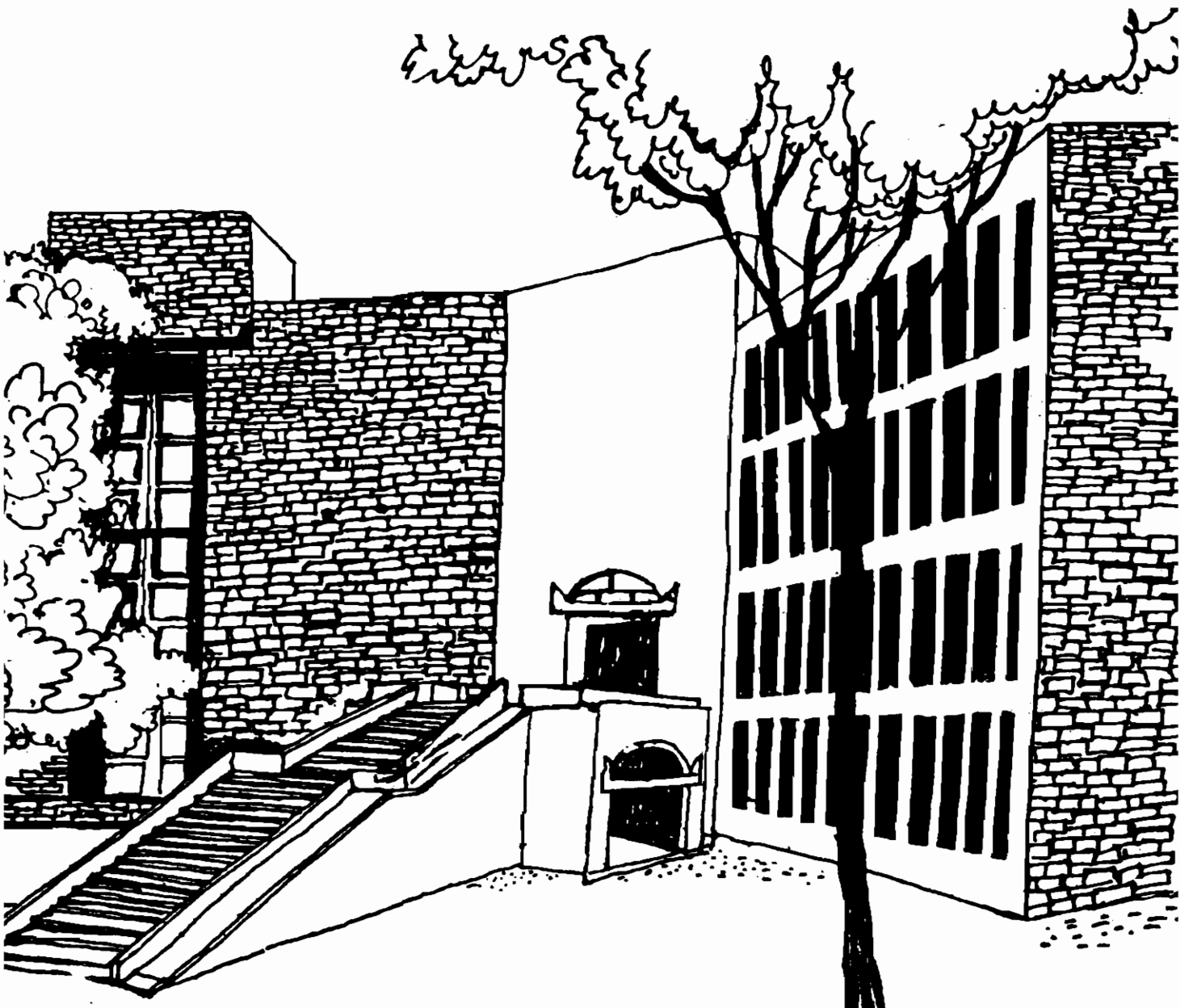




Working Paper



INDUSTRIALISATION STRATEGY OF GUJARAT:
PERFORMANCE AND AN AGENDA FOR FUTURE

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INDUSTRIALISATION STRATEGY OF GUJARAT:

Performance and an Agenda for future
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Since its inception Gujarat has initiated and sustained an aggressive strategy for industrialisation. The government of Gujarat, irrespective of its changing political affiliation from time to time, has had a positive orientation towards industrialisation and creation of environment where enterprises could be run viably. It has also attracted entrepreneurs to Gujarat from all parts of the country and abroad.

