculations and endless misadventures on the part of the government. Both the private and public sector activities, therefore, suffered serious set backs. This dead end which the economy reached by 1976 marked the completion of a full circle of development process in the country.

In fact the downswing seems to have occurred faster than the movement up the path of development. That it was not impossible to prevent such a downswing becomes amply clear when we examine the role that was assigned to the public and private sectors, the degree of complementarity between the two, compatibility of policies concerning the two sectos and the direction in which each of the sectors moved in accordance with oil revenue flows and also policies affecting industrialisation. These and related issues are highlighted in the next chapter.
Notes and References:


14. The official rate in 1985 was 75 rials for a dollar.


CHAPTER EIGHT
ROLE OF GOVERNMENT IN ENCOURAGING PRIVATE AND PUBLIC SECTORS

8.1 Introduction

There has been an increasing tendency among LDCs in modern times to evolve an economic system where both private and public sectors coexist. This is because of the fact that both under a free enterprise and socialist systems, there are certain drawbacks that would prevent a smooth transformation of an underdeveloped economy. The extent to which each of the two sectors is allowed to develop however depends on the overall policy direction pursued in each LDC. Within the confines set for each of these sectors, they are expected to contribute their maximum share to overall development. Their contribution however depends on the role that the two sectors are expected to play, policies adopted for coordination between them and conditions under which they are to operate in an economy.

We will examine in this chapter how the two sectors played a role in industrialisation of the country and in what way policy measures promoted or hindered their growth. In view of the fact that development of the two sectors depends to a large extent on consistent efforts to streamline policies concerning their areas of operation, the level of coordination and the efficacy of change in policies pursued from time to time in respect of them, we propose to look into some of these aspects with reference to the two sectors to evolve a picture of industrialisation.
8.2 Growth under both the sectors

It was in the 1930s, during Reza Shah's period, that the earliest attempts were made in Iran to develop a public sector, while that for the private sector came up in the 1940s. But the two sectors were active only from the latter half of 1950s when the economy was buoyant until the mid 1970s when the economy was turbulent. Public sector on the one hand suffered with frequent policy changes by the government whereas the private sector on the other suffered due to uncertainties and risks.

In respect of the private sector, the first two plans contained no reference to it and private entrepreneurs hence largely lacked a proper direction. Again, the third plan made no efforts for the sector's involvement except a brief reference to forecasts. It was thus during the fourth plan that for the first time private sector component was adequately reflected with definite targets and levels of investment.

The most important feature of industrialisation process was the emergence and rapid and sustained growth of this private sector in the 1950s. In 1946, the government indicated through policy pronouncement its intent to induct private sector into the economy. In the second plan, the government emphasised its policy towards this sector as follows: (a) Public sector investments would be limited to basic infrastructure provision (b) certain fields where
public sector had a monopoly with public interest in view and in those where private sector hesitated to venture because investment was heavy and gestation period very long. When the second plan was launched public sector had begun to emerge on the industrial map of the country.

Before 1962, when land reforms were implemented, there was no bourgeoisie in Iran committed to industrial development and private sector activity mostly confined to small trade and commerce in the bazars. Government that supported feudal interests during the 1950s, changed its policy and promoted capitalism. This was effected through land reforms whereby landlords with surplus land received compensation for parting with such surplus which was a new source of investment and the government forced landlords to invest them in industries. In 1970, based on the share participation scheme, landlords who invested earlier in industries could lay hands on additional funds for improvements of their industries through sale proceeds of shares made over to workers.

By 1974, there were 45 families controlling 85% of the country's firms with a turnover of more than 10 million rials. Apart from these there were the foreign entrepreneurs who also played a significant role in industrialisation. However, in 1953, through enactment of a law, government encouraged private foreign investment in other fields. This was entitled "the Law Concerning Attraction and Protection of
Foreign Investment (CAPFI). This law not only guaranteed legal protection of foreign investment but also extended the rights, facilities, etc., granted to local entrepreneurs also to investors from outside. Further, they could repatriate profits in the same currency which they invested.

The accumulated inflow of foreign equity investments and loans under the law amounted for more than 31 billion rials as at Aug. 1977.

8.3 Role of government in promoting the two sectors

Having so far seen how the two sectors evolved over the years, we turn to an examination of measures and steps taken up by the government to strengthen the two sectors. Both sectors have operated in the two categories of industries viz., traditional and modern to adopt the usual classification of industries in Iran.

Industries are usually classified into heavy, medium and small. But in Iran, industries are classified in a different way. The Ministry of Industries and Mines and also the Central Bank of the country have their own classification of industries grouped as under: (i) traditional (ii) modern.

The first category included industries such as textiles, carpet weaving, handicrafts, food processing which consisted of sugar, dry fruits and dates, canned food, and cigarettes, pharmaceuticals, wood based industry, building materials and paper products. Under the second category of modern industry
were included metal and metallurgical industries, machine tools and industrial equipment, automobile industry, electrical and electronics machinery, tyre and tube industries, steel, chemical and petrochemicals.

In very general terms the modern industry subsector reflected high levels of investment in several units, of techniques and of production. On the other hand a major part of traditional industries by 1972 came to assume an equally important position in the economy. We elaborate these points in the following paragraphs.

In terms of our intended analysis of measures or steps taken up by the government we confine ourselves to only two traditional industries namely carpet weaving and handicrafts both of which are largely featured by thousands of small units employing less than 10 labour because of special measures adopted in this sphere.

8.3.1 Small and traditional industries

By 1972, there were 219000 small industrial units, defined as units employing less than 10 persons (2). They accounted for 1/3 of the total labour force. Mainly, carpet weaving, handicrafts, smithy, wood and leather based industries operating throughout the economy accounted for a major portion of such labour force. While some of them produced manufactured goods for the upper classes, many small units were engaged in the production of goods demanded by lower income groups as well. Although, artisans in these
small units are small in number compared to those in the modern sector, they represented substantial reserve of skills.

