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CENSUS OF INDIA 1961

VOLUME V

GUJARAT

PART I-A(iii)

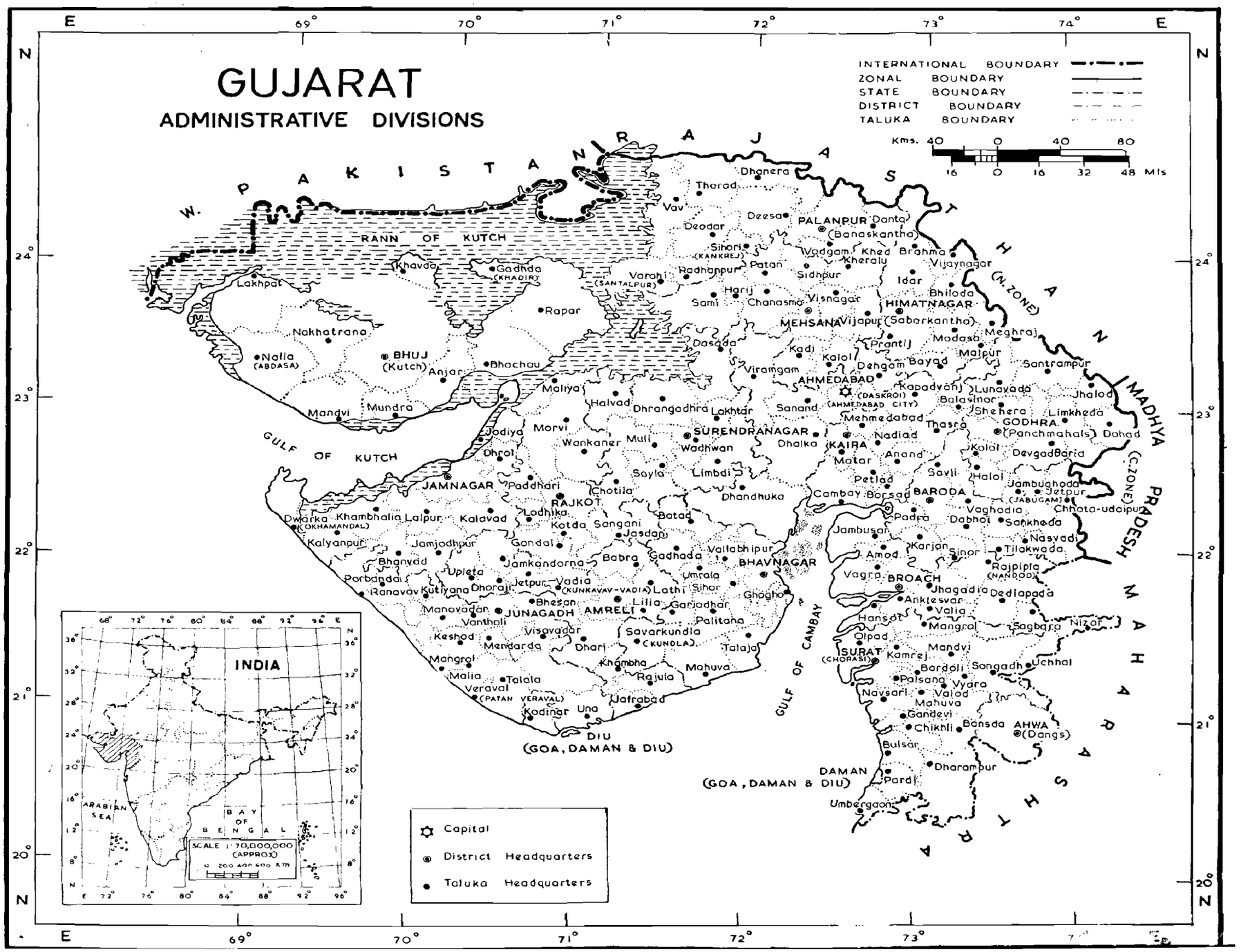
GENERAL REPORT ON THE CENSUS

ECONOMIC TRENDS AND PROJECTIONS

R. K. TRIVEDI

Superintendent of Census Operations, Gujarat

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PREFACE

The General Report on the Census of 1961 forms Part I of the Census of India Series Volume V–Gujarat. It is a voluminous document which analyses the vast statistical material collected, compiled and tabulated into numerous main, subsidiary and inset tables supplemented by official statistics, wherever necessary. In view of this it has become necessary to publish it in three sub-parts, namely,

Part I–A (i) Chapters I to V including "Census Operations 1961"

Part I–A (ii) Chapters VI to XI

Part I–A (iii) Chapter XII—Economic Trends and Projections

The present volume is Part I–A(iii)–Economic Trends and Projections. It is being published earlier than the other two sub-parts, which are in the press, in view of its importance at the present juncture when the State and the country are busy with the formulation of the Fourth Five Year Plan. This sub-part, therefore, bears a separate series of page numbers commencing from 1.

This volume sets up a new landmark in the census history of India by adding a new chapter which correlates the census data with the official statistics, and attempts to present a realistic picture of the various phases of economic activities of the people, assess the impact of Five Year Plans and indicate future trends and projections. Such a task has indeed been beset with numerous difficulties and handicaps owing to the non–availability of comparable data not only for the State as a whole which came into existence only in 1960, but also for its component administrative units made up of parts of former districts, various Princely States and Estates. All possible efforts have, however, been made to tap all available sources of information, official, semi–official as well as non–official to all of whom I am grateful. The sifting of all this material, their checking, comparing with corresponding sources and presentation in proper form have entailed much patience and industry assiduously bestowed by my office staff. Mention in particular should be made of Shri K. F. Patel and Shri K. P. Yajnik, Deputy Superintendents, Shri U. D. Vora, Research Officer, Shri V. A. Dhagia and Shri R. M. Vankani, Tabulation Officers. I would also like to repeat my sentiments expressed in the Foreword of Part I–A(i) and express my gratitude to Shri Asok Mitra, Registrar General and ex–officio Census Commissioner, whose direction and guidance have made this volume what it is.

If I have been able to comply with the wishes of the Registrar General in bringing out this publication as a special volume without delay—within a fortnight—, it is to no small extent due to the creditable performance of the Navajivan Press, Ahmedabad, under the able guidance of its experienced Manager, Shri Dhirubhai Naik and the conscientious work put in by my Head Proof Reader, Shri M. P. Jacob.

Lastly, it should be made clear that the opinions expressed in this report are those of the writer in his personal capacity and do not in any way reflect the policy of Government.

R. K. TRIVEDI,
Superintendent of Census Operations,
Gujarat.

AHMEDABAD,
18th August, 1965

CHAPTER XII

ECONOMIC TRENDS AND PROJECTIONS

PART-INTRODUCTORY

SECTION 1

THE ROLE OF THE CENSUS—PAST AND PRESENT

PRELIMINARY REMARKS

1. The role of the census in the past has been mainly confined to the collection and analysis of demographic data, the review of other aspects being of secondary importance. The Census Report, therefore, ended with the analysis of the main tables as well as some subsidiary tables needed for the purpose. Such a treatment of the census statistics was limited in part by the nature and volume of data collected and the objective with which they were compiled and presented for public consumption. Such an analysis also suited the then Government whose sole responsibility was preservation of law and order and some semblance of development which later influenced the collection of economic data. But the census of a free nation aims at something more and has altogether a different objective. It aims at the collection of a greater range of data, more numerous and widespread in their coverage and content to meet the growing needs of the country's planning and developmental activities. It is this objective which the Registrar General kept in view, while framing the various schedules for the Census of 1961 which has been instrumental in throwing a large variety of data covering various fields of national life and activity. The ambitious programme which the current census has undertaken has yielded wealth of statistical information so very essential not only for the formulation of the country's plans but also for assessing and evaluating their progress, as will be seen from the vast material presented in numerous main, subsidiary as well as inset tables the Census of 1961 has compiled and published. Such an effort carries with it the added responsibility of departing from the orthodox practice of analysing the census statistics and presenting to the public the various trends and projections observable in the people's march towards economic progress, as revealed by various levels of consumption and production and the extent to which available resources, human as well as material, have been exploited for the general well-being. In the ultimate analysis, it is the mode of application of the country's working force and creation of capital resources which govern the economic activities of the people resulting in production of goods and services, which in turn determine the standard of living and happiness the people have been able to achieve. This Chapter will attempt a survey of the broad aspects of economic trends and projections which govern the rate at which the State is progressing and the levels of consumption and production are advancing, as judged from the fulfilment of targets, physical as well as financial. Such a task calls for the survey of trends working over time without which any projection for the future is seriously handicapped. For, it is not the census statistics alone, but the official statistics as well which are needed to arrive at a correct estimate of the economic, social and cultural advance of the people by assessing the impact the various Five Year Plans have made in the various fields of agriculture, industry, transport and communications and social services. The absence of comparable data from which the census statistics suffer is equally a feature which also characterises the official statistics which are not available for the period preceding the formation of the new State of Gujarat, owing to frequent territorial changes to which the various administrative units have been subjected at the time of integration, reorganisation,

bifurcation and even thereafter. This handicap has been more acutely felt in case of statistics relating to financial provision, targets and achievements of the First and Second Five Year Plans. For the schemes formulated for the various areas now forming part of Gujarat State were included in the general plans of different States which framed their plans as a whole and not for any constituent units. Every endeavour has, however, been made to collect all the data that can be had from all available sources so as to present a true and correct picture of the economic progress the State has made during the past decennium and bids fare to make in the future.

2. This Chapter deals with observable economic trends and conditions of the people of Gujarat and tries to assess economic progress in terms of levels of production and consumption. It is subdivided in 4 parts, namely,

Part A—People at work in the State

Part B—Investment and outlay in the State during the last 10 years

Part C—Output and income and

Part D—Concluding remarks.

3. Before reviewing the various aspects aforementioned, it would be useful to have a general background of the State economy, in order to properly appreciate and understand the discussion that follows. For, after all, the economic structure of a State is what its people make it to be. It is the sum total of the various economic activities directed towards the production of goods and services.

4. The State of Gujarat extends over an area of 71,055.8 sq. miles or 184,034.5 sq. km. inhabited by 20.6 millions—10,633,902 males and 9,999,448 females. Of these, 74.23 per cent live in villages and 25.77 per cent in towns.

AGRICULTURE

5. Agriculture is the basic industry of Gujarat, engaging as it does 81.5 per cent of the total working force in the State. The agricultural economy of the State is further distinguished by its mixed character which combines cultivation with animal husbandry which is one of the important industries providing means of livelihood to a section of those living in the countryside. Animal husbandry has made significant progress in the field of dairy farming which counts among others the Kaira District Cooperative Milk Producers' Union well-known all over the country for its products bearing the trade mark of Amul. The principal food crops in the State are millets, rice, wheat and maize and the principal commercial crops are oilseeds, groundnut in particular, cotton and tobacco. Of the total area under cultivation 43.8 per cent are claimed by food crops and 56.2 per cent by non-food crops. In the overall acreage, grazing and pastures so very essential for a thriving livestock industry account for 7.72 per cent under grasslands, pastures and current fallows and 9 per cent under forest. While the average size of a holding per land-holder comes to 20 acres in Peninsular Gujarat, it is reduced to 8 acres in Mainland Gujarat, giving an average of 10.8 acres per land-holder and 1.57 acres *per capita* of the population living in villages. The estimated production of foodgrains in the State is 1,523 thousand tons as against a total requirement of 2,960 thousand tons giving a deficit of 1,437 thousand tons.

6. As already seen in Chapter X, the average size of a holding per cultivating family comes to 26 acres in Peninsular Gujarat as against 10 acres in Mainland Gujarat. The distribution of holdings by size class shows that 10.15 per cent of the holdings belong to the size class 5 acres and less held by 34.93 per cent of the cultivating families, 25.74 per cent of holdings in the size class 6 to 15 acres are owned by 37.17 per cent of the cultivating families, and the rest exceeding 15 acres account for 64.11 per cent of the land under cultivation and 27.90 per cent of the cultivating households. The disparity in the average size of a holding per cultivating family in Peninsular and Mainland Gujarat is the result of their political past. Fragmentation of holdings which operated to a far greater extent in the former British districts, Baroda territory and some of the Indian States where peasant proprietorship carried with it the right of inheritance, succession and tranfer has been responsible for the parcelling of land year after year and

making the holdings uneconomic. But these rights being absent in most of the Princely areas, the possibility of fragmentation was remote and the holdings for the most part remained intact.

7. Between 1951–61 the land economy of Gujarat underwent far reaching changes. The orthodox land system prevalent in most of the areas of the erstwhile Princely States was marked by tenancy-at-will, high incidence of crop share payable as land revenue coupled with a number of other levies and exactions which deprived the cultivators of the fruits of their own labour, resulting in the impoverishment of land resources as the peasantry had no charm in its work. The land reforms and tenancy legislation which have been implemented during the past decade have had far reaching consequences on the economic condition of the countryside by placing the agriculturists firmly on the land by removing all intermediaries and establishing direct relation with the State. Tenancy has been abolished and the tenant has become the occupant of the land tilled by him, as in the ryotwari system prevalent in the former British districts. The principle that land belongs to the tiller has been fully and completely translated into action by legislative reforms introduced after Independence, with beneficial effects on the village economy and cultivation of land.

Full details of the various measures of land reforms implemented in the different areas of the State have been reviewed in Chapter I, Part B—Background Material.

PANCHAYAT RAJ

8. The institution of panchayats is an ancient institution in India. In olden times it was known as village panchayat in rural areas and 'Mahajan' in urban areas. Every caste and community also had a panchayat which looked after its social affairs and differed widely in scope, jurisdiction and functions from the former. However, its ultimate objective was to promote the common good of the community it served. After Independence, laying of firm foundation for the development of democracy called for transformation of the social and economic life of the countryside. For this purpose, it was considered necessary to evoke popular initiative and create appropriate local leadership, so that better living conditions could be promoted with the efforts of the people at large. The Balwantray Mehta Committee appointed by the Planning Commission in 1956, for examining the working of the Community Development Programme and related matters recommended democratic decentralisation of administration at various levels. In pursuance of these recommendations, Government is to divest itself completely of a large measure of its existing duties and responsibilities and devolve them on local bodies in three tiers democratically constituted at village, taluka and district levels which will have the entire charge of all development activities within their respective jurisdiction reserving to the State only the functions of maintenance of law and order as well as guidance, supervision and higher planning. The Government of Gujarat has done commendable work in this direction by enacting the Gujarat Panchayats Act, 1963, details of which have already been discussed in Chapter I.

INDUSTRIES

9. The industrial development of the State started with mechanisation of the cotton textile industry which gives to Gujarat in general and the city of Ahmedabad in particular a place of pride by earning for the latter the attribute of the Manchester of India. Other industries which are gradually developing and raising the pace of industrialisation in the State are chemicals, pharmaceuticals, dyes and paints, cement, vegetable products, engineering ancillary to the textile machinery and glass. Besides organised industries, small-scale and cottage industries, for which Gujarat has been so well-known since olden times, play a very important part in the economy of the State. Handloom weaving, the counterpart of textile manufacture, occupies an important position in Gujarat. A host of village artisans and craftsmen engaged in the operation of traditional crafts like carpentry, smithy, leather works, processing of foodstuff, etc., is another feature of the handicraft economy which still persists in villages and towns. Among the most notable and reputed cottage industries may be noted *jari* industry of Surat, *patolas* of Patan, cotton fabrics of Ahmedabad and Cambay, knives and nutcrackers of Kutch and agate industry of Cambay, the products of which were in demand far and wide outside the borders of

the State and the country. Small-scale manufacturers include within its fold (i) light engineering industries which are making good progress at Ahmedabad, Baroda, Rajkot and Jamnagar, (ii) optical industry at Baroda, (iii) power-loom industry at Surat and Cambay and other places, (iv) pottery works at Morvi, Jamnagar, Sihor and Than, and a number of other industries which are gradually coming up in the wake of encouragement from the State and the Centre. Gujarat has a bright future and can hope for rapid industrial progress in the years to come, when all the latent resources of mineral oil and natural gas are explored and exploited. The starting of the Koyli Refinery Project which is being set-up by the Government of India in the vicinity of Baroda is expected to go into production by the middle of 1965. The Fertilizer Plant which is being started by the State Government in the public sector will also start working next year. These are new phases of development which augur well for the industrial future of Gujarat. Besides promoting petro-chemical industries, the gas fields will ensure even economic growth by overcoming one of the most serious handicaps in the form of acute short supply of power, which is at present restricted to high cost thermal power.