This paper attempts to analyse the industrialisation strategy of Gujarat and its performance, and suggests an agenda for the future. The study draws primarily on various reports of the Centre for Monitoring Indian Economy, publications of INDEXTb, and the Annual Survey of Industries, the Handbook of Industrial Statistics, and the Economic Survey Reports, all published by the Government of India. Some support has been obtained from interviews with industrialists, entrepreneurs, and officials involved in the industrialisation of the state.

SALIENT FEATURES OF GUJARAT'S INDUSTRIALISATION STRATEGY

The salient features of Gujarat's industrialisation strategy can be identified as follows.

INDUSTRIALISATION STRATEGY OF GUJARAT:

PERFORMANCE AND AN AGENDA FOR FUTURE

ABSTRACT

This paper outlines the salient features of the industrialisation strategy that Gujarat appears to have followed since its inception. The results which this strategy has produced are also discussed. The paper goes on to suggest changes required to be made in the strategy to maintain Gujarat's position as one of the leading industrial states in India in view of the changing business environment in the country.

The Strategic Intent

The industrialisation strategy of Gujarat was framed within the context of the industrial policies of the Central government and the industrialisation strategy of the state of Maharashtra. From the very inception of the state, the government took promotion of industries as its prime responsibility. The strategic intent, though not articulated in specific terms, was to catch up with Maharashtra as quickly as possible. The initial thrust of Gujarat's industrialisation strategy had been to propose Gujarat as a viable alternative to Maharashtra. Industrial estates were built along the railway line from Bombay to Ahmedabad. This enabled the entrepreneurs in Maharashtra to set up units in Gujarat without disturbing their headquarter bases.

The objectives of the strategy were to create opportunities for exploiting the natural resources of the state of Gujarat, promote the growth of backward areas, generate employment opportunities and diversify the industrial base of Gujarat.

Signals for new industrial activities

The signals for initiating new industrial activities came from the developments on the international front and from those in the states of Maharashtra and West Bengal. The time lag between the success of products and technologies abroad and recognition of similar opportunities in India, created scope for easy identification of opportunities for industrialisation. The early import activities provided an indication of the emerging domestic needs. Invariably the arguments for initiating the projects

were to substitute imports and save foreign exchange. The next step was to look for a collaborator to obtain the technology. In fact, the industrialisation strategy could be described as 'import induced and collaboration dependent'. Besides, successful projects in Maharashtra and West Bengal gave additional signals towards the kind of activities that could be started in Gujarat.

Harnessing the entrepreneurial talents of all and natural resources of Gujarat:

Initially, the industrialisation strategy aimed at channeling the entrepreneurial talents of Gujaratis all over the country and abroad to create an industrial base in Gujarat. It was a case of calling 'non-resident Gujaratis' to do something for Gujarat. Special appeals were made to established industrialists in India with roots in Gujarat to consider Gujarat as their next location either for expanding their current ventures or diversifying into new areas. In later years, efforts were made to attract established large business houses to the state. The Government provided the basic industrial infrastructure by setting up industrial estates and a flexible administrative machinery to respond speedily to the proposals of the entrepreneurs.

Efforts were made to promote projects around the natural resource endowments of the state, namely, petroleum reserves, and mineral deposits, and to provide incentives for exploiting the upstream and down stream opportunities created by the projects.

Creation of Supporting Institutions and Cadres:

To activate the industrialisation process and sustain its momentum, the Government of Gujarat created special institutions to provide finance, build the infrastructure, and provide a one stop counter for all the information requirements. These institutions were expected to facilitate the speedy processing of applications and focus on results. Bureaucrats with experience and enthusiasm were appointed to head these organisations. These institutions were organised as corporations or independent agencies and were given sufficient autonomy to chart out their individual strategies. Gujarat Industrial Development Corporation (GIDC), Gujarat State Finance Corporation(GSFC), Gujarat Industrial Investment Corporation(GIIC), Gujarat State Small Industries Corporation(GSSIC) and Industrial Extension Bureau (iNDEXTb) are the illustrations. The roles of these corporations were distinct. The market segments identified by them were also clearly separable. This enabled them to avoid undue duplication and evolve collaborative strategies wherever feasible. iNDEXTb provided common information support to these corporations.