It is important to note that the progress of small units was jeopardised to a large extent by the trend towards modernisation. The ever expanding civil service and other large industrial units attracted most of the Iranian youth. The establishment of industrial units in the formal sector that was encouraged by the government has rendered the informal sector more vulnerable to problems as its share of the market for its products declined.

Notwithstanding these obstacles, carpet weaving centres which are predominant among small industries numbered 120,000, 60% of them operating in rural areas. Many of them in these areas produce low value carpet that accounts for 44 percent of total output and 30% of the total value of carpets. The more expensive ones come from Tehran, Tabiz, Isfahan, Kashan, Karman and Nain. In the 1960s, carpets accounted for a major portion of non oil exports with 24% which was reduced to 20% in the 1970s. In 1967, exports accounted for 67% of the total output of carpets in Iran while it rose to 80% in the 1970s. By 1978, output was expected to reach 11 million square meters (3). The share of state owned units formed a minor part of total production, despite government efforts. The government owned units were to set examples of high quality and authenticity of Iranian
carpets thereby preserving the nation's prestige. Government also encouraged the establishment of cooperatives towards the same objective.

Carpet and handicrafts are both labour intensive and nearly 800,000 people were employed in them. Further 1.5 million people depended on them partially for their livelihood.

In the mid 1960s, Iranian handicrafts centres affiliated to the Ministry of Economy were established with the idea of developing traditional handicrafts in Iran. These centres functioned as a source of technical aid to artisans, as supplier of raw materials and as an organiser of workshops and productive cooperatives. It also prepared model projects for improvement in the quality of products besides undertaking overseas marketing. More than 100 technical exports guided these various activities of the centre. The centre extended loan facilities of about 100 million rials to cooperatives and assisted them in buying raw materials worth over 300 million rials (4). It also established several regional guidance centres, introduced several thousand new designs and established or modernised many units.

The Industrial Guarantee Fund was established in 1961 to provide capital for small units. During the initial stages, the Fund's progress was very negligible because administrative expenses exceeded returns on investment.
After 1968, when it was brought under the control of Bank Omran, the Fund's activities accelerated and in 1970, 71 and 72, loans granted amounted to respectively 177 million rials, 152 million rials and 128 million rials (5). These loans were essentially for fixed capital in handicrafts, hotels, restaurants, dry cleaning, etc. On loans upto three million rials, interest charged was 8% beyond that it was 10%. Since its authority is centralised in Tehran and also because the Fund adopted commercial bank policies, very little was achieved in the direction of encouraging small entrepreneurs.

Because of their simple techniques and use of simple tools and abundance of skill, handicrafts have served as a part time source of income in Iran to many people. They helped improve the living standards of people and thus served as a means to achieve a more equitable income distribution. Besides, they have also meant diversification of exports. Even though in course of time, handicrafts may virtually occupy a minor place in the economy when industrialisation has sufficiently progressed, handicrafts have always served as a convenient tool to supplement the income of the relatively poor artisans. Their annual turnover stood at 5 to 6 billion rials.

Government established a regional development bank in Ahwaz to provide credit facilities to small entrepreneurs on easy terms such as exemption of collateral, security, longer maturity of loans and low interest rates. Even with the several steps taken by the authorities there were gaps
between policy formulation and implementation which was sought to be removed with greater decentralisation, more effective system of checks and balances and a commitment to alleviate the problems of entrepreneurs as for raw material etc. Such gaps in the past arose because of the necessity on the part of entrepreneurs to secure operations and commencement permits, even though this is not legally stipulated, on which depends the securing of tax incentives, credit duty exemption on imports, etc, which caused red tapeism discouraging entrepreneurs.

Import concessions and duty exemptions have rarely benefited small entrepreneurs who are ignorant of procedures, of foreign markets and who lack resources obliging them to buy their import requirements domestically paying exhorbitant prices.

Apart from these special efforts directed to small units in the traditional industry category, government also took certain steps in relation to industrialisation in both the categories - traditional and modern. In the following paragraphs we attempt an assessment of the major ones and see what impact they had on industrial development.

8.3.2 Promotional measures

An incentive scheme was evolved with the intention of promoting a healthy industrial structure. The scheme consisted of rebates etc as detailed below:
1. 15 percent of taxable income of corporation is waived for companies whose shares are quoted on the stock exchange and meet other conditions.

2. Company profits are generally exempted from taxation for five years provided that they are located at least 120,000 kilometers from Tehran.

3. Exemptions apply not only to company profits but also to the shareholders personal tax liability on dividends.

4. Losses incurred in any year can be carried over a number of years and recouped from subsequent profits.

5. Profits reinvested in new facilities or derived from export earnings of the business are exempted from taxation in line with the efforts made toward decentralisation of Tehran area. Plants that are moved completely from this region and relocated in other regions of Iran are entitled to receive tax exemption up to 12 years (6).

8.3.3 Concentration of industrial units

An adverse consequence of incentives was the increasing concentration of industries in urban areas. In fact, this trend could be treated as a central feature of Iran's industrialisation process as one observes data on the following Table.
<table>
<thead>
<tr>
<th></th>
<th>Total workers</th>
<th>Industrial workers</th>
<th>Workers as % of total industrial workers</th>
<th>Total establishment</th>
<th>Industrial establishment</th>
<th>Industrial establishment as % of total establishments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tehran</td>
<td>532788</td>
<td>214188</td>
<td>33.05</td>
<td>125185</td>
<td>44002</td>
<td>26.80</td>
</tr>
<tr>
<td>Isfahan</td>
<td>137652</td>
<td>85079</td>
<td>13.12</td>
<td>49113</td>
<td>24113</td>
<td>14.69</td>
</tr>
<tr>
<td>Central Province.</td>
<td>114694</td>
<td>65463</td>
<td>10.10</td>
<td>39230</td>
<td>21555</td>
<td>13.13</td>
</tr>
<tr>
<td>East Azarbayejan</td>
<td>113658</td>
<td>61088</td>
<td>9.43</td>
<td>38115</td>
<td>14140</td>
<td>8.61</td>
</tr>
<tr>
<td>Khuzestan</td>
<td>112232</td>
<td>40451</td>
<td>6.24</td>
<td>24833</td>
<td>7583</td>
<td>4.62</td>
</tr>
<tr>
<td>Khorasan</td>
<td>100015</td>
<td>46008</td>
<td>7.09</td>
<td>32741</td>
<td>12764</td>
<td>7.78</td>
</tr>
<tr>
<td>Others</td>
<td>335127</td>
<td>135808</td>
<td>20.97</td>
<td>120096</td>
<td>39958</td>
<td>24.37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1446166</strong></td>
<td><strong>648085</strong></td>
<td><strong>100.00</strong></td>
<td><strong>429313</strong></td>
<td><strong>164115</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Map Showing Industrial Establishments and Industrial Workers in Iran