ZONES OF REGIONAL DEVELOPMENT

10. Finally, before we proceed to examine the economic trends and projections in all their bearings, it would be worthwhile to distinguish the various zones of regional development, characterised by common features like geographical contiguity, similarity of soil, rainfall and climatic conditions, pattern of living, material prosperity, and political conditions prevalent in the past. On this basis, Gujarat can be subdivided into three distinct zones of development, namely—

(i) Former British districts and the territory of Baroda State now comprised in the districts of Kaira, Ahmedabad, Mehsana, Baroda, Broach and Surat,

(ii) Peninsular Gujarat exclusive of Kutch and

(iii) Districts of Kutch, Banaskantha, the Panchmahals, Sabarkantha and the Dangs, i.e., tribal areas on the eastern border and Gujarat States added to the former British districts at (i) above at the time of integration.

11. These broad subdivisions will be helpful in appreciating the relative backwardness and levels of development in the different regions now forming part of the State of Gujarat and assessing the requirements of each of them to achieve progress on a uniform basis.

PART A—PEOPLE AT WORK

SECTION 2

THE WORKING FORCE

DECADE VARIATION

12. The following table gives the percentage variation in working population by sectors during the decade for India and Gujarat.

STATEMENT XII.1

Variation in working population by industrial sectors for India and Gujarat between 1951-61

Sectors	India			Gujarat		
	Working population 1951	Working population 1961	Percentage increase or decrease 1951-61	Working population 1951	Working population 1961	Percentage increase or decrease 1951-61
1	2	3	4	5	6	7
All sectors	**139,521,180**	**188,417,362**	**+35.05**	**6,573,901**	**8,474,588**	**+28.91**
Primary sector	*98,100,172*	*136,182,567*	*+38.82*	*4,413,647*	*5,875,910*	*+33.13*
Category I	69,792,002	99,509,963	+42.58	2,951,939	4,519,060	+53.09
Category II	27,510,637	31,482,305	+14.44	1,225,452	1,252,000	+ 2.17
Category III	797,533	5,190,299	+550.79	236,256	104,850	—55.62
Secondary sector	*17,347,109*	*22,043,150*	*+27.07*	*724,716*	*1,181,808*	*+63.07*
Category IV	..	12,031,087	..	..	555,606	..
Category V	..	7,956,614	..	..	536,159	..
Category IV+V	15,879,153	19,987,701	+25.87	674,471	1,091,765	+61.87
Category VI	1,467,956	2,055,449	+40.02	50,245	90,043	+79.21
Tertiary sector	*24,073,899*	*30,191,645*	*+25.41*	*1,435,538*	*1,416,870*	*— 1.30*
Category VII	7,309,749	7,640,045	+ 4.52	409,501	411,156	+ 0.40
Category VIII	2,136,446	3,003,190	+40.57	99,849	159,061	+59.30
Category IX	14,627,704	19,548,410	+33.64	926,188	846,653	— 8.59

NOTE:

Category I=As Cultivator, II=As Agricultural labourer, III=In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and Allied activities, IV=At Household Industry, V=In Manufacturing other than Household Industry, VI=In Construction, VII=In Trade and Commerce, VIII=In Transport, Storage and Communications, IX=In Other Services

The total working force in the State which was 6,573,901 in 1951 rose to 8,474,588 or by 28.91 per cent in 1961. This increase in the labour force of the State is found to be commensurate with the rate of increase in the general population (26.88 per cent) during the past decade. Corresponding increase in the all-India working force is 35.05 per cent. Increase in the working force engaged in different sectors of industry between 1951–61 shows an addition of 33.13 per cent in the primary sector, 63.07 per cent in the secondary and a decrease of 1.30 per cent in the tertiary sector. The trends disclosed by all-India figures are somewhat different in that increase in the working force is spread over all its sectors—38.82 per cent in the primary, 27.07 per cent in the secondary and 25.41 per cent in the tertiary. These variations in the working force of the country and the State represent certain definite trends in their economic growth. While the primary sector has risen more or less in the same manner, a little higher in the country than in the State, development of the secondary sector, as judged from the percentage of increase in the working population, is far more rapid than in the country as a whole. The tertiary sector which reveals a slight decline in Gujarat over the figure of 1951 has added 25 per cent to the

working population of the country engaged in professions and services a decade ago probably due to the expansion of various services and allied activities in the public sector. A distinct fall in the working force engaged in Industrial Category III relating to animal husbandry, quarrying, mining, forestry, fishery, etc., which has dwindled down by 55.62 per cent in the State as against an increase of 551 per cent in all-India is worth notice. The decline in the State working force employed in this sector may be attributed to the introduction of land reforms and tenancy legislation, which have made the former tenants-at-will occupants of the land held by them from their landlords. Since animal husbandry is also combined with cultivation of land, a number of persons engaged in that industry and also working as tenants acquired a superior status as regards their land holding by becoming occupants which they have returned in preference to their other status of cattle-breeders. This is also amply borne out by an increase of 53.09 per cent of the working force engaged in cultivation of land. This phenomenon has also operated in case of agricultural labourers, whose share in the working force has increased by only 2.17 per cent. The significant progress, however, made by the secondary sector shows that while manufacturing industries have raised their working force by 61.87 per cent, construction activities which are going on alround the State made a still greater contribution by adding 79.21 per cent to its working population in 1951. In the tertiary sector, the tempo of developmental activities necessitating the expansion of transport and communication services in the various fields of planning is high-lighted by an increase of 59.30 per cent in the working population of Industrial Category VIII, against the background of an overall decrease of 1.30 per cent during the past decennium. The above analysis shows some of the important trends at work in the economic structure of Gujarat during the past decennium, viz.,

(i) While cultivation of land still continues to be the premier industry of the State, implementation of land reforms has added nearly one-third to its working population returned in the primary sector in 1951;

(ii) The growing expansion of industries and the active interest the State Government has been taking to stimulate their growth have brought about an addition of nearly two-thirds to its working force in secondary sector in 1951.

DISTRIBUTION BY AGE

13. The following table gives percentage of working force to total population in broad age-groups in the (i) State and (ii) districts.

STATEMENT XII.2

Percentage of working force to population in the broad age-groups in (1) the State and (2) Districts, 1961

State/District	Total	Age-groups					
		0–14	15–34	35–59	15–59	60+	Age not stated
1	2	3	4	5	6	7	8
GUJARAT	**41.07**	**6.93**	**67.16**	**72.51**	**69.22**	**40.28**	**26.93**
1 Jamnagar	37.10	7.40	64.08	65.20	64.49	31.87	17.67
2 Rajkot	39.26	8.22	66.55	68.38	67.23	32.55	37.50
3 Surendranagar	37.75	6.54	65.24	66.50	65.72	31.73	24.46
4 Bhavnagar	38.83	6.77	66.28	69.02	67.29	34.21	40.58
5 Amreli	44.34	9.07	76.15	75.46	75.89	39.25	21.32
6 Junagadh	42.52	7.93	71.74	73.73	72.47	37.74	15.15
7 Kutch	38.83	6.49	64.32	68.55	66.05	38.99	30.84
8 Banaskantha	45.25	11.60	75.06	73.79	74.59	36.11	18.36
9 Sabarkantha	45.57	8.71	76.14	78.08	76.87	37.79	27.55
10 Mehsana	42.81	5.18	70.98	76.93	73.38	39.47	28.45
11 Ahmedabad	34.43	2.79	53.40	65.26	57.85	32.45	17.18
12 Kaira	34.59	3.31	54.67	63.92	58.31	43.09	31.18
13 Panchmahals	51.31	13.44	82.73	85.69	83.87	46.61	28.72
14 Baroda	38.39	5.55	60.79	68.09	63.67	41.34	28.18
15 Broach	45.60	7.83	74.05	80.13	76.49	52.67	29.38
16 Surat	44.37	6.53	71.44	78.90	74.49	51.40	33.44
17 Dangs	54.72	13.97	91.73	93.35	92.31	68.45	66.67

The total strength of economically active persons in the State comes to 41.07 per cent as against 42.98 per cent for the country as a whole. This percentage varies from one district to another, the highest being 54.72 per cent in the Dangs and the lowest (34.43) in Ahmedabad and 34.59 in Kaira. The State average is exceeded in 9 districts, namely, the Dangs, the Panchmahals, Banaskantha, Sabarkantha, Broach, Surat, Amreli, Mehsana and Junagadh. The causes responsible for this variation are social and economic and are further influenced by extent of urbanisation and industrialisation in a district. The districts which are economically backward possess low degree of literacy, are comparatively less urbanised and generally show higher proportions of workers in their total population. Predominantly tribal areas like the Panchmahals and the Dangs show the highest percentages of workers, whereas districts like Ahmedabad and Kaira, which are economically better off and where the standard of literacy is also relatively high have returned low percentages of workers in their total population. That these percentages are also influenced by the percentages of child employment will be seen from the fact that the districts where the extent of labour force is larger are also the districts where child employment is relatively greater. As against 6.93 per cent of the total population aged 0–14, returned as workers in the general population of the State, Banaskantha, the Panchmahals and the Dangs respectively account for 11.60, 13.44 and 13.97 per cent of their child population employed in gainful work. Similar percentages are, however, found to be the least in districts like Ahmedabad (2.79 per cent) and Kaira (3.31 per cent) where the total strength of the working force is also correspondingly low. Employment of children, as already seen in Chapter X, is dependent on a variety of factors, the most important among them being the necessity to avail of the assistance of children in the household occupation, be it agriculture or household industry. It is also in these sectors of the population, that school enrolment is comparatively at a lower level. Since school-going children belong to ages 0–14, no such person would be returned as worker in a modern society. But the conditions are different in underdeveloped countries where the level of education varies according to the level of farming and household industries. It is for this reason that the districts which are economically better off show greater strength of children attending school as against others where economic activities are mainly confined to farming and animal husbandry which favour child employment and reduce the proportion of school enrolment. The same factors are also at work in varying the percentages of adolescent and adult workers aged 15–59, whose strength in the economically active population is generally higher in the districts which are either agriculturally backward or predominantly tribal. The Dangs district which is exclusively tribal and comprised of forest areas vividly illustrates this point by returning 92.31 per cent of its population aged 15–59 as economically active in contrast to Ahmedabad which has 57.85 per cent workers at these ages. In advance years also, people in such backward tracts are prone to keep themselves employed, as it is not possible for them to cease working because their assistance in the family cultivation cannot be dispensed with.

The above observations are also supported by the distribution of working force in broad age categories examined below.

Utilisation of Man-power

14. Any review of economic resources must take account of the most important of all the factors of production, namely, human resources as determined by its working force and its relative utilisation in gainful pursuits in different sectors of industries. Statements XII.3, XII.4 and XII.5 given on page 8 have been prepared to facilitate such a study.

Age structure plays a very important part in determining the extent of labour force, which in turn is dependent upon a number of factors correlated to the stages of economic development of different tracts. Distribution of the working force into broad categories shows that 7.24 per cent are contributed by children below 15 years, nearly 88 per cent by persons of working ages and 4.85 per cent by older people aged 60 and over. There is not a single district in Peninsular Gujarat where the percentage of children in the working population is less than 7 per cent. In Mainland Gujarat, it exceeds 10 per cent in Banaskantha, the Pancmahals and the Dangs, but is less than

STATEMENT XII.3

Percentage distribution of working force in broad age-groups in (1) the State and (2) Districts, 1961

State/District	Age-groups					
	0–14	15–34	35–59	Total of 15–59	60+	Age not stated
1	2	3	4	5	6	7
GUJARAT	**7.24**	**52.34**	**35.55**	**87.89**	**4.85**	**0.02**
1 Jamnagar	8.96	54.66	31.83	86.49	4.54	0.01
2 Rajkot	9.30	53.66	32.75	86.41	4.28	0.01
3 Surendranagar	7.70	54.43	33.78	88.21	4.06	0.03
4 Bhavnagar	7.69	54.39	33.25	87.64	4.64	0.03
5 Amreli	9.02	53.97	32.04	86.01	4.93	0.04
6 Junagadh	8.14	54.85	32.48	87.33	4.52	0.01
7 Kutch	7.12	49.71	36.39	86.10	6.73	0.05
8 Banaskantha	11.21	53.65	31.46	85.11	3.66	0.02
9 Sabarkantha	8.33	54.81	33.50	88.31	3.35	0.01
10 Mehsana	5.09	51.87	37.95	89.82	5.07	0.02
11 Ahmedabad	3.29	53.60	39.34	92.94	3.76	0.01
12 Kaira	3.99	50.91	38.60	89.51	6.47	0.03
13 Panchmahals	11.51	51.08	33.46	84.54	3.94	0.01
14 Baroda	6.03	51.41	37.51	88.92	5.03	0.02
15 Broach	7.44	50.41	36.68	87.09	5.46	0.01
16 Surat	6.25	49.70	37.90	87.60	6.12	0.03
17 Dangs	12.00	53.69	30.31	84.00	3.99	0.01

NOTE:

Figures for 1951 are not available.

STATEMENT XII.4

Working force of the State by industrial sectors, 1901–1961

Year	Total	Primary Sector I, II & III	Secondary Sector IV, V & VI	Goods Producing Sector (3+4)	Tertiary Sector VII, VIII & IX
1	2	3	4	5	6
1961	8,474,588	5,875,910	1,181,808	7,057,718	1,416,870
1951	6,573,901	4,413,647	724,716	5,138,363	1,435,538
1931	4,839,202	3,589,556	552,561	4,142,117	697,085
1921	4,026,034	2,793,096	557,053	3,350,149	675,885
1911	4,377,563	3,088,385	573,223	3,661,608	715,955
1901	3,541,925	2,046,054	628,050	2,674,104	867,821

STATEMENT XII.5

Percentage distribution of working force in the industrial sectors of the State, 1901–1961

Year	Total	Primary Sector I, II & III	Secondary Sector IV, V & VI	Goods Producing Sector (3+4)	Tertiary Sector VII, VIII & IX
1	2	3	4	5	6
1961	100.00	69.33	13.95	83.28	16.72
1951	100.00	67.14	11.02	78.16	21.84
1931	100.00	74.18	11.42	85.60	14.40
1921	100.00	69.37	13.84	83.21	16.79
1911	100.00	70.55	13.09	83.64	16.36
1901	100.00	57.77	17.73	75.50	24.50

NOTE:

Category I=As Cultivator, II=As Agricultural labourer, III=In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, Orchards, and Allied activities, IV=At Household Industry, V=In Manufacturing other than Household Industry, VI=In Construction, VII=In Trade and Commerce, VIII=In Transport, Storage and Communications, IX=In Other Services

5 per cent in Ahmedabad and Kaira. In the youthful and adult ages, the State average for persons at work is exceeded by only one district, namely, Surendranagar in Peninsular Gujarat, but the number of such districts increases in Mainland Gujarat and includes such areas as Sabarkantha, Mehsana, Ahmedabad, Kaira and Baroda. While this percentage is nowhere less than 84, it is the highest in Ahmedabad (92.93 per cent), but the lowest in the Dangs (84 per cent) and the Panchmahals (84.55 per cent). The employment of the older people varies between 3.35 per cent in Sabarkantha and 6.73 per cent in Kutch. The districts where such employment is comparatively much less are Banaskantha, Sabarkantha, Ahmedabad, the Panchmahals and the Dangs. The percentage of children in the total working population is comparatively greater in the tribal and backward areas like the Dangs, the Panchmahals Banaskantha and Sabarkantha, but the least in the highly urbanised areas of Ahmedabad and the agriculturally prosperous district of Kaira, where the level of cultivation and the pace of industrialisation are also higher. Literacy is also another factor which influences the employment of children which is greater in areas where the proportions of school-going children and literacy are seen to be comparatively low. Greater advance in education and promulgation of laws of social security, which restrict the employment of persons of certain ages, would substantially decrease the proportions of children and older persons in the working force in the years to come.

15. Distribution of the working force between primary, secondary and tertiary sectors shows the basically agricultural nature of the State economy wherein primary activities play the most important part by contributing 69.33 per cent to the working population. Between the secondary and tertiary, the latter is more important than the former, as revealed by their respective percentages, 13.95 and 16.72. The total labour force working in the production of goods, however, comes to 83.28 per cent, only one-sixth of which is engaged in non-agricultural pursuits. The shift from one sector to another and the extent to which industrialisation has progressed over time can be gauged by comparing the proportion of working force in various sectors since 1901. But such a comparison is not possible owing to the non-comparable nature of the data due to the changes in the concept and definition of persons at work returned at different censuses. Some indication of the trend towards industrialisation is, however, available from the percentages of working force in different sectors of industry between 1951 and 1961. Increase from 11.02 to 13.95 per cent is noteworthy in the secondary sector; there is also an increase of a little over 2 per cent in the working force engaged in the primary sector; the corresponding decline in the tertiary sector, therefore, is from 21.84 to 16.72 per cent. The latter increase, it must be pointed out, is due to the implementation of land reforms on the one hand and the liberal definition of workers in 1961 on the other which unlike the past also accounts for unpaid and part-time family workers. The trend towards increase in industrialisation is, however, unmistakable and shows the results of efforts made since Independence for the establishment of various new industries and expansion of those in existence in the past.