The Sweetners:

The next aspect was the policy of incentives. In order to accelerate the pace of industrial development, especially in the backward areas of the state, the state government announced an industrial policy offering exemptions, subsidies, sales tax benefits, additional incentives to employment intensive industries, pioneer units, processing units incentives, and special incentives for setting up 100 per cent export oriented units.

Special schemes were developed to support small enterprises, first time entrepreneurs, and technical entrepreneurs. Through this it attempted to create a cadre of new entrepreneurs. The package of incentives was similar to that of Maharashtra. These were promoted aggressively through the print media and open house meetings with businessmen at different locations in the country.

The Non-Resident Indians:

In keeping with the thrust of the Central Government's policy, the Government of Gujarat announced its policy of attracting non-resident Indians to set up industries in Gujarat. An international division was created at INDEXTb to attend to the problems of non-resident Indians. "Quick response to proposals" was identified as the critical factor in success.

In sum, the various components of the strategy were so chosen as to create support and sustain industrialisation in the state.

PERFORMANCE OF THE STRATEGY

Gujarat has risen to the position of being the second largest industrial state in the country from an initial position of number eight at the time of separation from the state of Maharashtra in 1960. It has developed a potential to aspire for the top position. From 3.4 per cent in 1960's, the industrial growth rate increased to 5.9 per cent in 1970's and about 8 per cent in 1980's. Over the years, Gujarat has grown not only in terms of measures like number of factories, employment, volume of produc-

tion, and value added, but also in relation to the diversity of the portfolio of industries. In the following paragraphs we present some of the highlights.

Number of Factories:

Over the years the size of the industrial sector has increased. The total number of factories, registered and unregistered, in Gujarat increased from 3649 in December 1960 to 16000 in December 1988. By September 1991, this had increased further to 17491. With 10,653 registered factories, Gujarat accounted for 10.4% share in the entire factory sector in India in 1987-88. However, Maharashtra continued to lead in terms of overall growth. In 1960, it had 8233 factories which increased to 23,000 in 1989. Gujarat topped the list of number of factories in chemicals and chemical products. In June 1987, the number of registered working factories for chemical products was 1,574. The small scale sector has also grown from strength to strength. The number of small scale units has increased from 15849 in 1971 to 53433 in 1986.

The number of industrial estates has increased from 37 in 1970 to 180 in 1992.

Locational Spread:

There has been a locational diversification too. Initially the industrial units were set up around Ahmedabad, Baroda, Rajkot, and Surat. Later, the state succeeded in developing new locations like Umbergaon, Vapi, Ankleshwar, Bharuch, Halol,

Kalol, Vagodia, Chhatral, Bhavnagar, Alang, and Junagadh for setting up industries.

The concentration still is around Ahmedabad, Baroda, Rajkot, and Surat though their share is gradually declining. Ahmedabad with 2158 units was the leader in 1985. It was followed by Surat (1395 units), Rajkot (1230 units), Baroda (1203 units), and Valsad (1186 units).

When compared to the other developed states in India, the picture of concentration does not look so dismal. In the case of Maharashtra for example, Bombay alone has 56% of the total factory workers of the state and the districts of Bombay, Thane, and Pune together accounted for 77% of the factory workers. Ahmedabad district has 40% of the factory workers and Ahmedabad, Baroda, and Surat together have as much as 60% of the factory sector workers of Gujarat.

The three districts of Maharashtra mentioned above are situated in the extreme western corner of the state. On the other hand, Ahmedabad is right in the centre and Surat and Baroda are so located as to provide an extended axis for a balanced regional growth.

Industrial Portfolio:

Over the years, the industrial composition of Gujarat underwent a remarkable change. From a textile industry base, it emerged as the major producer of soda ash, caustic soda, nitrogenous fertilisers, phosphatic fertilisers, cement, petrochemicals

and plastics, dyes, and intermediates, and drugs and pharmaceuticals.

The textile group with almost 30% share in the gross output dominated the industrial scene of Gujarat till 1975-76. By 1985-86, this position was taken over by the chemical and allied industries group, its share being 26.8% in terms of gross output and 30% in terms of value added in the State. Here, it would not be out of place to mention that the chemicals group recorded a higher than average industry growth rate of 11.19 per annum at the all-India level also.