- ■ 10,000 Industrial Establishments
- ● 1,000,000 Industrial Workers
It can be seen that Tehran tops the list with 26.80 percent of the total number of industries followed by Isfahan with 14.69%, the Central Province with 13.13% and East Azarbyjan with 8.61% etc. Tehran also stands first in terms of employment concentration accounting for 33.25% of labour force with the other three provinces mentioned above respectively accounting for 13.12%, 10.10% and 9.42%. The urban formal sector has a 20 to 30% concentration each of total labour force and total value of output.

Tehran is now a beehive of urban economic activities a mixture of different sociocultural life and a centre of administrative and political authorities. Its industrial capacity accounted for 51% of all manufactured goods.

In the 1970s, 22% of all labour employed constituted Tehran's labour force and any improvement we notice in later years was due to steps taken by government to reduce industrial concentration. This trend seems to have escalated to other urban centres because between 1971 and 1975, all such centres witnessed the establishment of more and more industrial units thus unleashing forces of higher concentrations.

To a large extent, this degree of concentration is attributable to incentive scheme that proved more hazardous than helpful. Also, the scheme itself was not strengthened with other essential measures except one i.e., institutional promotion. In certain ways even this measure promoted
industrial concentration. We elaborate these points after discussing the institutional arrangements.

8.3.4 Financial assistant to industrial sector

Reza Shah, the then ruler of Iran, encouraged private enterprise in the 1920s by facilitating imports required by it as also through protection. In 1946, the Shah established the Industrial and Mining Development Bank to operate enterprises run formerly by various ministries, to encourage new industries, to carry out general banking functions and to extend technical assistance to private industries.

During the second plan, industrial investment by the private sector prompted the government to limit itself to industries where private enterprise did not come forth. For although they had greater competence technically, public sector units were not efficiently managed looked at commercially. Again, under the third plan, key role was assigned to private sector. However, a detailed plan in respect of this sector was not evolved in this period.

By 1954, 20 chambers of commerce spread over 20 districts of Iran were recognised by the government and were shouldered with the responsibility of transmitting opinion of private business and of commercial and industrial communities to various ministries. They were partially funded by the government. A separate chamber of industry was established by 1955 with which the experience of private entrepreneurs
and their opinions and judgements were expected to influence the planning process.

New industrial projects prior to 1957 were taken up by private entrepreneurs with their savings supplemented by fixed capital assistance from government and working capital assistance by banks. In 1957 and 1959 government established respectively the Industrial Credit Bank and the Industrial and Mining Development Bank of Iran. These banks mobilise private savings and direct them to industrial enterprises. They are also expected to attract foreign investment and technical and managerial skills.

The IMDBI's original capital was 23.6 million 1/8 being from Iranian and foreign bankers. Iranian government provided nearly half the total capital including interest free loans from the central bank. In addition, the plan organisation made over substantial amount to be managed by IMDBI for a fixed fee.

These two institutions and the Fund referred to earlier were supported by the government with soft loans and their borrowing guaranteed.

In 1973, a Development and Investment Bank of Iran was established to strengthen the institutional framework for industrial finance. This was set up in the private sector in response to the ever increasing needs of industrial sector.
These institutions not only helped realisation of the country's industrial goals of enhanced investment activity through their dynamism, managerial skill etc. but also were responsible for framing of industrial policies from time to time.

Simultaneously government sought to promote industrial activity through ISI and through laws for protection of private investment, both domestic and foreign, in Iran. Pursuing the general lines of government policy, various tax laws were geared to promote establishment and expansion of industries. More liberal depreciation allowance was proposed and incentives made available for undistributed profit investment. Tax holidays were made available to industries approved by the ministry and to others located in areas that were underdeveloped. As a result of these and other concessions, between 1955 and 1965 the number of industries (excluding oil and related ones, tobacco and utilities) rose from 1300 to 10247 in Iran and the number of employed, eighteen fold to about 13900 during the same period. These measures greatly assisted establishment of industries in several provinces as reflected by large industrial investments in them.

After the 1973 oil boom, a number of banks came into existence, majority of them being joint ventures. Out of nine, eight were joint ventures. More than 50 foreign banks had branches or collaborations with these banks. For instance in IMDBI, there were 22 foreign participants which
included 3 American, 6 British, 2 Dutch, 2 German, 4 Japanese, 3 Italian and 2 French banks. Private sector activity thus showed two distinct phases of development.

First with land reforms there was centralisation of capital for industrial development and second financial help extended by banks after the mid 1960s especially that fastened continuous accumulation of capital.

Both these measures incentives and institutional finance may be considered most attractive among several others that may exist in any country. Incentives mean a direct saving via reduced payment made over to government by entrepreneurs while financial assistance directly puts money into their hands. And in Iran both these measures proved more beneficial if entrepreneurs located industries in Tehran itself. On the contrary, they would suffer the greatest disadvantage of not being able to avail of the facilities if industries were located outside Tehran. These are elaborated in the following paragraphs.