DISTRIBUTION OF WORKING FORCE BY INDUSTRIAL SECTOR 1951–61

16. The four tables that follow give the absolute and proportionate distribution of working force by district for the Censuses of 1961 and 1951. While giving an idea of the utilisation of human resources in different economic activities, namely, agriculture, animal husbandry, mining, forestry, manufacturing, commerce, transportation and services, they also enable us to ascertain the increase in the strength of economically active persons and assess the progress made by various sectors in the light of changes recorded in their distribution.

The total strength of the working force in the State has increased from 6,573,901 to 8,474,588, a net gain of 1,900,687 or 28.91 per cent as against 35.05 per cent for the country as a whole.

17. Scrutiny of Statements XII.8 and XII.9 giving percentage distribution of working force in the country and the State by the sectors shows that as against 70.31 per cent of the total working population in the country engaged in primary activities in 1951, Gujarat has 67.14 per cent; while the all-India figure has risen to 72.28 per cent the State percentage has advanced to 69.34 in 1961.

STATEMENT XII.6

Distribution of working force by district, 1961 (Actual Numbers)

State/District	Total	Primary Sector			
		I	II	III	Total for Primary Sector
1	2	3	4	5	6
GUJARAT	**8,474,588**	**4,519,060**	**1,252,000**	**104,850**	**5,875,910**
1 Jamnagar	307,375	165,237	19,161	7,049	191,447
2 Rajkot	474,423	252,641	37,209	7,756	297,606
3 Surendranagar	250,367	122,981	31,510	4,407	158,898
4 Bhavnagar	434,721	203,854	63,486	5,490	272,830
5 Amreli	296,097	175,683	44,111	4,252	224,046
6 Junagadh	529,598	303,476	59,095	10,030	372,601
7 Kutch	270,454	128,823	31,228	4,238	164,289
8 Banaskantha	450,798	322,377	28,061	9,632	360,070
9 Sabarkantha	418,562	310,353	28,640	4,284	343,277
10 Mehsana	723,472	396,697	72,993	5,099	474,789
11 Ahmedabad	760,918	178,136	78,017	3,627	259,780
12 Kaira	684,038	375,457	117,624	4,576	497,657
13 Panchmahals	753,770	633,848	30,248	5,624	669,720
14 Baroda	586,342	253,395	162,316	4,363	420,074
15 Broach	406,743	185,892	144,387	3,700	333,979
16 Surat	1,087,749	484,119	295,387	19,201	798,707
17 Dangs	39,161	26,091	8,527	1,522	36,140

State/District	Secondary Sector			Tertiary Sector			
	IV & V	VI	Total for Secondary Sector	VII	VIII	IX	Total for Tertiary Sector
1	7	8	9	10	11	12	13
GUJARAT	**1,091,765**	**90,043**	**1,181,808**	**411,156**	**159,061**	**846,653**	**1,416,870**
1 Jamnagar	46,594	3,766	50,360	17,437	9,468	38,663	65,568
2 Rajkot	68,473	7,099	75,572	28,739	11,555	60,951	101,245
3 Surendranagar	42,368	2,328	44,696	12,421	4,004	30,348	46,773
4 Bhavnagar	63,616	5,465	69,081	25,722	11,683	55,405	92,810
5 Amreli	29,896	2,475	32,371	10,906	2,578	26,196	39,680
6 Junagadh	55,400	5,965	61,365	28,526	9,950	57,156	95,632
7 Kutch	40,158	6,037	46,195	14,290	7,013	38,667	59,970
8 Banaskantha	37,011	5,696	42,707	15,912	3,574	28,535	48,021
9 Sabarkantha	25,611	4,683	30,294	13,947	2,344	28,700	44,991
10 Mehsana	117,733	5,190	122,923	37,218	10,647	77,895	125,760
11 Ahmedabad	258,357	13,248	271,605	78,894	28,860	121,779	229,533
12 Kaira	74,535	6,398	80,933	31,441	9,586	64,421	105,448
13 Panchmahals	28,027	1,924	29,951	14,440	9,864	29,795	54,099
14 Baroda	56,449	4,159	60,608	27,878	12,938	64,844	105,660
15 Broach	22,106	2,697	24,803	13,123	3,986	30,852	47,961
16 Surat	124,953	12,597	137,550	39,866	20,809	90,817	151,492
17 Dangs	478	316	794	396	202	1,629	2,227

NOTE:

Category I=As Cultivator, II=As Agricultural labourer, III=In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and Allied activities, IV=At Household Industry V=In Manufacturing other than Household Industry, VI=In Construction, VII=In Trade and Commerce, VIII=In Transport, Storage and Communications, IX=In Other Services

STATEMENT XII.7

Distribution of working force by district, 1951 (Actual numbers)

India/State/District	Total	Primary Sector			Total for Primary Sector
		I	II	III	
1	2	3	4	5	6
All-India	**139,521,180**	**69,792,002**	**27,510,637**	**797,533**	**98,100,172**
GUJARAT	**6,573,901**	**2,951,939**	**1,225,452**	**236,256**	**4,413,647**
1 Jamnagar	248,390	96,167	48,506	17,353	162,026
2 Rajkot	373,168	177,009	29,536	23,104	229,649
3 Surendranagar	209,145	80,967	30,612	15,896	127,475
4 Bhavnagar	343,616	141,780	42,840	18,247	202,867
5 Amreli	201,786	76,286	43,303	7,896	127,485
6 Junagadh	412,067	139,156	113,139	18,072	270,367
7 Kutch	229,840	77,838	31,741	16,664	126,243
8 Banaskantha	358,824	263,922	13,859	14,533	292,314
9 Sabarkantha	304,988	200,202	39,204	5,423	244,829
10 Mehsana	548,281	290,809	64,162	29,244	384,215
11 Ahmedabad	609,185	118,494	68,134	21,474	208,102
12 Kaira	602,513	296,367	148,294	13,328	457,989
13 Panchmahals	548,288	441,563	41,198	6,542	489,303
14 Baroda	498,760	178,582	154,743	6,147	339,472
15 Broach	289,356	80,574	130,755	3,579	214,908
16 Surat	774,644	278,301	224,228	17,443	519,972
17 Dangs	21,050	13,922	1,198	1,311	16,431

India/State/District	Secondary Sector		Total for Secondary Sector	Tertiary Sector			Total for Tertiary Sector
	IV & V	VI		VII	VIII	IX	
1	7	8	9	10	11	12	13
All-India	**15,879,153**	**1,467,956**	**17,347,109**	**7,309,749**	**2,136,446**	**14,627,704**	**24,073,899**
GUJARAT	**674,471**	**50,245**	**724,716**	**409,501**	**99,849**	**926,188**	**1,435,538**
1 Jamnagar	27,331	1,796	29,127	17,637	6,248	33,352	57,237
2 Rajkot	37,995	3,048	41,043	29,416	6,925	66,135	102,476
3 Surendranagar	24,020	1,352	25,372	14,233	3,831	38,234	56,298
4 Bhavnagar	37,259	1,830	39,089	27,423	6,787	67,450	101,660
5 Amreli	22,815	684	23,499	13,084	3,818	33,900	50,802
6 Junagadh	36,079	2,325	38,404	29,935	7,213	66,148	103,296
7 Kutch	22,744	3,652	26,396	17,005	5,198	54,998	77,201
8 Banaskantha	17,961	2,081	20,042	15,153	2,672	28,643	46,468
9 Sabarkantha	18,760	1,147	19,907	11,519	1,727	27,006	40,252
10 Mehsana	43,687	3,937	47,624	38,592	6,423	71,427	116,442
11 Ahmedabad	186,115	6,734	192,849	76,572	16,395	115,267	208,234
12 Kaira	43,811	3,860	47,671	27,859	5,456	63,538	96,853
13 Panchmahals	14,347	1,068	15,415	11,625	3,529	28,416	43,570
14 Baroda	38,512	3,281	41,793	28,510	7,614	81,371	117,495
15 Broach	15,515	1,044	16,559	11,451	2,597	43,841	57,889
16 Surat	86,024	12,322	98,346	39,286	13,380	103,660	156,326
17 Dangs	1,496	84	1,580	201	36	2,802	3,039

NOTE:

Category I=As Cultivator, II=As Agricultural labourer, III=In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and Allied activities, IV=At Household Industry, V=In Manufacturing other than Household Industry, VI=In Construction, VII=In Trade and Commerce, VIII=In Transport, Storage and Communications, IX=In Other Services

STATEMENT

Percentage distribution of working

Sl. No.	State/District	Total		Primary Sector I		Primary Sector II		Primary Sector III		Total for Primary Sector	
		1951	1961	1951	1961	1951	1961	1951	1961	1951	1961
1	2	3	4	5	6	7	8	9	10	11	12
GUJARAT		**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
1	Jamnagar	3.78	3.63	3.26	3.66	3.90	1.53	7.35	6.72	3.67	3.26
2	Rajkot	5.68	5.60	6.00	5.59	2.41	2.97	9.78	7.40	5.20	5.07
3	Surendranagar	3.18	2.95	2.74	2.72	2.50	2.52	6.73	4.20	2.89	2.70
4	Bhavnagar	5.23	5.13	4.80	4.51	3.50	5.07	7.72	5.24	4.60	4.64
5	Amreli	3.07	3.49	2.59	3.89	3.53	3.52	3.34	4.06	2.89	3.81
6	Junagadh	6.27	6.25	4.71	6.71	9.23	4.72	7.65	7.57	6.13	6.34
7	Kutch	3.49	3.19	2.64	2.85	2.59	2.50	7.05	4.04	2.86	2.80
8	Banaskantha	5.46	5.32	8.94	7.13	1.13	2.24	6.15	9.19	6.62	6.13
9	Sabarkantha	4.64	4.94	6.78	6.87	3.20	2.29	2.30	4.09	5.55	5.84
10	Mehsana	8.34	8.54	9.85	8.78	5.23	5.83	12.38	4.86	8.70	8.08
11	Ahmedabad	9.27	8.98	4.01	3.94	5.56	6.23	9.09	3.46	4.71	4.42
12	Kaira	9.16	8.07	10.04	8.31	12.10	9.40	5.64	4.36	10.38	8.47
13	Panchmahals	8.34	8.89	14.96	14.03	3.36	2.42	2.77	5.36	11.09	11.40
14	Baroda	7.59	6.92	6.05	5.61	12.63	12.96	2.60	4.16	7.69	7.15
15	Broach	4.40	4.80	2.73	4.11	10.67	11.53	1.51	3.53	4.87	5.68
16	Surat	11.78	12.84	9.43	10.71	18.30	23.59	7.38	18.31	11.78	13.59
17	Dangs	0.32	0.46	0.47	0.58	0.10	0.68	0.56	1.45	0.37	0.62

STATEMENT

Percentage distribution of district

Sl. No.	State/District	Total		Primary Sector I		Primary Sector II		Primary Sector III		Total for Primary Sector	
		1951	1961	1951	1961	1951	1961	1951	1961	1951	1961
1	2	3	4	5	6	7	8	9	10	11	12
All-India		**100.00**	**100.00**	**50.02**	**52.82**	**19.72**	**16.71**	**0.57**	**2.75**	**70.31**	**72.28**
GUJARAT		**100.00**	**100.00**	**44.91**	**53.33**	**18.64**	**14.77**	**3.59**	**1.24**	**67.14**	**69.34**
1	Jamnagar	100.00	100.00	38.72	53.76	19.53	6.24	6.99	2.29	65.24	62.29
2	Rajkot	100.00	100.00	47.43	53.25	7.92	7.84	6.19	1.64	61.54	62.73
3	Surendranagar	100.00	100.00	38.71	49.12	14.64	12.59	7.60	1.76	60.95	63.47
4	Bhavnagar	100.00	100.00	41.26	46.89	12.47	14.61	5.31	1.26	59.04	62.76
5	Amreli	100.00	100.00	37.81	59.33	21.46	14.90	3.91	1.44	63.18	75.67
6	Junagadh	100.00	100.00	33.77	57.30	27.46	11.16	4.39	1.89	65.62	70.35
7	Kutch	100.00	100.00	33.87	47.63	13.81	11.55	7.25	1.57	54.93	60.75
8	Banaskantha	100.00	100.00	73.55	71.51	3.86	6.23	4.05	2.14	81.46	79.88
9	Sabarkantha	100.00	100.00	65.64	74.15	12.85	6.84	1.78	1.02	80.27	82.01
10	Mehsana	100.00	100.00	53.04	54.83	11.70	10.09	5.33	0.71	70.07	65.63
11	Ahmedabad	100.00	100.00	19.45	23.41	11.18	10.25	3.53	0.48	34.16	34.14
12	Kaira	100.00	100.00	49.19	54.89	24.61	17.19	2.21	0.67	76.01	72.75
13	Panchmahals	100.00	100.00	80.54	84.09	7.51	4.01	1.19	0.75	89.24	88.85
14	Baroda	100.00	100.00	35.80	43.22	31.03	27.68	1.23	0.74	68.06	71.64
15	Broach	100.00	100.00	27.84	45.70	45.19	35.50	1.24	0.91	74.27	82.11
16	Surat	100.00	100.00	35.93	44.51	28.95	27.16	2.25	1.76	67.13	73.43
17	Dangs	100.00	100.00	66.14	66.62	5.69	21.77	6.23	3.89	78.06	92.28

NOTE:

1. Category I=As Cultivator, II=As Agricultural labourer, III=In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, Orchards and Allied activities, IV=At Household Industry, V=In Manufacturing other than Household Industry, VI=In Construction, VII=In Trade and Commerce, VIII=In Transport, Storage and Communications, IX=In Other Services

XII.8

force of State by district, 1951–61

Secondary Sector						Tertiary Sector								
IV & V		VI		Total for Secondary Sector		VII		VIII		IX		Total for Tertiary Sector		Sl.
1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	No.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	1
100.00	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	
4.05	4.26	3.57	4.18	4.02	4.26	4.31	4.24	6.26	5.95	3.60	4.57	3.99	4.63	1
5.63	6.27	6.07	7.88	5.66	6.40	7.18	6.99	6.93	7.26	7.14	7.20	7.14	7.15	2
3.56	3.88	2.69	2.59	3.50	3.78	3.48	3.02	3.84	2.52	4.13	3.59	3.92	3.30	3
5.52	5.83	3.64	6.07	5.39	5.85	6.70	6.26	6.80	7.35	7.28	6.54	7.08	6.55	4
3.38	2.74	1.36	2.75	3.24	2.74	3.20	2.65	3.82	1.62	3.66	3.09	3.54	2.80	5
5.35	5.07	4.63	6.62	5.30	5.19	7.31	6.94	7.22	6.26	7.14	6.75	7.20	6.75	6
3.37	3.68	7.27	6.70	3.64	3.91	4.15	3.47	5.21	4.41	5.94	4.57	5.38	4.23	7
2.66	3.39	4.14	6.33	2.77	3.61	3.70	3.87	2.68	2.25	3.09	3.37	3.24	3.39	8
2.78	2.35	2.28	5.20	2.75	2.56	2.81	3.39	1.73	1.47	2.92	3.39	2.80	3.17	9
6.48	10.78	7.84	5.76	6.57	10.40	9.42	9.05	6.43	6.69	7.71	9.20	8.11	8.88	10
27.60	23.66	13.40	14.71	26.61	22.98	18.70	19.19	16.42	18.14	12.45	14.38	14.51	16.20	11
6.50	6.83	7.68	7.11	6.58	6.85	6.80	7.65	5.46	6.03	6.86	7.61	6.75	7.44	12
2.13	2.57	2.13	2.14	2.13	2.53	2.84	3.51	3.53	6.20	3.07	3.52	3.03	3.82	13
5.71	5.17	6.53	4.62	5.77	5.13	6.96	6.78	7.63	8.13	8.79	7.66	8.18	7.46	14
2.30	2.03	2.08	3.00	2.28	2.10	2.80	3.19	2.60	2.51	4.73	3.64	4.03	3.38	15
12.76	11.45	24.52	13.99	13.57	11.64	9.59	9.70	13.40	13.08	11.19	10.73	10.89	10.69	16
0.22	0.04	0.17	0.35	0.22	0.07	0.05	0.10	0.04	0.13	0.30	0.19	0.21	0.16	17