The share of the industry group producing rubber, plastic, petroleum, and coal products also rose from 9.7% to 13.1% of gross output of the state, next only to chemicals. In fact, in 1987, the share of Gujarat in the production of soda ash stood at 94.5%, that of azo dyes at 90%, nitrogenous and phosphatic fertilizers, at 62.6% and 56.6% respectively and vat dyes at 56.2%.

While there were activities around the resource bases in Gujarat, the rest of the country was seeing changes in the opportunity profile of two other sectors, namely, consumer durables and electronics. In both the cases the bus was missed by Gujarat. This is elaborated in a later section of this paper.

The industrial composition of Maharashtra also underwent a change since 1960. Cotton textiles which was particularly important in the early sixties gradually lost its place to industries like chemicals, basic metals and alloys, machinery manufacture, machine tools and transport equipment. Another group which lost

its place was food products. From a predominantly consumer oriented character in the sixties, the shift has been in favour of capital and intermediate goods industries.

Pattern of Investment

Various projects that have led to the fast pace of industrialisation in the state are Central Public sector projects, like IPCL, State Public Sector projects like those by GMDC, GSFC, GNFC, GACL and Gujarat Communications and Electronics Ltd. and the projects of large business houses like ESSAR, Godrej, Reliance, Tatas, Birlas, Mehtas, Munjals, and Raunaksinghs. Additional contribution has been that of several small and medium scale units set up by technical, first generation, and business family entrepreneurs.

The investment in central government undertakings located in Gujarat was Rs.176 crs. in 1971-72; this increased to Rs.4,205 crs. in 1987-88. This accounted for 5% share of the total central government enterprise investment in India. The central sector of the state employs 51,000 persons which is just about 2.2% of the total employment in the central sector in the country. This indicates that the growth has been spurred by Gujarat's own efforts and the support of large and small entrepreneurs in the private sector. Gujarat did not have any public sector undertaking at the time of the formation of the new State. The oil findings attracted the attention of the central government. Gujarat Refinery came up in 1965. Trial production at Ankleshwar oil fields started in 1962 and in 1973, Indian Petrochemicals Corporation Ltd. started commercial production at Baroda. The

expansion of Gujarat Refinery of Indian Oil Corporation Ltd. was completed in March 1979. At present it has a capacity of 7.5 in tons and is the largest refinery of the country. Modern Bakeries is the only central government unit in the consumer sector in Gujarat.

Investment in fixed capital in the organised industries in Gujarat increased from Rs.246 crs. in 1960 to Rs.7722 crs. in 1985-86. This investment has been in the central government, joint sector, and private sector projects.

In 1987, Gujarat accounted for 225 projects with an investment of Rs.40,000 crs. Per capita investment among projects under implementation in the state accounted for Rs.5,451 compared with the national average of Rs.2,160. In terms of the per capita investment in mining and manufacturing alone, Gujarat stood first with a figure of Rs.2,691 against an all-India figure of Rs.1,309. In comparison, Maharashtra ranked eighth with an investment of Rs.1,065. The number of large projects in this sector in Gujarat was the highest with 28 against 17 in Maharashtra out of 208 for India as a whole.

Employment

Due to the growth of chemicals, petrochemicals and related activities which are labour-saving and automation intensive, the industrialisation process in Gujarat has generated limited opportunities for employment.

Gujarat's contribution to total employment in India, re-

remained the same, at a level of about 9 per cent through 1970-71 and 1986-87. The number of employees increased from 4.75 lakhs to 6.8 lakh persons during this period.

The Missed Buses:

Consumer durables entered the Indian market in a big way in the eighties. In fact the consumer durables segment came up as the fastest growing segment over the eighties, the output having increased at around fifteen per cent per annum. This consumption led growth was a spin off of the liberal policies favouring imports, as the import content of this group was very high. It, however, did not take roots in Gujarat.

Gujarat started the production of two and three wheelers with the initiative taken by the State Small Scale Industrial Investment Corporation. As the business ran into trouble it was taken over by the Gujarat Narmada Fertilizer Corporation as a part of its diversification plan. Though the demand for scooters in general, was increasing, the business did not do well. Hence it did not generate the opportunities for backward linkages. The units for producing television sets, refrigerators, and washing machines were set up outside Gujarat.