8.3.5 - Geographical centralization

Tehran, is still the focal point of political, social and economic life in Iran. Of the 19 provinces and 3 territories in Iran, none has its own parliament or constitution. Governors were appointed by the central government from Tehran with the approval of the Shah, and municipalities relied upon the central government for most of their revenues.
Tehran, which encompasses 14 percent of Iran’s population, also has reaped a disproportionate amount of the advantages of development. Tehran accounts for 51 percent of Iran’s manufactured goods, 30 percent of the industrial enterprises, 60 percent of all wages and salaries, 33 percent of total investment, 35 percent of the country’s gross national product, 38 percent of all institutions of higher education, 52 percent of all students in higher education, 46 percent of all doctors, 76 percent of all cars and 100 percent of all banks (7), insurance companies, and other fiduciary institutions, all of which have their headquarters in Tehran. Hence, new enterprises tended to join the mainstream of activities in Tehran.

This was because under the incentive scheme an entrepreneur locating industries away from Tehran could face greater hardships in terms of absence of facilities and a lack of market for his products in the provinces which meant that sales profits and hence concession were very low even with a 12 year tax concession. As against this, an industrialist in Tehran would, notwithstanding tax concession only for five years, still benefited to a larger extent in terms of urban facilities an ever enlarging market for products, higher sales, higher profit margin plus tax concessions.

This paradoxical situation arose because these promotional measures were not supplemented with development
of facilities including location of financial institutions outside Tehran.

While these promotional measures failed to produce a sound and systematically developed industrial network, certain other regulatory measures introduced over the years were largely used by the authorities to wield political power. Consequently such regulatory measures reinforced the negative effects that rose out of promotional measures. This would be clear on an examination of each of these regulatory measures.

8.3.6 - Regulatory measures

8.3.6.1 Licensing

A system of licensing was introduced in the 1950s more as a persuasive measure than as a coercive one, for, those who chose to possess licence were also entitled to concessions such as protection, import tariff exemptions for capital and intermediate goods, tax holidays, low interest loans and concessional rate for water, power, land or low rent on municipal buildings, export incentives, etc. and in the case of foreign entrepreneurs low tariff barriers on imports. The aims or goals of licensing such as control over use of capital resources, level of foreign investment, size, number and location of industries etc. remained to a large extent unfulfilled.
Licensing requirements did not specify the manner in which proposals were treated as eligible or ineligible nor were there experts who could go into the merits of industrial proposals.

The licensing law was criticised as being discriminatory against small investors and also against some large investors whose applications were not treated fairly. The licensing law was a mechanism which was used in practice to gain political control entrepreneurs, it thus encouraged a monopoly tendency that supported the government.

8.3.6.2 - Import - export laws

Import export laws were introduced with the aim of curtailing exports when domestic supply fell short of demand and to facilitate imports when domestic production failed to meet domestic demand. But these laws were amended so frequently that hardly anybody understood either the purpose behind such changes or implication thereof except that it was carried out to promote vested interest or for political ends.

8.3.6.3 - Share participation scheme

The scheme was intended to have a phased implementation starting from 1972 when it was launched. Under the scheme 99% of the shares of state owned production units except key industries and 49% of shares of all other production units was to be sold to workers, farmers, and even the general publics.
By 1976, the first batch of 151 companies out of a total of 320 made their first offer of shares. (8)

While this law was intended to promote workers' participation in management, in reality it was used by the Shah to gain popularity and to strengthen the control of the royal family on industries; for, shares offered by companies that were not immediately bought were to be purchased by a trust for sale later to members of public. Thus out of the shares offered by the 151 companies by 1977 only 20% had been distributed (9). The other companies were able to negotiate an indefinite postponement of participation in the scheme. 49% of the shares that were taken away from industries meant a reduction in the power of industrialists which was immediately to enhance the power of the royal family via the trust.

A more dangerous implication of the entire scheme was loss of business confidence and a certain degree of uncertainty in business field resulting in gradual conversion of fixed asset into cash and the ultimate flight of capital from the country.

8.3.6.4 - Antiprofiteering Law

This law was strictly enforced in the year 1975 with the view to protect consumer interests. The law stipulated that, unless otherwise justified, prices of all commodities were to be lowered to their June 1973 level. The law enforcement personnel were drawn mostly from fresh university graduates.
who were supporters of the government policies. They lacked knowledge about business but were invested with lot of power to supervise enforcement of the law. In many cases such power was abused and the law in its most blatant form resulted in the arrest of prominent businessman who apparently failed to see eye to eye with the government policies. That the law in itself was used more as a political weapon than as a means to give effect to consumer protection becomes clear when we realise that it did not stipulate what a fair or normal profit was.

8.3.6.5 - Labour Legislation

Labour legislation was introduced in 1959 and was amended from time to time. This legislation was applicable to all industrial units employing more than ten workers. Through this legislation, government was to confer certain rights to workers in terms of formation of trade unions, minimum wages, bonus, increase in wages, damages against dismissal adjudged unfair by an arbitration board etc.

It is very well known that these laws, like the other measures noted above, were used against employers sometimes. Many a time, however, it conferred favours to workers with which support of the working class was ensured. The fact that, under this law, trade union activity in an industry was not permitted unless it had government’s consent and accepted supervision by the Ministry of Labour may be deemed as a potential source of mobilising workers at party rallies. In
reality also government often used this legislation as a convenient lever to negotiate continued labour support for favours conferred when disputes arose between labourers and industrialists.

8.3.7 - Public sector scenario:

We now turn to an assessment of steps taken to promote public sector industries in the country. Although our observations here chiefly relate to this sector, at times they are equally applicable to the private sector as well.

Industrial activity of the state involving heavy investment in industrial plants such as steel and machine tools and encouraging import substituting modern consumer durables such as motor cars and home appliances, a petrochemical industry etc were accorded priority - Judged by the fact that no clearcut strategy existed in respect of their development it appeared that pseudo-modernist whims and aspirations, a trend indicating industrialism and self aggrandizement on the part of Shah were all that these priorities reflected.