XII.9

working force by sector, 1951–1961

Secondary Sector						Tertiary Sector								
IV & V		VI		Total for Secondary Sector		VII		VIII		IX		Total for Tertiary Sector		
1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	1951	1961	Sl.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	No.
11.38	**10.61**	**1.05**	**1.09**	**12.43**	**11.70**	**5.24**	**4.05**	**1.53**	**1.59**	**10.49**	**10.38**	**17.26**	**16.02**	1
10.26	**12.88**	**0.76**	**1.06**	**11.02**	**13.94**	**6.23**	**4.85**	**1.52**	**1.88**	**14.09**	**9.99**	**21.84**	**16.72**	
11.00	15.16	0.72	1.22	11.72	16.38	7.10	5.67	2.51	3.08	13.48	12.58	23.04	21.33	1
10.18	14.43	0.82	1.50	11.00	15.93	7.88	6.06	1.86	2.43	17.72	12.85	27.46	21.34	2
11.48	16.92	0.68	0.93	12.13	17.85	6.81	4.96	1.83	1.60	18.28	12.12	26.92	18.68	3
10.84	14.83	0.53	1.26	11.37	15.89	7.98	5.92	1.98	2.69	19.63	12.74	29.59	21.35	4
11.31	10.10	0.34	0.83	11.65	10.93	6.48	3.68	1.89	0.87	16.80	8.85	25.17	13.40	5
8.76	10.46	0.56	1.13	9.32	11.59	7.26	5.39	1.75	1.88	16.05	10.79	25.06	18.06	6
9.89	14.85	1.59	2.23	11.48	17.08	7.40	5.28	2.26	2.59	23.93	14.30	33.59	22.17	7
5.01	8.21	0.58	1.26	5.59	9.47	4.22	3.53	0.75	0.79	7.98	6.33	12.95	10.65	8
6.15	6.12	0.38	1.12	6.53	7.24	3.78	3.33	0.57	0.56	8.85	6.86	13.20	10.75	9
7.97	16.27	0.72	0.72	8.69	16.99	7.04	5.14	1.17	1.47	13.03	10.77	21.24	17.38	10
30.55	33.95	1.11	1.74	31.66	35.69	12.57	10.37	2.69	3.79	18.92	16.01	34.18	30.17	11
7.27	10.90	0.64	0.93	7.91	11.83	4.62	4.60	0.91	1.40	10.55	9.42	16.08	15.42	12
2.62	3.72	0.20	0.25	2.82	3.97	2.12	1.92	0.64	1.31	5.18	3.95	7.94	7.18	13
7.72	9.63	0.66	0.71	8.38	10.34	5.72	4.75	1.53	2.21	16.31	11.06	23.56	18.02	14
5.36	5.44	0.36	0.66	5.72	6.10	3.96	3.23	0.90	0.98	15.15	7.58	20.01	11.79	15
11.10	11.48	1.59	1.16	12.69	12.64	5.07	3.67	1.73	1.91	13.38	8.35	20.18	13.93	16
7.11	1.22	0.40	0.81	7.51	2.03	0.95	1.01	0.17	0.52	13.31	4.16	14.43	5.69	17

2. Combined figures for Category IV and V are given for the year 1951 and 1961 as separate figures for the year 1951 are not available.

18. The secondary sector relating to manufacturing and construction for the country shows a slight decrease from 12.43 per cent in 1951 to 11.70 per cent in 1961 in contrast to the increase in the State from 11.02 to 13.94 per cent during the same period. The decrease in the proportion of working force engaged in the tertiary sector is much less from 17.26 to 16.02 per cent in the country as a whole as against the substantial decrease in the State from 21.84 to 16.72 between 1951–61. The supremacy of agriculture in the economic field and the expanding trends of industrialisation are quite apparent from these comparisons. Barring a few exceptions, the percentage distribution of working force in the districts by industrial sectors also shows similar tendencies, namely, increase in the percentage of working population engaged in the primary and secondary sectors and decrease in the tertiary. In the primary sector, cultivation of land shows an increase in the working population over that returned in 1951 in all the districts except Banaskantha, where it has fallen from 73.55 to 71.51 per cent in 1961. The proportionate strength of agricultural labourers has, however, declined as in the State as a whole in all the districts except Bhavnagar, Banaskantha and the Dangs. Animal husbandry also has registered a uniform reduction in the proportionate strength of the working population owing to reasons already noted above. Taking the primary sector as a whole, the only districts which do not show increase in the proportionate strength are Jamnagar, Banaskantha, Mehsana, Ahmedabad, Kaira and the Panchmahals, high increase being particularly noteworthy in the Dangs and Baroda. All the districts conform to the rising trend in the proportionate strength of working population engaged in manufacturing and construction industries forming part of the secondary activities. The only districts which have lagged behind are the backward districts of Amreli and the Dangs. Expansion of construction activities is, however, notable in Kutch and Ahmedabad. As regards industrial development, the various districts of the State array themselves in three distinct regional groups with Ahmedabad at the top. These groups, it should be noted, are not exclusive, as some of them contain large tracts of tribal population which are economically backward and call for greater concentration of developmental activities. The groupings of districts according to the stages of their industrial development would, therefore, be (i) non-tribal tracts comprised in Ahmedabad, Mehsana, Kaira, Baroda and Surat, (ii) Jamnagar, Rajkot, Surendranagar, Bhavnagar and Kutch districts of Peninsular Gujarat and (iii) districts of Banaskantha, Sabarkantha, the Panchmahals, Broach, the Dangs, Amreli, Junagadh and the tribal areas forming part of Baroda and Surat districts.

19. The distribution of working force by district shows that 54.24 per cent are concentrated in the six districts of Mehsana, Ahmedabad, Kaira, the Panchmahals, Baroda and Surat, and the remaining 45.76 per cent in the rest of the eleven districts varying from 0.32 per cent in the Dangs to 6.27 per cent in Junagadh.

20. The trends of industrial development during the decade are vividly reflected in the number of factories and workers compared in the Statement XII.10 given at the end of this Section extracted from the monograph "Locations of Industries in Gujarat State, 1956–60" prepared and published by the State Bureau of Economics and Statistics, Ahmedabad.

During the quinquennium 1956–60, the total number of factories has risen from 2,709 to 3,520 and the workers engaged therein from 316,060 to 342,705, an addition of 811 factories and 26,645 workers. Whereas large-scale factories have added 93 establishments to their number in 1956, the addition to small-scale units has been 718. The increase, however, in the number of workers in both these sectors has been very nearly the same, 13,168 persons in large-scale as against 13,477 in small-scale establishments. The industries which have made substantial contribution to the provision of employment are (i) manufacture of miscellaneous food preparations (6,164), (ii) manufacture of structural clay products (5,526), (iii) manufacture of machinery except electrical machinery (4,842), (iv) manufacture of motor vehicles and cycles (1,943), (v) basic chemicals including fertilizers (1,273) and (vi) manufacture of non-metallic products not elsewhere classified (1,149). Other industries which have also made notable contribution are manufacture of pottery, chinaware, printing, book-binding, etc., manufacture of

glass and glass products, basic metal industries (ferrous), manufacture of metal products (except machinery and transport equipment). These industries amply reveal the direction in which employment potential is developing and likely to expand in future.

21. The position of the working force in the various sectors of industry has been reviewed in the preceding paragraphs. The extent of unemployment revealed by the 1961 Census has been compared with that registered with the Employment Exchange in Chapter XI. The results thrown out by the special survey conducted by the State Bureau of Economics and Statistics have also been discussed later in Part C of this Chapter which show a wide gap between reported unemployment and that disclosed by a special survey. Compared to the employment potential generated during the various Five Year Plans, it is seen that intensive efforts are needed to raise the level of employment, if all the surplus personnel in the labour force of the State is to be absorbed. The gulf between unemployment and employment potential is widening owing to the phenomenal rate at which population is increasing year after year. Measures so far taken to effectively control the birth-rate have not produced desired results. The population explosion like all physical explosions is damaging and results in casualties which bring sufferings and misery to mankind. While other explosions cause depletion of numbers, population explosion acts in a contrary direction by inducing growth of numbers causing casualty in the field of economic progress and human well-being owing to the increase in the number of mouths to be fed and in the number of hands for whom gainful employment is to be found in an economy which is already overstrained and overpopulated. Growth of numbers may be a welcome phenomenon in an undeveloped country which has immense natural resources yet to be exploited. But the conditions are different in underdeveloped and developing countries, where at a certain stage of development, progress is hampered, if the rate of increase far exceeds that of employment generated. The damaging consequences of population explosion are wastage of human material, scarcity, misery and want. The programmes aiming at the limitation of births should, therefore, receive the highest priority in national planning, which alone will result in effectively curbing the growth of numbers so very essential for human progress and welfare.

22. The extent of working force by itself is no criterion for judging the potentiality of economic development which is essentially correlated to technological and scientific advance and the level of intelligence and creative ability of the working force. Any economic progress is conditioned by the stage of development of human and material resources of a region, State or country. The same strength of human material in a primitive society cannot generate that amount of national income which a developing country does; nor can the latter rise to the level of advanced countries which have far advanced their level of production and consumption with the aid of modern science. The quality of human beings also differs from country to country, as their capacities for economic activity are varied and dependent on the stages of their development and ability to contribute to the production of goods and services. Exploitation of material resources is further conditioned by the stage of scientific development attained by society, which governs its technical know-how and means of production. Thus, the resources may be there and the requisite man-power may also be there, but the results aimed at are not forthcoming for lack of the essential quality of man-power and requisite aids of science and technology which help generate maximum output by inducing maximum outlay, and raise the level of consumption of the people. It is this objective that each successive Five Year Plan of the country has kept in view while framing a phased and comprehensive programme of alround economic development for putting to maximum use human and material resources existing in this land.

STATEMENT

Number of factories and

Sl. No.	Name of industry	1956					
		Large-scale		Small-scale		All factories	
		Factories	Workers	Factories	Workers	Factories	Workers
1	2	3	4	5	6	7	8
	All industries	**674**	**270,684**	**2,035**	**45,376**	**2,709**	**316,060**
1	Gins and presses	286	36,486	222	5,941	508	42,427
2	Manufacture of dairy products	2	127	1	12	3	139
3	Canning and preservation of fruits and vegetables	..	..	..	..	..	..
4	Manufacture of grain mill products	3	217	69	1,083	72	1,300
5	Manufacture of bakery products	..	..	3	40	3	40
6	Sugar factories and refineries	3	263	1	44	4	307
7	Manufacture of sugar, confectionery, cocoa and chocolate	..	..	5	66	5	66
8	Manufacture of miscellaneous food preparations	49	6,412	188	4,830	237	11,242
9	Soft drinks and carbonated water industries	..	..	9	99	9	99
10	Tobacco manufactures	12	1,227	159	4,959	171	6,186
11	Spinning, weaving and finishing of textiles	136	187,232	381	8,444	517	195,676
12	Knitting mills	1	475	7	176	8	651
13	Cordage rope and twine industries	1	50	8	188	9	238
14	Manufacture of textiles not elsewhere classified	1	120	55	1,000	56	1,120
15	Manufacture of boots and shoes (except rubber footwear)	..	..	..	..	..	..
16	Manufacture of wearing apparel (except footwear)	..	..	2	66	2	66
17	Manufacture of made-up textile goods except apparel wearing	1	95	4	154	5	249
18	Manufacture of wood and cork except manufacture of furniture	12	1,940	59	1,016	71	2,956
19	Manufacture of furniture and fixtures	..	..	3	26	3	26
20	Pulp, paper and paper board mills	4	1,594	4	103	8	1,697
21	Printing, book binding, etc.	11	1,438	120	1,901	131	3,339
22	Tanneries and leather finishing	..	..	3	55	3	55
23	Manufacture of leather products except footwear and other wearing apparel	..	..	13	303	13	303
24	Manufacture of rubber and rubber products	2	465	5	98	7	563
25	Basic chemicals including fertilizers	11	4,811	8	233	19	5,044

NOTE:

Factories covered under Section 85 of Factory Act are not included.

Source:

"Locations of Industries in Gujarat State, 1956–1960" prepared by the Bureau of Economics and Statistics, Gujarat State

XII.10

workers, 1956–60

1960						Variation between 1956–60 Increase + Decrease —						Sl. No.
Large-scale		Small-scale		All factories		Large-scale		Small-scale		All factories		
Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	
9	10	11	12	13	14	15	16	17	18	19	20	1
767	**283,852**	**2,753**	**58,853**	**3,520**	**342,705**	**+93**	**+13,168**	**+718**	**+13,477**	**+811**	**+26,645**	
258	33,482	220	5,110	478	38,592	—28	—3,004	—2	—831	—30	—3,835	1
2	301	5	109	7	410	0	+174	+4	+97	+4	+271	2
..	..	1	14	1	14	..	..	+1	+14	+1	+14	3
4	368	94	1,528	98	1,896	+1	+151	+25	+445	+26	+596	4
..	..	4	60	4	60	..	..	+1	+20	+1	+20	5
4	1,068	2	71	6	1,139	+1	+805	+1	+27	+2	+832	6
..	..	10	131	10	131	..	..	+5	+65	+5	+65	7
66	10,154	345	7,252	411	17,406	+17	+3,742	+157	+2,422	+174	+6,164	8
..	..	11	133	11	133	..	..	+2	+34	+2	+34	9
14	1,167	173	5,568	187	6,735	+2	—60	+14	+609	+16	+549	10
159	185,737	532	10,306	691	196,043	+23	—1,495	+151	+1,862	+174	+367	11
1	243	4	63	5	306	0	—232	—3	—113	—3	—345	12
1	50	9	183	10	233	0	0	+1	—5	+1	—5	13
4	520	40	526	44	1,046	+3	+400	—15	—474	—12	—74	14
..	..	1	38	1	38	..	..	+1	+38	+1	+38	15
..	..	8	211	8	211	..	..	+6	+145	+6	+145	16
1	66	3	85	4	151	0	—29	—1	—69	—1	—98	17
12	2,214	79	1,647	91	3,861	0	+274	+20	+631	+20	+905	18
..	..	5	109	5	109	0	0	+2	+83	+2	+83	19
5	1,407	11	261	16	1,668	+1	—187	+7	+158	+8	—29	20
14	2,022	133	2,024	147	4,046	+3	+584	+13	+123	+16	+707	21
..	..	4	80	4	80	..	..	+1	+25	+1	+25	22
..	..	15	292	15	292	..	..	+2	—11	+2	—11	23
3	810	9	184	12	994	+1	+345	+4	+86	+5	+431	24
15	5,849	17	468	32	6,317	+4	+1,038	+9	+235	+13	+1,273	25

STATEMENT

Number of factories

Sl. No.	Name of industry	1956					
		Large-scale		Small-scale		All factories	
		Factories	Workers	Factories	Workers	Factories	Workers
1	2	3	4	5	6	7	8
26	Vegetable and animal oils and fats (except edible oils)	..	..	2	18	2	18
27	Manufacture of miscellaneous chemical products	11	2,451	23	407	34	2,858
28	Petroleum refineries	2	425	14	279	16	704
29	Manufacture of miscellaneous products of petroleum and coal	..	..	..	..	..	..
30	Manufacture of structural clay products	19	2,253	80	2,773	99	5,026
31	Manufacture of glass and glass products (excepting optical lenses)	3	743	2	20	5	763
32	Manufacture of pottery, china and earthenware	8	1,909	4	81	12	1,990
33	Manufacture of cement	3	2,776	2	86	5	2,862
34	Manufacture of non-metallic mineral products not elsewhere classified	4	261	36	854	40	1,115
35	Basic metal industries, ferrous	2	182	19	348	21	530
36	Basic metal industries, non-ferrous	1	211	42	733	43	944
37	Manufacture of metal products (except machinery and transport equipment)	5	323	92	1,624	97	1,947
38	Manufacture of machinery except electrical machinery	33	3,621	211	3,742	244	7,363
39	Electrical mechinery apparatus, appliances and supplies	1	64	1	4	2	68
40	Ship buildings	4	236	..	..	4	236
41	Manufacture and repair of railroad equipment	14	6,937	1	25	15	6,962
42	Manufacture of motor vehicles and cycles	12	1,327	52	954	64	2,281
43	Manufacture of bicycles	..	..	1	18	1	18
44	Manufacture of transport equipment not elsewhere classified	1	248	1	7	2	255
45	Manufacture of professional scientific measuring and controlling instruments	..	..	1	34	1	34
46	Manufacture of photographic and other optical goods	..	..	7	219	7	219
47	Manufacture of watches and clocks	..	..	1	38	1	38
48	Manufacture of jewellery and related articles	..	..	..	..	..	..
49	Manufacture of musical instruments	..	..	4	66	4	66
50	Manufacturing industries not elsewhere classified	8	2,267	52	1,028	60	3,295
51	Electric light and power	8	1,498	48	974	56	2,472
52	Water supply stations	..	..	5	111	5	111
53	Sanitary services(pumping and sewage)	..	..	4	79	4	79
54	Laundries and Laundry services	..	..	..	..	..	..
55	Gas manufacture and distribution	..	..	1	17	1	17