Electronics Sector:

Another area which spurred the industrialisation process at the All-India level in the eighties was the electronics sector. It initially started as a small scale, labour intensive assembly activity. With rapid strides in the technology of manufacturing and the presence of scale economies in production and procure-

ment; its characteristics changed. It became capital intensive and skill intensive. It however continued to remain a footloose industry. Like other states Gujarat also tried to woo the electronics entrepreneurs. The response however, was not encouraging. While efforts were focused on developing the chemical and petrochemical, and the metal sector, especially sponge iron, the electronics bus was missed. Production of electronic items at Rs.345.5 crore contributed just 4% to the total production in India, whereas the shares of Maharashtra and U.P. were 15% and 19% respectively.

The various steps taken recently like the establishment of an exclusive industrial estate for electronic industry at Gandhinagar and a project in the State sector at Baroda, promotion of some joint sector projects in electronics by GIIC, have yet to yield results.

The trends in the production of electronic items in the last three years can be seen from Table 1.

Table-1

Trends in the Production of Electronic Items

Production	Gujarat	Maharashtra	All India
a) 1988 (Rs. crs.)	296.4	997.0	6,296.0
% to total	4.7	15.8	100.0
b) 1989 (Rs. crs)	335.0	1256.0	8,309.0
% to total	4.0	15.0	100.0
b) 1990 (Rs. crs)	345.5	1469.5	9,200.0
% to total	3.8	16.0	100.0

Source: Basic Statistics relating to Indian Economy : States, CMIE, 1991.

The position of Gujarat in the Indian electronic sector can be seen from Table 2.

Table-2

The Position of Gujarat in the Electronics Sector

	Gujarat	Maharashtra	All India
No. of units reporting production : 1990			
- Small scale	152	579	1951
- Total	184	670	2609
- % to total	82.5	86.4	67.1
Employment : 1990 (000 Nos.)	15.5	56.0	285.0
% share to total	5.4	19.6	100.0

Source: Basic Statistics relating to Indian Economy : States, CMIE, 1991.

A quick scan of the new upcoming industries like washing machines, synthetic shoes, computers, light commercial vehicles, electronic components and accessories, leather goods, indicates that states other than Gujarat have been selected initially. In case of the computer industry, all the top 10 computer companies have been set up elsewhere.

NRI Projects for Gujarat

Gujarat has earned the reputation of being able to attract entrepreneurs not only from all corners of the country but from different parts of the world as well. As of June 1989, 459 non-resident units were provided assistance by INDEXTb. Out of this, 233 units involving a total project cost of Rs.11537.77 lacs went into production. U.S.A. emerged as the biggest contributor,

promoting a total of 108 units, followed by U.K. with 47 units. A look into the industrywise classification indicates a preference for engineering, chemicals, and plastic based industries (61, 49, and 36 respectively).

Some Concerns:

Sickness: In general, sickness is more predominant amongst states which are more developed industrially. As on 30th June, 1988, the four industrially leading states, namely, Maharashtra, Tamil Nadu, West Bengal, and Gujarat together accounted for nearly 65% of the total outstanding credit from the scheduled commercial banks. In Gujarat, industrial sickness grew at an annual rate of 28% and 13% in terms of the number of units and outstanding amount of bank credit respectively. As on 30th June, 1988, sickness amongst non-SSI sector in Gujarat was confined to textiles (55 units), engineering (28 units), chemicals (12 units), and paper (9 units). At present, about 172 large and medium units, and 5800 small units in the state were sick blocking about Rs.600 crores.

Industrial Relations: Gujarat lured many entrepreneurs from outside on the ground of a sound industrial relations climate. However, the labour situation reflects an increasing trend in the industrial conflicts. The number of industrial disputes increased from 55 in 1961 to 223 in 1981. After a decline to 187 in 1988, it rose to 208 in 1990. The corresponding loss in terms of mandays recorded an increase from 0.47 lakhs in 1961 to 6.16 lakhs in 1981 and a decline to 5.47 lakhs in 1989. In 1990, the

total mandays lost was 7.55 lakhs. The government of Gujarat is monitoring the developments on the labour front and has already initiated several steps for speedy settlement of the disputes such as an increase in the number of courts and setting norms for disposal of cases.

Other constraining factors identified by entrepreneurs are lack of a high quality educational infrastructure and high prices and costs of raw materials. The incidence of taxes is also considered to be higher than other states.