In economic terms public sector projects often looked more glamorous and least beneficial. The case of a steel plant that was viewed as a symbol of economic progress was expected to earn $600 million in foreign exchange by 1970 whereas actually it yielded only $4 million (10). Even the machinery and equipment supplied to Iran are supposed to have
been old or used ones. Similarly, the machine tools factory at Tabriz was using only 10% of its total capacity — the reasons being that there was a lack of technical and managerial staff and secondly there was enormous difficulty in inducing people to work in a large city like Tabriz when they preferred Teheran — both indicating urban concentration.

The petrochemical industry that was developed in the 1960s by the NIOC was thought of as a major replacement in the future to petrochemical products from several nations because the country possessed oil resources. But in 1977-78 the total value of all industrial exports including petrochemicals was no more than two percent of total exports. Though the idea underlying its development is sound in that it provides the necessary linkage between the oil sector and the rest of the economy, expectations concerning its progress smack of total indifference towards scientific and rational assessment of project performance.

The promotion of cement industry which was accorded top priority, as there was a steep rise in demand for construction materials of all kinds, entailed problems of distribution such as perpetuating price rise, black marketing, illegitimate procurement by officials wielding political power, ever increasing dealers margin etc on the one hand while lack of transport facilities resulted in slow movement of both home produced and imported cement from production points and ports to markets reinforcing black market sales.
The views expressed in the above paragraphs may further be elaborated in terms of statistical data indicated in Table 8.2 and the accompanying explanation.

**TABLE 8.2**
Distribution of output among selected industries (percent) 1972-6

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Textile</td>
<td>17.8</td>
<td>17.0</td>
<td>16.4</td>
<td>15.0</td>
<td>13.5</td>
</tr>
<tr>
<td>2. Motor Vehicles</td>
<td>14.6</td>
<td>15.8</td>
<td>17.3</td>
<td>19.5</td>
<td>21.6</td>
</tr>
<tr>
<td>3. Sugar</td>
<td>10.2</td>
<td>8.7</td>
<td>7.8</td>
<td>7.2</td>
<td>6.3</td>
</tr>
<tr>
<td>4. Basic Metals</td>
<td>8.8</td>
<td>9.8</td>
<td>9.3</td>
<td>8.8</td>
<td>9.4</td>
</tr>
<tr>
<td>5. Tobacco Products</td>
<td>8.6</td>
<td>7.3</td>
<td>6.5</td>
<td>6.1</td>
<td>5.8</td>
</tr>
<tr>
<td>6. Home appliances</td>
<td>6.4</td>
<td>6.7</td>
<td>7.5</td>
<td>7.5</td>
<td>8.3</td>
</tr>
<tr>
<td>7. Vegetable Oil</td>
<td>6.4</td>
<td>5.8</td>
<td>5.1</td>
<td>5.4</td>
<td>5.1</td>
</tr>
<tr>
<td>8. Cement</td>
<td>3.6</td>
<td>3.7</td>
<td>3.3</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>9 Radio, Television &amp; Telephone</td>
<td>3.5</td>
<td>3.7</td>
<td>4.2</td>
<td>5.1</td>
<td>4.8</td>
</tr>
<tr>
<td>10. Petrochemicals</td>
<td>3.2</td>
<td>3.7</td>
<td>3.9</td>
<td>3.2</td>
<td>2.8</td>
</tr>
<tr>
<td>11. Toiletries</td>
<td>2.9</td>
<td>3.0</td>
<td>2.8</td>
<td>3.0</td>
<td>2.8</td>
</tr>
<tr>
<td>12. Others</td>
<td>14.0</td>
<td>14.8</td>
<td>15.9</td>
<td>15.4</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Based on Bank Markazi Iran, Annual Report 1975-76. (persian edition) table 50.
Textile industry that accounted for 17.8 percent of total output in 1971 declined in importance with 13.5 percent share in total output by 1973-74. Similarly, sugar etc which had relatively large share in total output declined as well. The 1973-74 oil boom already changed the pattern of demand away from these products to automobiles, home appliances etc. Yet with the increasing impact of oil revenue on demand, the share of all manufacturers was no more than one quarter of industrial output. Most of the new industries had very little export potential, depended very heavily on domestic market which in turn moved in step with oil revenues.

A full picture of the faltering moves on the part of government with reference to both public and private sectors becomes clear when we realise that roughly about 35% of the total value of industrial output was made up of small scale, traditional, urban and rural industries as against 14.5% in respect of modern industries.

We notice from the above that the country's industrial structure that was indeed very simple in the 1930s and 40s appeared transformed into a very complex network bustling with full scale industrial activity during the 1960s and 70s. But more realistic conclusions can still be drawn. For one thing, the several governmental measures were detrimental to a sound process of industrialisation, producing negative results; measures adopted were more populist than well intended; regulatory steps were designed and enforced more to
serve immediate political ends than to promote long term economic benefits.

8.4 Conclusion

To sum up, it has to be noted that both the public and private sectors reached their peak levels of development. But both the sectors failed to reach higher levels of equilibrium on a sustained basis because such a sustained development could come about not with pronouncement of policies or fixation of targets but only when efforts are directed to goal realisation. Goal realisation ultimately deponds on how an industrial development policy that is comprehensive enough to generate forces of revolutionary changes in other sectors is evolved in a country.

Considered thus, Iran's process of development via industrialisation can be summed up as follows: Iran's industrial achievements are impressive enough, if one goes by statistics related to investment, production, employment, type of activity etc. The realisation of targets, physical and financial, are both confounding. But at best, they reflect rising oil revenues, enhanced purchasing power and consequent rise in economic activity.