XII.10-*contd.*

and workers, 1956–60

1960						Variation between 1956–60 Increase + Decrease —						Sl. No.
Large-scale		Small-scale		All factories		Large-scale		Small-scale		All factories		
Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	
9	10	11	12	13	14	15	16	17	18	19	20	1
1	54	2	45	3	99	+1	+54	0	+27	+1	+81	26
11	2,105	38	903	49	3,008	0	—346	+15	+496	+15	+150	27
3	657	15	278	18	935	+1	+232	+1	—1	+2	+231	28
..	..	1	13	1	13	..	..	+1	+13	+1	+13	29
51	5,835	96	4,717	147	10,552	+32	+3,582	+16	+1,944	+48	+5,526	30
3	1,253	2	24	5	1,277	0	+510	0	+4	0	+514	31
10	2,785	6	130	16	2,915	+2	+876	+2	+49	+4	+925	32
4	2,304	2	24	6	2,328	+1	—472	0	—62	+1	—534	33
10	792	55	1,472	65	2,264	+6	+531	+19	+618	+25	+1,149	34
4	578	30	520	34	1,098	+2	+396	+11	+172	+13	+568	35
2	272	64	1,025	66	1,297	+1	+61	+22	+292	+23	+353	36
7	607	124	2,018	131	2,625	+2	+284	+32	+394	+34	+678	37
41	6,014	321	6,191	362	12,205	+8	+2,393	+110	+2,449	+118	+4,842	38
..	..	12	287	12	287	—1	—64	+11	+283	+10	+219	39
3	469	5	131	8	600	—1	+233	+5	+131	+4	+364	40
13	7,151	2	59	15	7,210	—1	+214	+1	+34	0	+248	41
21	2,794	77	1,430	98	4,224	+9	+1,467	+25	+476	+34	+1,943	42
..	..	2	25	2	25	..	..	+1	+7	+1	+7	43
2	251	1	9	3	260	+1	+3	0	+2	+1	+5	44
..	..	1	24	1	24	..	..	0	—10	0	—10	45
1	50	15	306	16	356	+1	+50	+8	+87	+9	+137	46
1	76	1	19	2	95	+1	+76	0	—19	+1	+57	47
..	..	4	36	4	36	..	..	+4	+36	+4	+36	48
..	..	4	97	4	97	..	..	0	+31	0	+31	49
5	2,027	67	1,413	72	3,440	—3	—240	+15	+385	+12	+145	50
10	2,254	54	873	64	3,127	+2	+756	+6	—101	+8	+655	51
1	66	4	79	5	145	+1	+66	—1	—32	0	+34	52
..	..	9	148	9	148	..	..	+5	+69	+5	+69	53
..	..	3	60	3	60	..	..	+3	+60	+3	+60	54
..	..	1	44	1	44	..	..	0	+27	0	+27	55

PART B—INVESTMENT AND OUTLAY IN THE STATE DURING THE LAST 10 YEARS

SECTION 3

GENERAL

23. In this part will be discussed the utilisation of the financial resources made available for the Second Plan period in terms of provision made and expenditure incurred. Indication will also be given of the provision made for the Third Plan with a view to have a comparative idea of the progress envisaged over the preceding Plan period. It must, however, be pointed out, as already referred to at the outset, that such an assessment is possible only to a limited extent, as figures for the First Plan and district-wise details of the Second Plan implemented in the areas forming part of the new State of Gujarat are not available. Such of the statistics as are available have, therefore, been presented for the various items under review.

THE SECOND PLAN

24. Prior to Reorganisation of States in 1956, districts of Mainland Gujarat formed part of the then Bombay State, whereas Saurashtra and Kutch areas existed respectively as Part B and Part C States. All these three regions had formulated their Second Plan keeping in view the national objectives and the needs of respective States. After the implementation of Plan commenced on 1st April, 1956, the States of Saurashtra and Kutch were included in the composite Bombay State, which had come into existence on 1st November, 1956, when the Plans of Saurashtra and Kutch were integrated with that of the Bombay State keeping salient features of the programmes of the incoming areas intact. When the bilingual Bombay State was bifurcated into Maharashtra and Gujarat in 1960, the Plan outlay for each of them was separated from the General Plan and the size of the Second Plan for the new State of Gujarat was placed at Rs. 145.87 crores. The sector-wise allocations of the Plan outlay were distributed as under.

STATEMENT XII.11

Sectoral outlay of the Second Plan

Sl. No.	Major head of development	Provision (Rs. in crores)	Per cent
1	2	3	4
1	Agriculture and Community Development	36.00	24.7
2	Irrigation and Power	57.41	39.3
3	Industries and Mining	4.76	3.3
4	Transport and Communications	16.86	11.5
5	Social Services	28.05	19.3
6	Miscellaneous	2.85	1.9
	Total	**145.93**	**100.0**
	Difference due to adjustment	—0.06	
		145.87	

ACHIEVEMENT

25. As against the Plan outlay of Rs. 145.87 crores, the expenditure during the Second Plan period amounted to Rs. 152.51 crores. Expressed in terms of percentage, the actual performance has, therefore, been of the order of about 105 per cent. The following table gives progress of expenditure during the Second Plan under major heads of development.

STATEMENT XII.12

Outlay and expenditure under the major heads of development during the Second Plan

(Rs. in crores)

Sl. No.	Head of development	Plan provision	Expen-diture	Per cent
1	2	3	4	5
1	Agriculture and Community Development	36.00	37.31	103.64
2	Irrigation and Power	57.41	51.08	88.97
3	Industries and Mining	4.76	3.94	82.77
4	Transport and communications	16.86	27.20	161.33
5	Social Services	28.05	29.33	104.56
6	Miscellaneous	2.85	1.15	40.35
		—0.06	+2.50	..
	Total	**145.87**	**152.51**	**104.55**

(—) Adjustment on account of reorganisation and bifurcation

(+) Share of common expenditure accounted for Gujarat at the time of bifurcation

In the matter of expenditure incurred against the total provision made for the Second Plan period, it is gratifying to note that the performance as reflected in some of the important sectors like agriculture and community development, transport and communications and social services is satisfactory. The excess expenditure incurred in transport and communications testifies to the intensive efforts the State has been making to meet the acute deficiency in this sector. Progress in other sectors like irrigation and power and industries and mining falls appreciably below the target. Under the head miscellaneous, the performance is comparatively poor as only 40 per cent of the Plan provision was utilised between 1956 and 1961.

SECTION 4

AGRICULTURE AND RURAL DEVELOPMENT

26. The following table gives data regarding Plan expenditure on agriculture and rural development.

STATEMENT XII.13

Plan expenditure on agriculture and rural development

(Rupees in lakhs except col. 7)

Sector	1956-57 to 1958-59	1959-60	1960-61	Expenditure on adjusted schemes	Total Second Plan expenditure	Expenditure *per capita* of workers in agriculture, animal husbandry, fishery, etc., (1961 Census)	Second Plan provision	Third Plan provision
1	2	3	4	5	6	7	8	9
Agriculture and Community Development	**1,933.70**	**789.68**	**957.91**	**49.37**	**3,730.66**	**63.71**	**3,591.91**	**5,872.53**
1 Agricultural Production	71.60	63.15	73.69	..	208.44	3.56	217.74	617.27
2 Land Development	140.59	37.98	39.83	..	218.40	3.73	223.24	124.29
3 Minor Irrigation	589.34	111.30	131.65	..	832.29	14.21	737.20	1,500.00
4 Warehousing, Marketing and Cooperation	199.06	88.30	108.29	49.37	445.02	7.60	302.29	553.11
5 Animal Husbandry	26.07	12.36	20.83	..	59.26	1.01	121.45	233.00
6 Dairying and Milk Supply	2.00	4.28	68.13	..	74.41	1.27	38.40	185.20
7 Forests	14.90	21.27	30.46	..	66.63	1.14	113.28	223.95
8 Soil Conservation	73.46	31.53	78.49	..	183.48	3.13	196.14	825.51
9 Fisheries	33.81	3.59	28.60	..	66.00	1.13	59.55	129.14
10 Community Development/ National Extension Service/Local Development Works and Rural Development	782.25	415.71	377.73	..	1,575.69	26.91	1,569.26	1,481.06
11 Miscellaneous	0.62	0.21	0.21	..	1.04	0.02	13.36	..

NOTE:

1. The data for the First Five Year Plan are not available.
2. The break up of figures under col. 2 for the years, 1956-57, 1957-58 and 1958-59 is not available.

Source :

1. General Administration Department, Government of Gujarat
2. Handbook of Basic Statistics, Gujarat State, 1961 (for col. 8)

Agriculture, being the primary industry of the State on which a little less than three-fourths of the State population depend for their livelihood, assumes special significance in national planning. The alround development of the countryside has been aimed at through the improvement of agriculture and allied activities comprising cooperation, animal husbandry, forest, fisheries and provision of various amenities of which they were hitherto deprived, by earmarking one-fourth of the total outlay for this programme. The performance in this sector is on the whole satisfactory, as the overall expenditure exceeds the Plan outlay by Rs. 138.75 lakhs or 3.86 per cent, though achievement under different sub-heads varies. Expenditure after dairy farming and milk supply is about double the original outlay, that on warehousing, marketing and cooperation exceeds by 47.22 per cent, and that on minor irrigation by about 13 per cent. In the field of agricultural production, land development, soil conservation, fisheries and implementation of Community Development, National Extension Service, Local Development Works and rural development programmes, expenditure very nearly keeps pace with the provision made. While performance in the field of animal husbandry is less by 51 per cent and extremely poor under miscellaneous, 'fisheries' shows an increase of 10.83 per cent. Schemes for afforestation also do not seem to have received that attention which they deserve, as out of a total outlay of Rs. 113.28 lakhs the expenditure incurred was Rs. 66.63 lakhs, giving a ratio of 58.82 per cent.

27. Achievement of financial targets by themselves are of little relevance, unless they are accompanied by a corresponding performance in the achievement of physical targets aimed at. On the food front, it is gratifying to note that additional foodgrains production was 2.61 lakh tons, which comes to a little over 90 per cent of the physical targets fixed. Production of cotton has likewise increased during the Second Plan period by about 2.67 lakh bales or 31.82 per cent, while that of groundnut by 5.3 lakh tons or 139.47 per cent. Thus on the whole the agricultural sector has been making good progress year after year by achieving the targets aimed at, both financial as well as physical. Still greater outlay in the Third Plan (Rs. 58.72 crores) is expected to stimulate development of agriculture at a pace greater than that in the past. While it is not possible to assess the growth in the output of various agricultural commodities during the past decennium owing to the lack of data showing the extent of their effects on productivity, an attempt has been made to gauge the impact of the Plan from such of the data as are available from various sources.

COMMUNITY DEVELOPMENT

28. The programme of Community Development was launched in the State in October 1952 with a view to cater to the fulfilment of basic needs and alround development of the people living in rural areas, and to bring about a social change by arousing popular enthusiasm for a new pattern of soceity with the active participation of the village people. The entire programme including State pre-extension blocks has considerably expanded and covered the whole State at the end of the Second Plan. Excluding the data regarding pre-extension blocks, basic data regarding number of blocks, the number of villages and population covered under Community Development and National Extension Service during the First and Second Plan periods are discussed below.

29. The total number of blocks covered by Community Development Programme between 1951 and 1961 comes to 16, 14 under the First and 2 under the Second Plan, corresponding numbers for National Extension Service blocks being 5 and 102. The progress in the implementation of the Community Development Programme and expansion of National Extension Service was greatly stepped up by covering 2,214 villages under Community Development Project and 12,464 under National Extension Service between 1951 and 1961. While the First Plan saw intense activity under Community Development Project, the Second was marked by a widespread coverage under National Extension Service. The total population thus covered comes to 2,138,000 under the First Plan and 9,290,000 under the Second. This progress is also reflected in the expenditure incurred during these two Plan periods when it rose from Rs. 18,820,000 during the First to Rs. 99,971,100 in the Second.

STATEMENT XII.14

Number of villages and population served by C.D.P. and N.E.S. as in the First Plan and the Second Plan

State/District	Type	Number of Blocks		Number of villages*		Population* (in thousand)	
		First Plan	Second Plan	First Plan	Second Plan	First Plan	Second Plan
1	2	3	4	5	6	7	8
GUJARAT	**C.D.P.**	**14**	**2**	**1,810**	**404**	**1,655**	**144**
	N.E.S.	**5**	**102**	**700**	**11,764**	**483**	**9,146**
1 Jamnagar	C.D.P.	2	..	169	..	105	..
	N.E.S.	..	6	..	420	..	291
2 Rajkot	C.D.P.	..	..	..	..	..	..
	N.E.S.	..	7	..	685	..	651
3 Surendranagar	C.D.P.	..	..	..	..	..	..
	N.E.S.	..	6	..	492	..	328
4 Bhavnagar	C.D.P.	..	..	..	..	..	..
	N.E.S.	..	7	..	630	..	544
5 Amreli	C.D.P.	1	..	135	..	90	..
	N.E.S.	..	6	..	490	..	432
6 Junagadh	C.D.P.	1	..	157	..	193	..
	N.E.S.	..	7	..	606	..	681
7 Kutch	C.D.P.	3	1	338	94	223	97
	N.E.S.	1	6	158	694	54	389
8 Banaskantha	C.D.P.	..	..	..	..	..	..
	N.E.S.	..	5	..	699	..	449
9 Sabarkantha	C.D.P.	1	..	191	..	90	..
	N.E.S.	..	6	..	946	..	365
10 Mehsana	C.D.P.	1	..	194	..	359	..
	N.E.S.	..	7	..	644	..	818
11 Ahmedabad	C.D.P.	1	..	119	..	131	..
	N.E.S.	1	4	130	528	127	550
12 Kaira	C.D.P.	1	..	95	..	246	..
	N.E.S.	2	7	192	694	202	1,121
13 Panchmahals	C.D.P.	1	..	76	..	89	..
	N.E.S.	..	6	..	1,009	..	573
14 Baroda	C.D.P.	..	..	..	..	..	..
	N.E.S.	..	6	..	1,254	..	570
15 Broach	C.D.P.	1	..	130	..	67	..
	N.E.S.	1	7	220	880	100	507
16 Surat	C.D.P.	1	..	206	..	62	..
	N.E.S.	..	9	..	1,093	..	877
17 Dangs	C.D.P.	..	1	..	310	..	47
	N.E.S.	..	..	..	..	..	..

C.D.P.=Community Development Programme N.E.S.=National Extension Service

*The figures of population and villages are those given in the District Census Handbook of 1951.

Source :

The Director, Bureau of Economics and Statistics, Gujarat State

30. District-wise progress shows that Rajkot, Surendranagar, Bhavnagar, Banaskantha, Baroda and the Dangs were not having any Community Development block in the First Plan, the Dangs being the only district to which this programme was extended during the Second Plan. Of the 14 Community Development blocks in the First Plan, Kutch had 3, Jamnagar 2 and Amreli, Junagadh, Sabarkantha, Mehsana, Ahmedabad, Kaira, the Panchmahals, Broach and Surat districts had one each. Kutch, Ahmedabad, Kaira and Broach were the only districts covered by National Extension Service blocks in the First Plan. But during the Second Plan, the programme expanded rapidly raising the number of National Extension Service blocks from 5 existing at the end of First Plan to 102 in the Second Plan. Except the Dangs, all the districts have been allotted National Extension Service blocks ranging from 4 in case of Ahmedabad to 9 in case of Surat.