On an overall assessment, it can be said that the industrialisation strategy of Gujarat has paid off in selected sectors but is yet to make an impact in the emerging sectors. It has achieved its implicit strategic intent and offered a viable alternative to Maharashtra.

FUTURE DIRECTIONS:

Should Gujarat continue its current strategy or is there a case for change? While identifying the tasks ahead for Gujarat in future we need to keep in perspective not only the advantages of the existing level of industrialisation but also the opportunities and threats created by the changing business environment in India. For Gujarat, it is a question of building on the success achieved so far. This would mean retaining the entrepreneurs and encouraging them to strengthen their locational and industrial bases within Gujarat, identifying opportunities for cross fertilization of projects, technologies, and enterprises. The developmental institutions of the government could think of

initiatives in developing strategic alliances among the entrepreneurs who have come to stay in Gujarat for mutual long term benefits.

New Strategic Intent:

The strategic intent should now go beyond providing a viable alternative to Maharashtra. It should steer its directions beyond the national inspirations and its industrial activities should compare with the best in the world. Its growth rate should match those of the newly industrialised countries like Korea. It should lead in the newly emerged sectors in the industry like the consumer and industrial electronics, communications, and optics. It should add new roots to the traditional sectors like textiles by active modernisation and innovations in information technology applications. The other elements of the strategy to support the strategic intent have to be so designed as to fit the changing business environment in India.

The Changing Business Environment

In the last few years far reaching changes have taken place in the environment for doing business in India. Many more changes are expected to follow in the months and years to come. These changes are likely to lead to further changes. They would shift the thrust of management from 'regulation driven' to 'market driven'. They have thrown open opportunities for acquiring new technology, raising funds from new sources, expanding, diversifying, turning around, and internationalising. In the same stream threats have arisen from increase in the strengths of dormant

competitors, possibility of further increase in the strength of existing competitors, impending arrival of new competitors, with new ways of competing, the introduction of substitute products, and the withdrawal of protection and concessions that conferred certain competitive advantages to the existing companies. There could be an increase in the speed of product, material, and technology obsolescence. In order to be forewarned, therefore, it is imperative, that we take stock of what is happening.

New Public Policy Orientation:

The public policy orientation at the level of the centre is increasingly in favour of allowing the market forces to determine the course of developments in the economy as opposed to regulations and controls. Competitiveness, internationalisation, profitability, and efficiency are the watch words. This orientation would soon percolate to the state level. Therefore, opportunities centering around regulations like licensing, reserved sector, quota allocation, and controls would disappear or, at the least, diminish. In the same way the concessions and subsidies would also decline. Certain provisions of the MRTP have been relaxed. Restrictive features of FERA regulations have been removed. With a view to acquire new technologies and provide opportunities for Indian companies to modernise and develop world standards of operations, entry conditions for multinationals have been eased.

New Concepts in Public Enterprise Management:

Concepts like privatisation and autonomy in the management of public enterprises are becoming realities in the Indian context.

The central government is trying to provide autonomy to public enterprises through the instrument of the Memorandum of Understanding (MOU). The attitude towards sick units is also changing from keeping them hanging to protect employment at any cost to allowing exit and providing alternative options for the displaced employees. The message is that what was tolerated and viewed sympathetically yesterday would not be done tomorrow. The central government is also contemplating to off load a part of its investment in the public sector. These have not yet percolated to the state enterprises.

The Internationalisation Thrust:

Increasing gap between the product and the technological achievements in India and abroad and the worsening foreign exchange situation, have put pressure on the Indian industrial sector to internationalise. Public policies are favourably inclined towards efforts in this direction. Gujarat would have to decide its role in this effort in respect of the kind of enterprises to support and the projects to promote. The criterion so far has been to support ventures for 'import substitution'. Gujarat could think of adding export promotion as a dominant criterion. The establishment of Gujarat State Export Corporation and the distinction earned by it as the first trading house among all the public sector export corporations point to a step in this

direction.

Opportunities from new Office Management Technology:

Developments in information technology and telematics are breaking the barriers of time and distance. The organisation of the office and provision of services to the clients are centred around new information and communication technologies. The Government of India is committing more resources to improve the telecommunication infrastructure and provide opportunities to introduce new value added services based on data and voice communications in rural and urban areas. These developments would create two types of opportunities, one, for initiating new industrial activities in telematics and two, for strengthening Government's own internal and external linkages.