Industrial policy as evolved in Iran over the years does not reflect flexibility to accommodate changes as warranted by changes in either oil revenues or changes in purchasing power. For at a time when private sector activity appeared to be subdued, government made no effort to gear the public
sector to rejuvenate the economy. Vague statements about public and private sector activities apart, there were no attempts to spell out their respective areas of operations, the manner in which ancillary industries would be developed or traditional industries would be promoted the mechanisms through which to deal with industrial concentration or to curtail growth of monopoly and the flow of foreign exchange or how industrial development would be dovetailed with development in the other sectors and subsectors of the economy.

These would imply that industrial development was unidirectional, confined to the establishment of a few industries that reflected more the urge to enhance national pride and prestige than the cohesiveness with which complementarity could be established. It was also partial or one sided in that even concerning the few industries that were established in Iran, there was a total absence of detailed planning. And, it lacked a unified approach as it failed to recognise that an inbuilt strength could be acquired by industries only when agricultural sector develops in step with it so that potential resources of both capital and labour could be tapped.

An aftermath of these loopholes in the development of industries in Iran was that both the public and private sectors suffered. The former developed on lines where it failed to generate spread effects in other industries while
the latter, quite unprepared for both the eventualities of uncertain economic prospects and boom in economic activities, grappled with the problem for a while and gradually receded to the background.

An important implication of these observations is that authorities in Iran failed to exercise the same degree of care and interest in the rational and economic use of oil revenues as they did in trying to command more and more of such resources while Iranian authorities desired that by the turn of the century, the country can attain parity in economic status with advanced economies, there was little realisation that the arrival of such an eventful day was contingent upon the fulfilment of fundamental changes of three types namely sociocultural changes, policy changes and institutional changes. We examine each one of these in the next chapter that emerges as a conclusion to this work.
Notes and Reference


CHAPTER NINE
SUMMARY OF CONCLUSIONS AND SUGGESTIONS

9.1 An overview

Throughout this study so far we have examined the pattern of industrial development in the past three or so decades from different perspectives. Our present task is to get an overview of our analysis from various angles so that we are in a position to offer some suggestions for future guidance. Accordingly, in this chapter we attempt to evolve a consolidated picture of our observations all through and to conclude with some guidelines.

If one is confounded by the breathtaking pace at which industrial sector moved ahead in the late 60's and 70's and is led to believe that the economy in Iran was on the threshold of a take off, we may then positively say that such a view is based on only a superficial treatment of the whole question of industrialisation. A deeper insight has indicated to us limitations in terms of time dimension, lack of guidance to private sector and frequent uncertainties that crept into the economy. To a large extent industrialisation gained momentum only from 1965 and continued till 1975 because until 1962-63 when the third plan was launched, industrial development was not the primary or even an important concern of the government. This, associated with inadequate support/guidance from the state through policy measures and uncertain demand prospects at times, acted as an obstacle to greater optimality in the sector.
While private entrepreneurs were haunted by uncertainties and hence confined themselves largely to consumer durables, pseudo-modern attitude on the part of authorities exacted all their attention all through to plan heavy investment in public sector that turned out to be economically infeasible. Hence a more unified approach with suitable measures in respect of industrialisation failed to emerge over the years.

The most important outcome of this was that development of entrepreneurship in the country was very limited to a large extent. There was a remedy found in importing talent from outside but this remedy proved more fatal in due course than the disease as it prevented the emergence of a native entrepreneurial class in future. All the same, those few native entrepreneurs who ventured out to start various industries prepared themselves not only to face uncertain business prospects and take to risks in their respective businesses but brazed themselves through production of goods and services even when frequented by uncertainties and risks all over the economy — the pursuit of a course of action perhaps unparalleled.

Yet, this role of entrepreneurs has so far remained unrecognised because it was totally overshadowed by abundance of capital and its high velocity — the latter characterised not by efficiency in use but by the greatest degree of inefficiency. Thus, while a large chunk of available private
capital was channeled into unproductive, as opposed to industrial use because of lack of measures to promote a proper use and of proper atmosphere for investment, a dangerously high proportion of capital available with the government in the form of oil revenue slipped out from the more possible productive uses through the interminable escape routes of the indefensible defence expenditure and overcharged administrative expenses.

Even the small part of capital that was invested in industrial production failed to have a salutary effect on the economy because capital that entered production stream this way was never supplemented by simultaneous investment in the creation of future economic assets through manpower development. Over the years therefore mounting levels of investment in several production activities seemed up a blind alley with mounting skill shortages as well.

It was an interplay between these two above mentioned factors that ultimately eroded all potential avenues for optimal production of industrial goods. On the contrary, serious distortions that were generated by rising oil revenues appeared in quick succession - unchecked spending, rising income levels, western consumerism and excess demand associated with it, mis-judged allocations in both private and public sectors with no risk - short gestation projects and the go high - tech type of projects respectively, shortage of skilled labour, demand supply desparity, escalating imports choked supply points and finally a
galloping inflation - all because of complacency on the part of both authorities and the general public. This distorted market situation was flashed out through the market mechanism. Market mechanism all the way indicated two things: 1) that rising oil revenues could be used as a means to achieve industrial promotion both internally and via foreign trade and 2) through two of its hot lines, viz., inefficient use of ISI strategy and insufficient efforts at export diversification, attempted a forecast of a disastrous role played by oil revenues in respect of industrialisation.

What we therefore see at the end of it all is enormous miscalculations and seemingly endless misadventures on the part of the government. Iran which at the late 60's and early 70's was a capital - abundant - skilled labour deficient country was obliged to resort to international borrowing because rates of oil revenue increases were far less than expected. By 1978, with the onset of strikes in all sectors Iran slipped into a position of unskilled labour abundant, capital shortage country. The tenor of it all is that persistence at economic mismanagement is reflected through a total lack of concern to evolve a multi directional package of industrial strategies and a lack of political will and commitment to implement even the loosely knit set of measures leading to policy deficiencies and policy failures.

In the course of the study, we set before ourselves certain hypotheses. A test of each of these hypotheses
indicates the following. References made to them at relevant places in several chapters reveal that –

1) Our first hypothesis that the economy was exclusively dependent on oil revenues for financing the development programmes bears positive proof.