Expenditure on Community Development/ National Extension Service

31. Sector-wise expenditure incurred under this scheme during the two Plan periods is given in the following table.

STATEMENT XII.15

Development expenditure in National Extension Service Blocks and Community Projects

Item	First Five Year Plan				Second Five Year Plan			
	Total expenditure (in '000 Rs.)	Total population served (in '000 persons)	Expenditure *per capita* of population served (Rs.)	New employment secured as at the end of the year 1955-56†	Total expenditure (in '000 Rs.)	Total population served (in '000 persons)	Expenditure *per capita* of population served (Rs.)	New employment secured as at the end of the year 1960-61†
1	2	3	4	5	6	7	8	9
1 Agriculture, animal husbandry and reclamation	1,246.9	2,038	0.61	..	28,971.0*	11,328*	2.56*	..
2 Irrigation . .	5,014.2	2,038	2.46	..	..	..	..	..
3 Rural arts, crafts and industries . .	834.0	2,038	0.41	..	3,721.4	11,328	0.33	..
4 Health services and rural sanitation .	2,581.2	2,038	1.27	..	7,051.1	11,328	0.62	..
5 Education (including social education) .	3,461.7	2,038	1.70	..	15,638.0	11,328	1.38	..
6 Rural housing .	106.9	2,038	0.05	..	6,191.1	11,328	0.55	..
7 State and Project headquarters .	2,963.7	2,038	1.45	..	33,589.8	11,328	2.97	..
8 Miscellaneous .	2,611.4	2,038	1.28	..	4,808.7	11,328	0.42	..
Total . . .	**18,820.0**	**2,908**	**9.23**	..	**99,971.1**	**11,328**	**8.83**	..

* Expenditure figures are not available separately for items 1 and 2.

† Not available

Source:

The Director, Bureau of Economics and Statistics, Gujarat State

The total expenditure has risen from Rs.18,820,000 during the First Plan to Rs. 99,971,100 in the Second thus registering an increase of 431.20 per cent over the First Plan. This financial progress comes close to the percentage increase in the number of villages (384.8) and population (334.5) covered during the corresponding period. Percentage distribution of expenditure in the First and Second Plan periods reveals that items like agriculture, animal husbandry, reclamation and irrigation which should get priority over other items rightly claim the highest share, one-third of the total expenditure in the First Plan and a little less than one-third in the Second Plan. Education follows with 18.39 and 15.64 per cent respectively of the total expenditure under the First and Second Plans. Very little amount (0.57 per cent)

was spent on "rural housing" in the First Plan, as against 6.19 per cent in the Second. Expenditure incurred in the Second Plan under "State and Project Headquarters" was 33.60 per cent as against 15.75 per cent in the First Plan.

32. *Per capita* figures regarding different items of expenditure under Community Development/ National Extension Service in the First and Second Plans are given below.

STATEMENT XII.16

Expenditure *per capita* of population served by Community Development/National Extension Service

(In Rs. and Paisa)

Item	Expenditure *per capita* of population served	
	First Plan	Second Plan
1	2	3
1 Agriculture, animal husbandry and reclamation	0.61	2.56*
2 Irrigation	2.46	..
3 Rural arts, crafts and industries	0.41	0.33
4 Health services and rural sanitation	1.27	0.62
5 Education (including social education)	1.70	1.38
6 Rural housing	0.05	0.55
7 State and Project headquarters	1.45	2.97
8 Miscellaneous	1.28	0.42
Total	**9.23**	**8.83**

* Separate figures for items 1 and 2 are not available

Source:
The Director, Bureau of Economics and Statistics, Gujarat State

Expenditure *per capita* of population served under this programme has remained more or less steady, though there is a little fall during the Second Plan, when it came to Rs. 8.83 from Rs. 9.23 during the First Plan, owing to (i) increase in the *per capita* expenditure on State and Project headquarters from Rs. 1.45 to Rs. 2.97, (ii) slackening of pace of the various development activities undertaken through the Community Development and National Extension Service programme and (iii) ebb in popular enthusiasm noticed during the initial stages of its implementation. The quality of the personnel which was recruited when the programme was first initiated somewhat deteriorated during the latter years. There was also the sense of frustration which appeared for want of funds and essential arrangements to continue the activities at the same level after the intensive stage of Community Development was over. It was these and other drawbacks in the execution of the programme which led the team appointed by the Committee on Plan Projects, Planning Commission to inquire into the working of Community Development and National Extension Service programme, to recommend that democratic decentralisation was the only means to bring out local leadership and enthuse people in the implementation of this programme which was to be worked into two stages and provided with adequate funds. These recommendations have been uniformly accepted and implemented by all the States of India.

SECTION 5

COOPERATION AND FISHERIES

(i) Cooperation

33. Substantial and alround progress Gujarat has made in the field of cooperation can be seen from the following statement giving the number of societies, membership, share capital, working capital, advances made and population covered in 1960-61.

STATEMENT XII.17

Number of societies, membership, share capital, working capital, advances made and population covered

Item	Unit	1960-61
1	2	3
1 Number . . .	..	13,748
2 Membership . . .	in 1,000	2,038
3 Share capital . .	in crores of Rs.	24.12
4 Working capital . .	-do-	152.01
5 Advances . . .	-do-	84.78
6 Percentage of rural population covered (1961 Census) by agricultural and non-agricultural societies . . .	..	57.51

Source:

Handbook of Basic Statistics, Gujarat State, 1962, p. 7

34. The number of cooperative societies in the State, agricultural as well as non-agricultural, was 13,748 in 1960-61 and that of members 2,038,000. The working capital and advances during the year amounted to Rs. 152.01 crores and Rs. 84.78 crores respectively and the total rural population covered by them on the basis of 1961 Census came to 57.51 per cent.

Agricultural Societies (Credit and Non-credit)

35. The statement opposite compares the number of agricultural cooperative societies, membership and loans advanced in 1958-59 with those of 1960-61.

STATEMENT XII.18

Agricultural societies (credit and non-credit), 1958–59 and 1960–61

(Rs. in '000)

Sl. No.	State/District	Year	No. of societies	No. of members	Loans advanced Rs.
1	2	3	4	5	6
GUJARAT	.	**1958–59**	**6,900**	**792,378**	**232,377**
		1960–61	**8,799**	**1,089,939**	**269,151**
1	Jamnagar .	1958–59	281	26,408	5,759
		1960–61	327	33,188	5,096
2	Rajkot .	1958–59	348	55,531	14,177
		1960–61	345	59,354	11,701
3	Surendranagar	1958–59	299	25,631	9,500
		1960–61	322	32,704	11,280
4	Bhavnagar .	1958–59	524	59,176	19,315
		1960–61	487	57,931	15,946
5	Amreli .	1958–59	249	14,444	4,468
		1960–61	375	37,847	11,896
6	Junagadh .	1958–59	452	52,494	19,593
		1960–61	517	66,154	15,070
7	Kutch .	1958–59	204	13,470	2,136
		1960–61	290	26,397	3,799
8	Banaskantha	1958–59	316	21,637	3,403
		1960–61	591	49,151	8,867
9	Sabarkantha	1958–59	316	34,192	7,532
		1960–61	442	51,823	10,973
10	Mehsana .	1958–59	497	44,912	8,602
		1960–61	860	88,541	20,102
11	Ahmedabad	1958–59	563	52,189	15,987
		1960–61	692	70,242	27,377
12	Kaira .	1958–59	603	93,703	8,043
		1960–61	742	119,955	13,046
13	Panchmahals	1958–59	704	50,510	2,635
		1960–61	849	68,004	4,067
14	Baroda .	1958–59	602	76,192	17,095
		1960–61	700	94,322	24,256
15	Broach .	1958–59	340	52,604	58,200
		1960–61	420	58,704	61,340
16	Surat .	1958–59	578	117,790	36,022
		1960–61	822	173,816	24,335
17	Dangs .	1958–59	24	1,495	..
		1960–61	27	1,806	..

Source:

Handbook of Basic Statistics, Gujarat State, 1961

Whereas the number of agricultural societies (credit and non-credit) during this period rose from 6,900 to 8,799, that of members went up from 792,378 to 1,089,939 and the loans advanced from Rs. 23 crores to about Rs. 27 crores. Similar progress has been registered by all the districts of the State except Rajkot and Bhavnagar, where there has been a slight decline in cooperative activities, probably due to the winding up of some of the societies because of their unsatisfactory management.

Agricultural Credit

36. The following table gives data regarding primary agricultural credit societies.

STATEMENT XII.19

Primary agricultural credit societies

State/District	Year	No. of societies	No. of members	Short and medium term loans advanced (Rs. in lakhs)
1	2	3	4	5
GUJARAT .	**1951–52**	**N.A.**	**N.A.**	**N.A.**
	1955–56	**N.A.**	**N.A.**	**N.A.**
	1960–61	**7,411**	**852,877**	**2,359.20**
1 Jamnagar .	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	308	32,140	50.96
2 Rajkot .	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	306	55,429	116.86
3 Surendranagar	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	271	29,273	112.55
4 Bhavnagar .	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	428	54,147	155.75
5 Amreli .	1951–52	44	6,561	5.76
	1955–56	196	11,700	14.31
	1960–61	334	34,114	108.43
6 Junagadh .	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	447	63,505	150.58
7 Kutch .	1951–52	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.
	1960–61	276	25,875	37.99
8 Banaskantha	1951–52	36	3,593	0.96
	1955–56	136	8,889	11.39
	1960–61	575	47,526	88.59
9 Sabarkantha	1951–52	74	8,335	6.11
	1955–56	129	14,244	21.09
	1960–61	406	45,965	109.56
10 Mehsana .	1951–52	219	19,881	4.24
	1955–56	265	23,442	21.68
	1960–61	723	80,454	200.71
11 Ahmedabad	1951–52	241	22,221	46.23
	1955–56	353	31,597	89.97
	1960–61	521	52,525	234.49
12 Kaira .	1951–52	262	22,231	7.55
	1955–56	281	23,760	24.13
	1960–61	496	64,240	120.33
13 Panchmahals	1951–52	434	24,592	8.70
	1955–56	515	28,944	13.66
	1960–61	800	56,036	40.66
14 Baroda .	1951–52	370	21,280	22.18
	1955–56	389	29,824	57.63
	1960–61	548	65,000	239.09
15 Broach .	1951–52	252	19,118	48.59
	1955–56	251	26,302	77.79
	1960–61	328	44,429	468.29
16 Surat .	1951–52	462	57,272	30.81
	1955–56	430	62,026	51.00
	1960–61	622	100,549	124.36
17 Dangs .	1951–52	1	1,097	..
	1955–56	10	1,385	..
	1960–61	22	1,670	..

N.A.=Not available

Source :
The Registrar, Cooperative Societies, Gujarat State

The total number of primary agricultural credit societies was 7,411 which had a total membership of 852,877 and advanced short and medium term loans amounting to Rs. 2,359 lakhs by the end of the Second Plan period. There has been uniform progress in the various districts of the State for which figures since 1958-59 are available, comparatively greater rate of growth being shown by such backward and tribal areas as Banaskantha, Sabarkantha and the Panchmahals. The progress made by Mehsana district is also striking in that it has added more than

500 societies during the last 10 years. Even the tiny district of the Dangs has not lagged behind and possesses 22 primary agricultural credit societies.

Agricultural (Non-credit)

37. The expansion of cooperative activities has not been confined merely to the advance of credit, as non-credit agricultural societies have also made significant progress during this period, as will be seen from the tables that follow.

STATEMENT XII.20

Central banks and banking unions (excluding industrial banks)

Sl. No.	State/District	Year	Number	Members	(Rs. in '000) Loan advanced Rs.
1	2	3	4	5	6
GUJARAT	. .	**1958-59**	**20**	**21,982**	**101,169**
		1960-61	**21**	**30,310**	**208,322**
1	Jamnagar .	1958-59	1	18	..
		1960-61	1	393	4,941
2	Rajkot . .	1958-59	3	1,712	2,123
		1960-61	3	1,000	11,750
3	Surendranagar	1958-59	2	1,669	1,109
		1960-61	2	1,992	9,863
4	Bhavnagar .	1958-59	1	11	..
		1960-61	1	619	13,398
5	Amreli . .	1958-59	2	886	3,929
		1960-61	2	1,067	7,538
6	Junagadh .	1958-59	1	21	..
		1960-61	1	602	16,478
7	Kutch . .	1958-59	1	50	..
		1960-61	1	319	3,358
8	Banaskantha .	1958-59	..	..	..
		1960-61	1	4,245	9,466
9	Sabarkantha .	1958-59	1	296	..
		1960-61	1	596	16,479
10	Mehsana .	1958-59	1	2,301	8,429
		1960-61	1	2,909	18,804
11	Ahmedabad .	1958-59	1	918	14,632
		1960-61	1	1,192	24,887
12	Kaira . .	1958-59	1	2,422	28,344
		1960-61	1	2,275	12,210
13	Panchmahals .	1958-59	1	1,622	2,319
		1960-61	1	2,356	3,434
14	Baroda . .	1958-59	1	2,343	13,218
		1960-61	1	2,497	19,333
15	Broach . .	1958-59	1	1,894	18,637
		1960-61	1	1,917	19,339
16	Surat . .	1958-59	2	5,819	8,429
		1960-61	2	6,031	17,044
17	Dangs . .	1958-59	..	..	..
		1960-61	..	..	..
State Cooperative Bank	. .	*1960-61*	*1*	*92*	*193,266*

NOTE:
Figures for 1960-61 are provisional.

Source:
Handbook of Basic Statistics, Gujarat State, 1961

STATEMENT XII.21

Long term credit by cooperative banks

State/District	Year	No. of banks: Central land mortgage bank	No. of banks: Primary land mortgage banks	Long term loans supplied (Rs. in thousand): Central	Primary	Total
1	2	3	4	5	6	7
GUJARAT . . .	**1951-52**	**1**	**4**	**13,882**	**429**	**14,311**
	1955-56	**1**	**4**	**11,220**	**579**	**11,799**
	1960-61	**1**	**4**	**37,591**	**418**	**38,009**
Kaira . . .	1951-52	..	1	..	77	..
	1955-56	..	1	..	84	..
	1960-61	..	1	..	70	..
Baroda . . .	1951-52	..	1	..	211	..
	1955-56	..	1	..	317	..
	1960-61	..	1	..	258	..
Broach . . .	1951-52	..	1	..	127	..
	1955-56	..	1	..	172	..
	1960-61	..	1	..	31	..
Surat . . .	1951-52	..	1	..	14	..
	1955-56	..	1	..	6	..
	1960-61	..	1	..	59	..

Source:
The Registrar, Cooperative Societies, Gujarat State

Non-agricultural Credit and Non-credit

38. The cooperative activities which were originally restricted to the agricultural field have been making notable progress even in the formation of non-agricultural societies which numbered 4,922 in 1960-61, had a total membership of 674,681 and advanced nearly Rs. 14 crores to its members.

Medium and Long Term Credit

39. Apart from short term credit made available by the primary societies, the facilities for the supply of medium and long term loans expanded *pari pasu*. In 1960-61 the State had in addition one State Cooperative Bank and 21 units working as banking unions and advancing loans for non-industrial purposes, which respectively claimed a total membership of 92 and 30,310 and loans advanced Rs. 193,266,000 and Rs. 208,322,000.

LAND MORTGAGE BANK

40. The Land Mortgage Bank was originally established by the former Government of Saurashtra for advancing loans at 6¼ per cent interest to agriculturists to enable them to pay compensation to Girasdars. At present, the Bank advances loans for various agricultural purposes such as (i) improvement of land, (ii) purchase and acquisition of title to agricultural lands by tenants, (iii) liquidation of debts under the Bombay Agricultural Debtors' Relief Act, (iv) construction and repairs to wells, tanks, etc., (v) protection of land from flood, erosion, etc., (vi) bunding, (vii) purchase of oil-engines, pumping sets, electrical motors, tractors and other agricultural machinery, (viii) construction or repairs to houses for agricultural purposes or farm houses, (ix) land reclamation, etc.

41. From the beginning till 30th June, 1964, the Bank has advanced the following amounts by way of loans for various purposes.

	Purpose	*Number*	*Amount* Rs.
(i)	Acquiring occupancy rights	..	26,269,236
(ii)	Sinking new wells	55,646	72,859,419
(iii)	Repairs to old wells	12,000	8,601,546
(iv)	Purchase of oil-engines, electrical motors, etc.	40,314	130,171,618
(v)	Purchase of tractors	1,132	16,967,326
(vi)	Other improvements	..	44,956,050
	Total		**299,825,195**

The head office of the Bank is located at Ahmedabad with 132 branch offices at various taluka headquarters in the State. By advancing loans at reasonable rates of interest, the Bank has saved the agriculturists from exploitation by money-lenders. The activities of the Bank have proved a boon to the peasantry and resulted in the improvement of agricultural production and development of lands, an aspect which is truly reflected in the recent change in its name from the Gujarat State Cooperative Land Mortgage Bank Limited to the Gujarat State Cooperative Land Development Bank Limited.