In addition to the above, the following developments are important.

- * Dynamism of the capital market facilitating the introduction of new financial instruments and raising large volume of resources from a widened base of investors spread all over the country.
- * Professionalisation of Indian family businesses.
- * Entry of unorganised household businesses into the organised sector.
- * Increasing versatility of technologies for information analysis and communication.

The Government of Gujarat has to understand the implications

of the changing Central government policies and formulate a response of its own in the context of increasing demand for the limited resources of the state of Gujarat.

With increased stress on market orientation, competitiveness, efficiency, environmental awareness, internationalisation, reduction of subsidies and concessions, and resource generation from within by the public policy at the centre, Gujarat has to think through their implications for not only sustaining the success achieved so far but also creating new opportunities.

During the era of licensing, the entrepreneurs used to preempt the entry of newcomers by cornering licenses and not implementing them. The award of a license could block new initiatives in the sector. Delicensing of a large number of industries would now open out opportunities in this respect. It is therefore imperative to take a look at the various licenses issued thus far and their state of implementation with a view to identify the released opportunities and attracting entrepreneurs.

The New Objectives of Industrialisation:

In the above context, the new objectives of Gujarat's strategy for industrialisation in the next 10 years should be :

- * To sustain and strengthen the industrial base of Gujarat by identifying opportunities for synergy, cross fertilisation of projects and technologies of the existing enterprises and entrepreneurs.

- * To provide support in internationalising the operations of

the enterprises operating in Gujarat.

- * To promote the modernisation of existing industries in Gujarat.
- * To promote the industrialisation of backward areas.
- * To promote the reindustrialisation of old cities like Ahmedabad, Baroda, Surat, and Rajkot.

Criteria for Supporting the Projects:

The criteria for supporting the projects should be as follows:

- Potential for building on the strengths already built up in Gujarat by other enterprises. These would be projects with forward-backward or horizontal linkages.
- Potential for export promotion and globalisation.
- Location possibilities in backward regions or in the old cities.
- Contribution to infrastructure, equipments, employment generation.

The target portfolio of entrepreneurs should be as follows :

- Successful entrepreneurs within Gujarat with plans for expansion and diversification.
- Successful small entrepreneurs in transition to medium scale organisations.
- New entrepreneurs with high tech orientation.
- Established entrepreneurs from other states.

Specific Opportunity Areas:

In addition to chemicals, pharmaceuticals, and petrochemicals the following opportunity areas need to be explored for building the new industrial portfolio of Gujarat.

Infrastructure Development: Infrastructure projects, especially for improving the logistic support to enterprises in the form of better port facilities, power network, telecommunication network, alternative energy systems, and road network should receive top priority.

Industrial and Consumer Electronics: It has been pointed out already that Gujarat missed the electronics bus in the 1980s. Enterprises have been set up elsewhere to produce a range of consumer and industrial electronic goods in collaboration with leading companies in the world. As these companies think of expansion to meet the rising demand, their attention should be attracted towards Gujarat. The tie up between Videocon and GNFC for producing TV glass tubes is an interesting development. The promotional institutions of Gujarat should be proactive and approach these entrepreneurs to move to Gujarat. This means that the progress and performance of these companies should be watched systematically by the institutions.

In the electronics sector, the small office automation systems need special attention.

The dimension of internationalising the operations of the

existing enterprises in Gujarat would involve the following components :

- (a) Upgrading the quality of the existing institutional and industrial infrastructure to serve the entrepreneurs setting up the enterprises in Gujarat at International standards.
- (b) Supporting the Gujarat based enterprises to internationalise by providing incentives and information to upgrade quality to world standards, improve efficiency and competitiveness in the export and domestic markets.
- (c) Floating joint sector projects directly with international partners.

Technology upgradation in traditional sectors: The sweeping strokes of electronics technology across industries have necessitated the updating of the technology of old enterprises in every field of economic activity to improve efficiency, competitiveness, and profitability. The application of electronics technology means greater productivity and saving of space. The promotional institutions could approach their old customers and established old companies in Gujarat proactively, with proposals to help them upgrade their technology.