2) Our second hypothesis has been partially substantiated by evidences relating to manpower planning. Thus failure to achieve industrialisation programme can largely be attributed to inadequate manpower planning. In part, this hypothesis is negated because in respect of industrial failure as a fallout of lack of entrepreneurial talent, there is evidence to the contrary, the general preparedness of entrepreneurs to face not only uncertain business prospects but even uncertainties all over the economy as well.

3) Our examination of the third hypothesis that though capital was abundant, lack of proper channelling of the same was crucial for investment indicates that there are not only innumerable proofs of the same but that they are irrefutable too.

4) The next hypothesis related to the small size of market for industrial products was examined from two different angle-(i) External market (ii) Internal market. While with respect to the former, we see positive evidence, in respect of the latter, there is insufficient proof.
9.2 Problem areas & Policy Proposals

The process of industrialisation as examined so far indicates that in the recent past industrial sector appeared to fulfil the twin goals of output expansion and income and employment generation by the late 60's and early 70's. But its inability to survive after 1976 was due to the fact that it lacked a strong foundation in the form of well coordinated policies. Industrial development that was considered central to fulfilment of national goals was not linked up with other spheres of economic activity. It was never supplemented with policy measures in spheres such as development of banking and capital market to ensure proper channelling of funds to desirable productive activities, development of human resources to achieve a certain degree of talent and skill, improved infrastructure facilities in all provinces so that both factor and product markets expanded, intra-industry and inter-industry integration so that the required backward and forward linkages were established, intersectoral integration so that agriculture etc., benefited from and in turn strengthened industrialisation and finally attempts at cost reduction and quality promotion so that the sector moved upwards continuously. Even within the sector itself policy deficiencies existed as noted all through. The output and income expansionary forces noticed in the sector were of a limited significance in terms of both temporal and spatial dimensions. An undercurrent of forces detrimental to such tendency to improvement manifested all through and surfaced
only by 1976-77, when the entire economy was overheated. An uninterrupted trend to output, income and employment generation was contingent upon three kinds of changes, namely, sociocultural, institutional and promotional/regulatory changes involving the people, institutions and government respectively. An elaboration of these ideas appears as a part of our concluding remarks. But before that we turn to some suggestions that are basic to industrial promotion in the country, though by no means exhaustive.

9.3 Suggestions

9.3.1 Entrepreneur

a) For a successful programme of industrialisation, it is absolutely necessary that a country promotes applied research in production. Iran must therefore first of all give top priority to this and through both coercive and pursuasive measures ensure that research and development departments are established in all major industrial units.

b) Further, entrepreneurial development must be promoted by government by encouraging the establishment of management and productivity councils, special institutions for industrial management, science and technology engineering courses, etc. So that middle and top management personnel are drawn from qualified people. An initial grant or subsidy for some years could be considered.

c) Entrepreneurs could also be encouraged through subsidies,
interest free loans, easy purchase of land, concessional levy on power, water export incentive.

d) Government must also ensure that there is a favourable socioeconomic climate so that entrepreneurial activity is not hampered. A significant point to note is that while policies directed to regulate entrepreneurial activities to bring in greater harmony and improvement in the atmosphere for development are well taken, government must ensure that enforcement authorities do not abuse them to harass entrepreneurs.

9.3.2 Capital

a) The role played by a capital market with a stock market, banking and financial institutions and genuine corporations etc., in industrialisation cannot be overemphasised. These would promote an improved channelling of personal or household savings from unproductive uses to more productive uses.

b) It is also necessary that government frames rules governing equity capital to loan ratios for various industries, their working capital requirements and forecasting their financial liquidity positions by drawing up reliable cash flow charts. It must also improve accounting system by insisting on companies that they observe cost accounting and record maintenance procedures.
c) In respect of loans granted to industries, there must be a proper alignment of rates of interest not only as between different institutions but also as between different term loans.

d) Commercial banks and other financial institutions should look to the more important short term needs of working capital of industries.

e) Government must evolve a more broad based credit policy so that there is a more rational distribution of loans not only as between different industrial uses but also as between small and large industrial units.

f) There must be an annual review of the liquidity position of industries to ensure that their operations are smooth.

9.3.3 Manpower

a) The establishment of technical training and vocational training schools must take precedence over other measures concerning labour. It is also necessary to ensure that the quality of training must be satisfactory and incentives offered so that sufficient labour is drawn into these institutions.

b) There must be a manpower planning, dovetailed to development plans so that labour supply—demand position is clearly established.

c) Labour legislation should be enforced not only in respect of provisions relating to minimum wages and hours of work but
also those concerning bonus working conditions, social insurance, etc.

9.3.4 Market

a) Government must evolve policies whereby consumption of imported goods is discouraged. Regulatory measures in this direction must go with fiscal measures that promote greater use of domestic products.

b) Measures will have to be evolved to enforce standardisation of products, so that there is a continuous improvement in quality while there is also reduction in production costs.

c) Government must improve transport and storage facilities, communication, etc., in all regions so that it not only helps in improved industrial location but results in extension of the market.

d) It is also necessary to develop the mass media, so that sales promotion, which is an important concomitant of marketing is strengthened. At the same time there is need for establishing marketing agencies.

e) An effective price policy and measures to promote consumers cooperative is to be evolved so that the role of middle men is minimised and both consumers and producers are benefited.

f) Efforts must be made to promote better trade ties with existing international markets and to also explore new ones.
9.4 Concluding Remarks

We have so far seen certain policy measures suggested in respect of entrepreneurship, capital, manpower and market. These directly relate to industrial promotion. It may be supplemented with others in the sphere of dispersal of industries, greater exploitation of natural resources, appropriate technology etc. The emphasis must be on shifting growth poles away from two or three cities to several others. Technology content must be such that it does not create unemployment of labour. Technology appropriate to the nation must be evolved. And government must see that natural resources are utilised not just to meet export requirements but more importantly to meet domestic requirements of end products.