42. The State also had 4 primary institutions in Mainland Gujarat besides the State Land Mortgage Bank at the centre which catered to the needs of the entire State. During this period both the Central as well as Primary Land Mortgage Banks made remarkable progress. The total membership of the latter was 24,720, while that of the central body 218,056. The multifarious and progressive activities which the State Land Mortgage Bank now renamed as the State Land Development Bank has undertaken in financing agricultural improvement will be evident from the loan advances made which amounted to Rs. 418,000 for the 4 primary institutions, but rose as high as Rs. 37,591,000 for the central institution.

COOPERATIVE MARKETING

43. Cooperative marketing and warehousing play an important part in stimulating agricultural production by eliminating the middleman, who pockets the lion's share of profits accruing from fluctuations in prices as also from the staying power he possesses by holding back the stocks during the slump period and releasing them when the prices are favourable. That this phase of cooperative programme has made significant progress will be seen from the Statement XII.22 on the next page reviewing its activities between 1951 and 1961.

44. The total number of primary marketing societies in the State as a whole has risen from 119 in 1951 to 272 in 1961, with corresponding increase in membership in all the districts, except Mehsana, Baroda and Broach, where it has gone down. The number of godowns at Mandi centres has risen during the same period from 11 to 75.

STATEMENT XII.22

Progress in cooperative marketing

State/District	No. of primary marketing societies			No. of primary agricultural credit societies affiliated during 1955-56 to 1960-61	Number of members served		
	1951	1956	1961		1951	1956	1961
1	2	3	4	5	6	7	8
GUJARAT	**119**	**172**	**272**	**4,533**	**114,027**	**160,054**	**81,836**
1 Jamnagar	..	1	14	208	..	14	543
2 Rajkot	2	7	18	268	..	141	1,117
3 Surendranagar	2	8	10	220	146	742	704
4 Bhavnagar	2	4	11	378	29	469	1,566
5 Amreli	2	2	10	286	99	96	389
6 Junagadh	..	9	19	417	..	190	1,307
7 Kutch	..	..	7	143	..	..	9
8 Banaskantha	1	2	8	306	250	305	1,114
9 Sabarkantha	2	4	8	149	423	811	1,210
10 Mehsana	10	10	15	114	66,720	75,320	3,003
11 Ahmedabad	8	13	11	215	544	3,293	4,231
12 Kaira	15	24	21	307	5,741	9,898	8,484
13 Panchmahals	13	12	16	587	8,835	9,222	9,820
14 Baroda	9	9	23	353	13,317	29,824	5,418
15 Broach	14	15	12	193	5,638	8,293	4,618
16 Surat	39	52	67	368	12,285	21,436	38,240
17 Dangs	..	..	2	21	..	..	63

State/District	Volume of agricultural business conducted (in '000 Rs.)		No. of godowns at mandi centres			No. of rural godowns		
	First Plan	Second Plan	1951	1956	1961	1951	1956	1961
1	9	10	11	12	13	14	15	16
GUJARAT	**202,618**	**363,358**	**11**	**28**	**75**	..	**37**	**302**
1 Jamnagar	..	..	..	..	5	..	..	..
2 Rajkot	..	..	..	..	..	..	..	..
3 Surendranagar	..	391	..	7	11	..	..	12
4 Bhavnagar	23	305	..	..	5	..	27	44
5 Amreli	25	105	2	6	10	..	..	18
6 Junagadh	..	57,000	..	..	..	..	..	57
7 Kutch	..	891	..	..	..	..	..	19
8 Banaskantha	..	..	..	..	..	..	..	11
9 Sabarkantha	..	8,167	..	4	13	..	..	..
10 Mehsana	..	..	..	..	1	..	..	24
11 Ahmedabad	15,969	40,709	8	10	12	..	..	16
12 Kaira	4,723	12,186	..	..	..	..	2	57
13 Panchmahals	11,870	31,670	1	1	7	..	..	2
14 Baroda	..	1,287	..	..	3	..	..	14
15 Broach	86,277	122,853	..	..	8	..	8	9
16 Surat	83,731	87,675	..	..	..	..	..	19
17 Dangs	..	119	..	..	..	..	..	..

NOTE:
The Third Plan target for the volume of agricultural business conducted is not available.

Source:
The Registrar, Cooperative Societies, Gujarat State

The volume of transactions carried out in the sale of agricultural commodities rose from Rs. 20 crores during the First Plan to Rs. 36 crores during the Second, and will expand still further during the Third. Simultaneous expansion of warehousing facilities is also reflected in the number of rural godowns which rose from 37 in 1956 to as many as 302 in 1961. The number of districts where cooperative marketing was not introduced was reduced from 4 in 1951 to 2 in 1956 and to nil in 1961. Even the backward and forest area of the Dangs can boast of two primary marketing societies in 1961 as against none in the preceding years.

45. The march of cooperative activities in the State discloses a very satisfactory progress made in the expansion and enlargement of the field of their operation from one Plan to another, agricultural as well as non-agricultural, credit as well as non-credit. Even the field of cooperative farming, about the success of which there is so much apprehension, has not been left untouched, though efforts so far made have not shown any significant results. There is every reason to believe that expansion of panchayat and cooperative activities which stimulate initiative and promote agricultural development and economic progress, will, in course of time, go a long way in achieving the desired objective of regeneration and reconstruction of the countryside.

(ii) FISHERIES

46. Gujarat has a long coast-line extending over more than 1,000 miles, the longest among the maritime States of India, which has a total coast-line of 3,000 miles. In an area mostly inhabited by Hindus, sentimental grounds formerly prevented any appreciable exploitation of this important branch of industry with which Gujarat has been favoured by nature. But after Independence noteworthy progress has been registered in the development of fisheries, coastal as well as inland. In the year 1961-62, there were 184 fishing villages, 30,000 active fishermen and 3,600 fishing crafts of which 640 were mechanised. While the annual fish landings amounted to 81,450 tons, catch per boat and fisherman was 22,988 and 2,579 kg. respectively. The total provision for the development of fisheries during the Second Plan was Rs. 59.55 lakhs against a total expenditure of Rs. 66 lakhs, the provision for the Third Plan being 1.29 crores. With a view to financing fishermen, 74 primary cooperative societies have been started with an apex organisation at the top rendering very valuable service in the expansion of this industry. Both these bodies jointly account for a total membership of 11,617.

(iii) FORESTS

47. The forests of Gujarat State are concentrated in the eastern hilly regions and part of Junagadh district. Forests cover an area of 6,135 sq. miles which constitute 9 per cent of the State territory as against 24 per cent for India. The share of forests in the total geographical area is thus found to be much lower than the minimum standard of 33 per cent recommended in the National Forest Policy. Such a low percentage of afforestation adversely affects the State by denying the protecting cover forests provide to soils against flood and erosion. The forests of Gujarat fall under four types: (1) moist deciduous, (2) dry mixed deciduous, (3) dry scrub variety and (4) mangrove forests. Chief forest products are teak, bamboo, yellow wood, red wood, black wood, etc., and the minor ones are grass, honey, wax, etc.

48. Separate figures of provision under the First and the Second Plans under this head are not available. Available figures of expenditure show that an amount of Rs. 37.22 lakhs was spent in the year 1960-61 under all the schemes, as against the average of Rs. 15.87 lakhs spent in the first four years of the Second Plan. That the year 1960-61 exceeded the average physical target of the first four years of the Plan is again witnessed by the achievement of 600 acres of teak and 17,000 acres of non-teak plantation during 1960-61 against the average of 400 acres of teak and 9,400 acres of non-teak plantation in the four years that preceded it.

49. The schemes taken up during the First and Second Plan periods for the development of forestry can be broadly classified into (i) afforestation and conservation, (ii) economic plantations, (iii) improvement of minor forest products, (iv) protection of wild life and (v) miscellaneous schemes comprising schemes of forest consolidation,

forest communications, forest buildings, protection of forest and forestry training.

Third Plan

50. During the first three years of the Third Plan, Rs. 73.14 lakhs were spent on the development of forests, as against Rs. 77.85 lakhs to be spent during the last two years. Thus out of the total provision of Rs. 223.95 lakhs, the aggregate amount spent during the entire Plan period would come to about Rs. 151.00 lakhs. Development programme for the Third Plan comprises schemes for rehabilitation of degraded forests; plantation of valuable species like teak and *khair*; fodder plantation; development of minor forest products and forest industries; and improvement of road communications and transport in forest areas. Other schemes include schemes for the benefit of forest labourers, survey of forest areas and resources, research, training of officers and staff of the Forest Department and preservation of wild life.

SECTION 6

IRRIGATION

51. The irrigation programme of the State will be discussed under two heads; (a) small or minor irrigation projects and (b) major irrigation projects.

STATEMENT XII.23

Targets and achievements in State Irrigation Projects

(a) *Minor Irrigation Projects*

State	(1) Expenditure in '000 Rs. (2) Area in '000 acres	First Plan total	First Plan target	1956-57	1957-58	1958-59	1959-60	1960-61	Second Plan total	Second Plan target	Third Plan target
1	2	3	4	5	6	7	8	9	10	11	12
GUJARAT	**Expenditure in '000 Rs.**	**28,661**	**N.A.**	**14,466**	**12,757**	**11,098**	**5,940**	**7,827**	**52,088**	**44,646**	**51,293**
	Area in '000 acres	**106**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**81**	**Not fixed**	**134**

N.A.=Not available

NOTE:

Year-wise break up for the First Plan is not available.

Source:

Public Works Department, Government of Gujarat

STATEMENT XII.24

Targets and achievements in State Irrigation Projects

(b) *Major and Medium Irrigation Projects*

State	(1) Expenditure in '000 Rs. (2) Area in '000 acres	First Plan total	First Plan target	1956-57	1957-58	1958-59	1959-60	1960-61	Second Plan total	Second Plan target	Third Plan target
1	2	3	4	5	6	7	8	9	10	11	12
GUJARAT	**Expenditure in '000 Rs.**	**184,990**	**N.A.**	**85,524**	**79,118**	**55,364**	**56,539**	**76,962**	**354,737**	**430,990**	**517,400**
	Area in '000 acres	**58**	**N.A.**	**NA.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**588**	**..**	**1,077**

N.A.=Not available

NOTE:

Year-wise break-up for the First Plan is not available.

Source:

Public Works Department, Government of Gujarat

Before we proceed to discuss the targets and achievements in the development of irrigation in the State, it is necessary to have a clear background of the nature and sources of irrigation given in the following tables.

STATEMENT XII.25

Area sown and area irrigated under food and non-food crops, 1960–61

(in '00 acres)

Sl. No.	Crops	1960–61 Area sown	1960–61 Area irrigated	Col. No. 4 as per cent of col. 3
1	2	3	4	5
	A—Food Crops			
1	Rice . .	13,175	1,644	12.48
2	Wheat .	8,838	5,392	61.01
3	Jowar . .	32,495	799	2.46
4	Bajri . .	35,658	947	2.66
5	Gram . .	1,425	67	4.70
6	Tur . .	2,099	..	..
	Total A	*118,606*	*12,120*	*10.22*
	B—Non-food Crops			
7	Cotton .	44,545	2,599	5.83
8	Groundnut .	48,966	540	1.10
9	Tobacco .	2,289	379	16.56
	Total B .	*122,759*	*6,014*	*4.90*
	Total A+B	**241,365**	**18,134**	**7.51**

Source:

Handbook of Basic Statistics, Gujarat State, 1962

STATEMENT XII.26

Area irrigated by source, 1960-61

Sl. No.	Source	Per cent to total net area irrigated
1	2	3
	Total	**100.00**
1	Government canals . . .	9.55
2	Private canals . . .	0.09
3	Wells	83.13
4	Tanks	1.87
5	Others	5.36

Source:

Handbook of Basic Statistics, Gujarat State, 1962

52. Out of the total cropped area of 241.36 lakh acres in the State, 18.13 lakh acres or 7.5 per cent only were irrigated in 1960-61 distributed in the ratio of 10.22 per cent for food crops and 4.90 per cent for non-food crops. The main source of irrigation in Gujarat has been well irrigation which accounts for a little over 83 per cent of the net area irrigated. Irrigation by canals is insignificant (10 per cent), and by tanks very meagre (2 per cent). This picture reveals a complete absence of irrigation works, minor, medium or major, during pre-Independence days. The first and foremost task which the Government had, therefore, to tackle in promoting agricultural production was to plan and execute a number of minor and major irrigation schemes to harness the water resources of the State. For minor irrigation projects, the First Plan made a total provision of Rs. 286 lakhs, which was raised to Rs. 520 lakhs during the Second and maintained almost at the same level during the Third, which has provided a total outlay of Rs. 512 lakhs. Area which each successive Plan aimed at irrigating has been estimated at 106,000 acres during the First, 81,000 acres during the Second and 134,000 acres during the Third Plan period. The provision made for the major and medium irrigation projects has been progressively increasing both in respect of the targets of expenditure as well as irrigation potential to be created. While the provision in terms of rupees has risen from Rs. 18.5 crores in the First Plan to Rs. 51.7 crores during the Third Plan, estimates of additional acreage to be brought under irrigation have risen from 58,000 to 1,077,000. The State Government has thus been making an all-out effort to make amends for the past lapses by investing increasing amounts of money to accelerate the pace of irrigation and increase agricultural production. It must, however, be noted that in spite of appreciable increase in the irrigation potential of the State, corresponding increase in the land under irrigation has been lacking, as all the additional sources of irrigation which have been created by the various projects are not utilised to the maximum extent possible as will be seen from Statement XII.27 on the next page.

53. Out of a total irrigation potential of 884,800 acres the net area irrigated comes to

312,400 acres or 35.31 per cent only. These figures indicate the necessity of intensive efforts to enable the agriculturist to switch over from dry farming to wet farming by making available to him the necessary finances and technical advice for raising crops suited to the soil and water in the area under command. For, the cultivator is by nature pessimistic of the results of new changes which he hesitates to adopt by giving up the traditional mode of agriculture, cropping pattern and farming practices. This would in turn require advance planning and experimentation as regards the quality of water, soil test and the nature of crops that would be benefited by its utilisation. This is only possible, if experimental stations are opened *pari pasu* with the starting of the project so that essential information about the seed requirement, dosage of fertilizer, the number of waterings needed, etc., can be made timely available to the farmer.

STATEMENT XII.27

Irrigation potential and its utilisation at the end of the Second Five Year Plan

Sl. No.		Project	Irrigation potential created at the end of the Second Five Year Plan ending March 1961 (in acres)	Utilisation of irrigation upto 1961 (in acres)	Per cent of utilisation to irrigation potential
1		2	3	4	5
A	1	Major irrigation projects .	431,000	78,900	18.31
	2	Medium irrigation projects .	193,200	85,100	44.05
		Total A .	*624,200*	*164,000*	*26.27*
B	3	Small irrigation projects .	187,600	94,600	50.43
	4	Tube-wells .	73,000	53,800	73.70
		Total B .	*260,600*	*148,400*	*56.95*
		Total A+B	**884,800**	**312,400**	**35.31**

Source:
Report of Water Utilisation Committee appointed by Government of Gujarat, 1961

SECTION 7

VILLAGE AND HOUSEHOLD INDUSTRIES

Characteristic Features

54. Gujarat has been well-known for ages past for its household industries and artistic handicrafts especially in centres like Ahmedabad, Cambay and Surat. According to the *Report on Housing and Establishments*, the chief household industries practised include livestock and hunting, cotton and other textiles, woodwork, leather products, and pottery. There are several industries of varying importance, not so significant in size, but valued for their artistic excellence. They are jewellery, embroidery, brocade, *jari*, etc. Still others cater to the demand for consumer goods like rice and flour mills and bakery, or carry on sundry activities like bicycle, watch and clock repairing. The locational pattern of such industries mainly depends on a number of factors like availability of raw material, labour, markets, nearness to ports and other centres of communication and trade, etc.

55. Cotton textiles, the most important large-scale industry, is also one of the leading household industries, employing both handlooms and power-looms. It is concentrated in Ahmedabad, Broach, Kaira, Surat and Mehsana districts owing to their being extensive cotton-growing areas. Others employing large numbers are tailoring, rice and flour mills, sundry hardwares, jewellery, *bidi*-making, woodwork, leather products and pottery. Jewellery, silverware, etc., flourish in Rajkot, Junagadh, Mehsana, Ahmedabad, Kaira and Surat districts supported as they are by better agriculture and material condition of the people.