Professionalising segment of traditional home business: It has also been seen that the family managed companies in traditional household businesses like producing kitchen items like masalas,

papads, achars, and instant ready-to-make snack mixes like dosa mix, vada mix are professionalising and expanding their market scope by using mass media. Ayurvedic companies are also following the same strategy. Such companies and several others who may follow these examples need to be identified and provided help for not only modernising their operations but also expanding their production base.

Re-industrialisation of Old Cities: Traditionally business in Gujarat developed around Ahmedabad, Baroda, Surat, and Rajkot. The textile units set up in these cities have declined. The technology of the engineering enterprises is outdated. Many of these industries have closed down. The labour has also got used to the closed status. As these units are wound up and sold, substantial land gets released for setting up new units. Such locations should be identified for setting up modern, environment friendly units in expanding sectors like the office automation segment or pharmaceuticals.

Collaboration with MNCs: Till recently state government institutions have floated companies only with Indian large houses. The public policy was also restrictive. With liberalisation and the concessions to attract foreign investment into the economy, the institutions should take the lead for entering into direct collaborations with MNCs and floating joint ventures with companies like 3M, IBM, Sony, NEC, AT&T, Komatsu, etc. Such projects would also attract NRI investment as the risk is shared by the MNCs. In effect, the institutions would be supporting projects to be located or already located in Gujarat with national and interna-

tional market scope in terms of resources and markets.

Agro Processing: With the impending arrival of the second agricultural revolution in Gujarat, agro processing would emerge as a significant opportunity for medium and large enterprises. The implementation of the Narmada project, whenever it happens, would bring in new opportunities in the area of agriculture linked projects and consumer goods. This could be expected to have multiplier effects in industrialising the state. Studies are to be initiated individually or jointly by the promotional agencies to assess the industrial impact of the Narmada project and identify opportunities well in advance.

Service Sector

As the economy grows, the opportunities in the service sector will increase. Projects in health care, hotels, technical and managerial consultancy, software development, industrial design bureaus, etc., should be looked into.

IMPERATIVES OF NEW STRATEGY

What are the imperatives of the new strategy? The opportunities are in strengthening the existing industrial base of Gujarat by encouraging the existing enterprises to expand, and building new bases by encouraging new enterprises to get in and existing enterprises to diversify or forge strategic alliances, among different enterprises. The following paragraphs provide the answers.

Creating Competence:

The future industries are going to be capital and skill intensive. Hence it is not enough if Gujarat becomes financially sound. It has to develop an appropriate educational infrastructure to develop the skills in the state. This would call for the modernisation and upgradation of the educational systems at all levels from secondary schools to professional institutions like the ITI and the engineering colleges. It should be recalled at this stage that the entrepreneurs have identified lack of an adequate infrastructure as one of the constraints in Gujarat.

State wise Data base on Linkages and Competences

A state wise study of the various linkages established by the industrial units in Gujarat needs to be carried out and a state wide data base of industrial linkages and competences available be created for generating options for building synergy, strategic alliances, and new industrial opportunities.

This should be supplemented by a database on the opportunities available to commercial and non-commercial enterprises to build new competences.

Modernisation of the Industrial Estates:

The industrial estates set up in the early period of industrialisation need to be modernised by providing adequate communication facilities. Their infrastructure should be renovated. The existing owners of the industrial sheds in these estates should be involved in this process.

Strengthening the Capital and Capability Base of Promotional Institutions

The new strategy would call for increasing the capital base of the promotional institutions. It is unlikely that the budgetary resources of the state would be sufficient. It is, therefore, recommended that these institutions should go to the capital market and raise funds in the form of both equity and debt including debentures and deposits. They could start mutual funds and generate resources. This is possible because over the years the institutions have developed a reputation for themselves.

These institutions should also be permitted to go in for tie up arrangements with external agencies like International Finance Corporation for raising foreign currency resources. The experience of the Gujarat Venture Finance Corporation in tying up with the World Bank can be a lesson for embarking on such ventures.

A capability audit of these organisations needs to be carried out to identify the gap between the capabilities required for the new role and those presently available. This audit would help in formulating capability development strategies for bridging the gap.

SUMMING UP

Gujarat's achievements on the industrial front need to be strengthened further by creating and exploiting new opportunities. The recent developments in the overall business environ-

ment across the country would generate such opportunities. The need is to develop the right mix of strategic elements so as to take up the challenge and forge ahead towards attaining the industrial leadership of the country at international standards.