The following concluding remarks would indicate how these and related measures could be shaped if only Iran attempts to avoid the defects therein.

In Iran industrialisation was always viewed as synonymous with affluence and abundance and high standard of living. In advanced economies, industries are the source from which there is an uninterrupted flow of bewildering array of products. Industrial sector in these countries has accounted for an increasing share in national income continuously over the past several decades. In other words, the prestige of the primary sector has relatively been reduced. Small wonder that in Iran, planners and policy makers saw the development of
secondary sector as an indication of economic growth and geared the economy's effort to its acceleration. What was probably not realised in Iran was that it was as important to develop agriculture as it was in the case of industry. Also, planners failed to recognise the necessity to unite various subsectors in agriculture. And, perhaps, the most serious lapse was the failure to realise the unsuitability of industrial pattern adopted.

It can be said that industrial development must go with improvements in methods of agricultural production. Yield increases and improved production techniques. All this would not only enable but necessitated movement of labour from agriculture to other sectors chiefly industry. Again, in most cases, the most important of resources i.e., capital needed by the growing nonagricultural sector would be provided by the farm sector.

In Iran, on the other hand, insufficient attention was paid to agriculture while increasing investments were made in the secondary sector and for improving basic infrastructure especially in the 60's and 70's. As a result, a considerable gap existed between the farmer and industrial labour. Due to the growing difference in productivity between industrial and farm sector, the rural population lacked the necessary purchasing power to buy industrial products both for production and consumption purposes. It should have been realised that since the majority of population lives in rural
areas, industrial products would have a limited domestic market, unless agricultural sector developed. Also, in Iran it was never realised that industrial products were far less competitive in internal market against imports. The capacity for industrial growth was contingent upon the growth of agricultural sector in terms of increased productivity of agricultural populations which could be achieved through industrial supplies.

A serious implication of the failure to develop agriculture was that the sector was unable to meet the growing demand of non-agricultural population for food and raw-materials. As a result, many basic items of food had to be imported. Food imports constituted 15% of total imports in Iran requiring the diversion of foreign exchange for food imports which otherwise could have been utilised for developmental purposes.

What Iran did not realise when it equated industrialisation with development was that in the case of the present day advanced economies and this is not accidental, agriculture kept pace with industrial development and could record rising efficiency as a result of new inputs such as fertiliser, machinery, pesticides, etc., from industries corresponding with these new supplies from the industrial sector, agricultural efficiency increased with better utilisation of manpower as the number of workers per hectare was reduced. In effect, in advanced economies each sector helped the development of others. The result is that
while a large part of agricultural output is diverted for use in industrial sector as raw material, agricultural sector plays a complementary role by demanding industrial products as its inputs.

These inter-relationships are an indicator of the direction and pace of development. The closer the link between the two sectors, the more accelerated is the process of development. Iran's planners failed to realise that such a relationship between the two sectors depended on two things—the provision of the necessary infrastructure enabling each sector to demand the product of the other and the necessity to bridge the gap between the price that the farmer received and the price that the ultimate consumer paid.

But in Iran, industrial bias seems to have worked against such a unified approach to the simultaneous development of both sectors.

In effect, it appears that Iran, after thirty years of planning, dropped back to a sixty year situation. Concerning a reconstruction process, it was not proposed here to evolve concrete strategies for Iran's overall economic development because that is more in the realm of government action as related to national plans. Nor did we intend to propose an economic model as that is not within the scope of the present study. What we have tried to indicate as suggestions in the above paragraphs manifest themselves as changes in either one or the other of the three entities in the economy which are as follows:
A simultaneous achievement of the ultimate goals of industrialisation in respect of output, income and employment generation require sociocultural changes involving people as an economic entity; secondly it warrants policy changes involving government as an entity; finally, it necessitates institutional changes. Provided that these three major changes are brought about simultaneously in a country, goal realisation process becomes easy. In Iran, there is very little evidence to show that changes in these entities, although noticed in the past, did move in the desired fashion. The crux of Iran’s failure to industrialise relates to the inability to recognise the most suitable changes in the three areas.

As for the country’s population, a realisation that a more nationalist attitude is basic to its ultimate economic improvement is of immediate importance. For, the moment Iran has enjoyed surplus oil revenues, its population has exhibited a tendency to increased reliance on imported consumer items. In this sense, nationalism as an economic necessity manifests itself in encouraging domestic products. Such a change in attitude whereby a nation does not belittle the importance of internal products if necessary may have to be sustained with an active propaganda by government emphasising self reliance.

Again, policy changes that emanate from the decision making authorities must manifest themselves in promoting both
agricultural sector and industrial sector. Their role, it must be realised, is always complementary and not competitive.

Institutional changes would mainly concern promoting certain economic ends such changes as those geared to decentralisation of both political authority and economic planning, the development of regional authorities the creation of a supporting system that removes the industrial bias and urban bias in terms of provision of services, welfare institutions and institutions such as those related to fiscal and monetary operations aimed at greater equality of income and wealth.

In the final analysis, the nation's future development, when planned in the directions indicated above, would enable her to derive optimal benefits from the use of her resources.

As we draw to a close, we step aside and see whether we can recognise a general idea that stands out all through this work. The process of industrialisation in Iran no doubt come to a grinding halt in the latter half of 1970s. But during the three decades till 1975, the two entities of the secondary sector - the public and private sectors - had their own role to play. And, as we visualise moving from the seemingly invaluable but simple and self-supporting traditional pattern of industries in the 1940s through the sweeping, pulsating industrial modernisation of the 1960s to a perpetually escalating but potentially explosive complex
industrial canopy of the 1970s to reach a dead end by 1980, intrasectoral contradictions in terms of a highly efficient private sector and an entirely inconsequential public sector leave in our minds an indelible impression that the former in the private sector must take precedence over the latter. In this, we may take, that our hypothesis about assigning a greater role to private sector is well established.