56. In the industrial set-up of the State, household industries claim a majority of the establishments, most of them being located in rural areas serving the needs of the rural economy. Units worked in villages are naturally smaller in size. While larger units are usually found in urban areas, several of the traditional crafts like making garments, jewellery, processing of food-stuffs,

leather footwear, etc., are located alike in towns and villages.

57. Most of the village workshops use only man-power. Liquid fuel, coal, wood, etc., are less extensively used, while electricity runs very few establishments. In urban areas also no power is used by the majority. Though the use of electricity is increasing, it claims only a little over one-fourth of the total units. This emphasises the household and self-employed nature of village industries. In rural areas, electricity is utilised more in Kaira, Surat, Baroda and Ahmedabad, a fact which points to the relatively greater extent of mechanisation of village industries in these districts. In urban areas, textiles, printing presses and such other industries employ electricity, while flour mills prefer liquid fuel, and metal-works use coal and wood. Even in the textile industry, half of the units are household ones run without any power. Other industries with most of the establishments using no power are tailoring, tobacco products, carpentry, watch repairing, goldsmithy and jewellery, transport equipment including carts, barrows, cycles, etc., leather work and pottery. Liquid fuel and coal are used in a fair measure in food-stuffs, basic metals and sundry hardware industries, while electricity in printing, machinery and medicine.

58. Considered by the size of establishments, household industries engaging from 1 to 9 workers overwhelmingly predominate the industrial structure in the State. A large majority of these works without power. Most of the workshops employ five persons or less to which class are confined units with no power. Rural areas have a larger number of single member units than urban, but the reverse is the case with the larger ranges of employment which generally thrive in towns.

Employment Potential

59. Data compiled from household schedules show that household industries are generally combined with cultivation in rural areas. The two activities are necessarily supplementary to each other in villages. Over two-thirds of the households engaged in household industry inhabit villages. One-third of these households is engaged in livestock, forestry, fishing and hunting and two-thirds in manufacture. But activities like forestry, fishing, mining and quarrying and industries worked on factory basis are less amenable to be pursued or run as household industries. Traditional craftsmen like shepherds, spinners and weavers, tailors, carpenters, shoemakers, and various metal smiths hold their own in household industry, in which, livestock and textile workers are numerically the most important.

60. In the different activities grouped under household industry, livestock, forestry, fishing and hunting in rural areas claim about five times the households in urban areas, showing that these activities are essentially complementary to agriculture and pursued mostly in villages. The very fact that most of the households working in livestock as a household industry are also engaged in cultivation in rural areas shows its importance as an activity supplementary to agriculture. On the other hand, in the case of manufacturing most of the households engaged therein do not pursue cultivation, though about three-fourths of such households live in villages and only one-fourth in towns.

61. By its very nature household industry can provide employment to people in smaller units. Thus, though a larger number of establishments may be working on household basis, the employment potential would be comparatively small. The scope for hired labour in household industry is also more casual and less extensive because it is mostly dependent on the family workers. Hired workers are generally employed when the household industry is worked on a permanent basis. Such labour is found more in manufacturing than in agriculture, livestock and similar other activities, and that too in a more pronounced manner when practised for over seven months in a year.

62. Households engaged in livestock and hunting along with cultivation pursue the former for more than ten months in a year. It is thus an industry which provides employment on a more or less permanent basis. As far as cotton textiles are concerned, the industry is not pursued on a permanent basis in any large measure by households also engaged in cultivation. But worked independently, it provides more or less uniform work throughout the year. However, 41 per cent of total households in this industry work for less than ten months in a year. There

is a demand for hired workers only when the working period extends to more than six months. Those working in tailoring in addition to agriculture mostly work for five to nine months in a year. But tailors normally have sufficient employment not to need the additional occupation of cultivation as a majority of them remains occupied during the greater part of the year. As regards carpenters, wood workers and leather workers, a large number of them in rural as well as urban areas pursues their traditional craft independently of any other occupation. Those who combine it with agriculture are not unexpectedly found in villages in larger numbers. When the occupation is secondary to agriculture, it is worked for a shorter time in the year, but when pursued independently two-thirds of the households find permanent employment therein, a majority of them being found in urban areas. Similarly households engaged in pottery without the subsidiary occupation of cultivation are provided work for ten months in a year. Obviously it cannot be pursued during monsoon and, therefore, most of the households work for seven to nine months. Livestock generally engages workers alround the year, more so when worked independently. It will thus be seen that the traditional village artisans also have cultivation as a subsidiary occupation but the number of workers and the period of work are high when the crafts are practised exclusively. These artisans are generally employed for ten months in a year, except for potters, brick and tile makers most of whom work for five to nine months.

63. In fine, though household and village industries claim a very large number of manufacturing units, they employ relatively few persons and even less hired workers. They do not provide work uniformly throughout the year. Yet their importance to the State's economy cannot be belittled. Pursued in smaller units, they can easily be established and run without much capital, elaborate machinery and power. They also provide the best supplementary activity to agriculture when the latter cannot adequately support the villager. Last, but not the least, as they are run on family and self-employed basis, they can avail of the help of family labour and satisfy as well the creative urge and artistic impulse of the artisan.

PLAN EXPENDITURE

64. The following table gives Plan expenditure on village and household industries in the State during the Second and Third Plan periods.

STATEMENT XII.28

Plan expenditure in village and household industries in the State

(Rupees in lakhs)

Sector	1956–57	1957–58	1958–59	1959–60	1960–61	Second Plan total	Percentage breakdown	Expenditure *per capita* of all workers returned under Category IV of 1961 Census	Third Plan provision	Percentage breakdown	Workers of Category IV
1	2	3	4	5	6	7	8	9	10	11	12
Village and Household Industries . .	*62.06*	*30.64*	*48.88*	*29.15*	*41.76*	*212.49*	*100.00*	*38.24*	*211.14*	*100.00*	*555,606*
(a) Handloom .	6.07	6.26	9.92	9.19	5.77	37.21	17.51	6.70	65.00	30.78	..
(b) Khadi and Amber Charkha	..	..	..	..	..	..	..	..	..	..	..
(c) Silk and sericulture .	..	..	..	..	..	..	..	..	..	..	..
(d) Handicrafts .	1.57	1.69	13.5	2.08	1.39	8.08	3.80	1.45	16.00	7.58	..
(e) Coir . .	..	..	..	0.02	0.02	0.04	0.02	0.01	2.40	1.14	..
(f) Other Village Industries (including Khadi) .	10.44	13.06	13.09	11.26	21.78	69.63	32.77	12.53	10.00	4.74	..
(g) Small-scale industries .	43.98	9.63	24.52	6.60	12.80	97.53	45.90	17.55	117.74	55.76	..

NOTE:

Data for the First Five Year Plan 1951-52 to 1955-56 are not available.

Source:

The Registrar, Cooperative Societies, Gujarat State

Only a few decades ago, the general economic structure of the State and the country was characterised by an economy, which had for its primary occupation cultivation of land and production of hand-made goods in the household. In the field of non-agricultural pursuits, production was limited to traditional crafts then worked by village artisans and craftsmen. The self-sufficient village economy had its own weaver, carpenter, mason, blacksmith, shoemaker, oil *ghani*, etc. There was another class of craftsmen engaged in the production of artistic goods of varied excellence and design which were developed to perfection and were in great demand in the local as well as foreign markets. All production of non-agricultural goods was thus limited to household operation. But with the advent of industrial revolution, a gradual change in the technique of production was brought about by the introduction of machinery. The result was that while the second category of handicrafts suffered a serious set-back, some of those engaged in the first category were displaced and rendered jobless.

65. Cottage and household industries thrived in the past both in villages and towns. Traditional craftsmen and artisans were required by both the sectors of the State economy. Despite the acute and healthy competition of modern times, they are still no less in demand either in villages or in towns, though they are finding it increasingly difficult to make a comfortable living. Even in the present day Gujarat, as already seen in Chapter X on Working Population, household and cottage industries still hold an important place, both in rural as well as in urban areas, and engage 6.6 per cent of its total labour force. The industries which are yet important in the household field, claim such avocations as cattle-breeding and livestock raising, textile weaving on handloom, processing of food-stuffs, carpentry, smithy, tailoring, production of leather goods, basketry, soap-making, wood-carving, etc. Production of *khadi* on commercial lines has also made noteworthy progress as evidenced by the efforts the Khadi and Village Industries Board has been making in the State by giving employment to 20,423 persons and producing 14.71 lakh yards of *khadi* cloth worth about Rs. 38.78 lakhs.

66. In the context of country's planning, village and household industries assume great significance by providing alternative means of livelihood in villages subjected to heavy pressure on land and large-scale migration towards towns. The rehabilitation of former industries operated in the household requires special attention to bring about a balanced distribution of the labour force between agricultural and non-agricultural pursuits in villages. With this end in view, the State Government had provided substantial funds for the promotion of village and household industries during the Second and Third Plan periods, Rs. 212.49 lakhs and Rs. 211.14 lakhs respectively. Percentage distribution between the various sub-heads during the Second Plan shows greater allocations made for other village industries including *khadi* (32.77 per cent), small-scale industries (about 46 per cent) and handloom (17.51 per cent). The Third Plan lays still greater stress on handloom and small-scale industries by earmarking 30.78 per cent and 55.76 per cent respectively of the funds allotted to this sector.

SECTION 8

POWER PROJECTS, INDUSTRIES AND MINING

(a) **Power**

67. It is not possible to have a complete picture of power projects in the State and the progress made in their development between 1951–61, as complete data relating to Plan expenditure as well as of physical targets and achievements are not available for the State and districts. Some information which is, however, available for the different areas, namely, Mainland Gujarat and Peninsular Gujarat comprising Saurashtra and Kutch, is examined below to give an idea of governmental activity prior to 1960 and that of the Gujarat Electricity Board thereafter.

STATEMENT XII.29

Gujarat Electricity Board—financial targets and achievements

(Rs. in lakhs)

Region	First Five Year Plan		Second Five Year Plan		Third Five Year Plan	
	Targets	Achievements	Targets	Achievements	Targets	Achievements
1	2	3	4	5	6	7
GUJARAT	**N.A.**	**N.A.**	**1,267.51**	**884.96**	**4,638.00**	**4,638.00**
Saurashtra . .	215.00	164.03	1,056.34	677.14	..	..
Kutch . .	112.20	23.30	210.45	140.59	..	..
Total . . .	**327.20**	**187.33**	**2,534.30**	**1,702.69**	**4,638.00**	**4,638.00**

N.A.=Not available

Source:
Industries in Gujarat by Directorate of Industries, Gujarat State, p. 65

STATEMENT XII.30

Gujarat Electricity Board—physical targets and achievements

Item	First Five Year Plan		Second Five Year Plan		Third Five Year Plan			
	Targets	Achievements	Targets	Achievements	Targets	Achievements as on 31st March, 1964	Achievements (anticipated)	Anticipated achievement at the end of Third Plan
1	2	3	4	5	6	7	8	9
Installed capacity (MW) added by the Board only	N.A.	32.47	108.082	90.732	278.48	14.48	278.48	401.682

N.A.=Not available

Source:
Industries in Gujarat by Directorate of Industries, Gujarat State, p. 66

68. The Gujarat Electricity Board was set up as a statutory body with effect from 1st May, 1960. Prior to that date, north and south Gujarat regions were attended to by the then Bombay Electricity Board and the Saurashtra and Kutch areas by the State Electricity

Departments. Figures of financial targets and achievements are not available for the First Plan for the north and south Gujarat regions. In Saurashtra and Kutch, achievements fell very short of the financial targets, both during the First as well as the Second Plan period. The combined targets for the Second Five Year Plan for the three different units under review show a total outlay of Rs. 2,534.30 lakhs as against the total achievement of Rs. 1,702.69 lakhs, registering a net shortage of Rs. 831.61 lakhs or 32.81 per cent. The State has made a total provision of Rs. 4,638 lakhs for the Third Plan period, all of which have been expended by the last year of that Plan. Physical targets and achievements show that the installed capacity planned by the Gujarat Electricity Board for the Third Five Year Plan (278.48 MW) has been achieved and is expected to be exceeded at its end, when it will add 401.682 MW to the capacity existing in 1961.

69. Electricity is not only the most important basic requirement of industry; it is a *sine qua non* for all industrial development in the modern age. This somewhat obvious fact has been underlined and substantiated by the data analysed in Chapter IV of the *Report on Housing and Establishments*. Electricity runs over a half (51.77 per cent) of the total establishments using power or fuel which employ more than three-fourths (76.05 per cent) of persons working in such units. Electrically run establishments engage more workers than all the rest put together. Industries also absorb a major bulk of the total power produced in the State. In 1961-62, for example, about 80 per cent of the electric power sold was consumed by industries as against 20 per cent by the remaining uses including domestic.

70. The use of power is naturally more extensive in large-scale industries. The proportion of establishments using electricity is the largest among units employing at least a hundred persons and even less, 50 to 99 persons. Electric energy also claims the highest number of persons employed per unit (19.47) among all types of establishments run with or without power. The industries making the greatest use of electricity are the manufacture of cotton and silk textiles in mills and power-looms, ginning factories, medicine and pharmaceutical preparations, manufacture and assembling of machinery, repairs and servicing of motor vehicles, printing presses, manufacture of wagons, machine tools, saw-mills, oil-mills and processing of food-stuffs. Even in small-scale and household industries, increased mechanisation has resulted in a higher demand for power, especially electricity, which facilitates work and reduces cost. The most glaring instance is furnished by Surat where many resourceful weavers have converted their handlooms into power-looms by purchasing the necessary spare parts and making the required adaptations in their looms. A majority of the electrically run units works on household or small-scale basis which suggests the preference even of small operators for this kind of energy. The importance of such small-scale establishments in the present day economy lies in the fact that they provide a much needed means of increased industrial output where finances required for larger units are not available. Even in agriculture, which is not only the most important economic activity but also supplies the basic materials for many other industries, electricity can play a significant role in stepping up production by aiding lift irrigation on which agriculture in the State largely depends. These factors add to the importance of electricity which remains an essential requirement for the big industries offering the largest employment opportunities.

71. The shortage of power has operated as a severe bottle-neck to establishment of new industries in the State. The pace of its generation has been slower in Gujarat during the decade 1950–60 than the rate of all-India expansion. This handicap has not only arrested industrial development at the desired speed but has also affected established industries, the power-supply to which had at times to be cut off or staggered as there was not enough energy to go round. Within a year of the formation of Gujarat State, the Government had to impose restrictions on the use of electricity. From 1961 onwards, a series of orders placed limitations on the consumption of electric power. The restrictions took various forms. In the industrial sector, new connections for heavy load had to be refused or restricted, and use by existing consumers was limited to periods other than peak

hours between 6 and 10 p.m. While essential services like railways, water-pumping, hospitals, printing presses of daily newspapers and factories having continuous processes were exempted from the power-cut, even low tension motive power users were not to be supplied energy in peak hours. In Ahmedabad and some other towns the supply to industrial establishments was staggered by withholding power to some of them on each of the days in the week in turn. Power was ordered not to be supplied for commercial lighting such as advertisements, neon signs, posters and displays; nor could it be had for festive lighting, illuminations, lifts for serving one storey and air-conditioning except where essential for factory requirements or medical preparations. The use of electricity for domestic appliances was also checked and even in the consumption of lights and fans, a ten per cent cut was applied in cases where it exceeded 50 units per month. Some of these restrictions were relaxed afterwards, but acute power shortage still continues to be felt.

72. That the existing shortage is likely to endure for some time to come is obvious from the fact that even after the expansion envisaged in the Third Plan, the firm capacity of 482.5 MW is expected to fall short of the anticipated load of 520 MW by 37.5 MW. Another handicap to industrial development is the high cost of thermal power which is the only source of electric energy generated from coal carried over long distances. A big step forward is no doubt taken recently with the commissioning of Dhuvaran Project which will feed power in considerable quantity into the north Gujarat and Saurashtra grid systems.

An overall picture of the physical achievements during the last decade in terms of installed capacity and generation of power shows that from 129 MW in 1950, the installed capacity rose to 342 MW or 9.75 per cent per annum.

73. The State can be divided into four distinct regions, viz., (1) north Gujarat, (2) south Gujarat, (3) Saurashtra and (4) Kutch, from the point of power-supply position in 1960. The north Gujarat region, fed by the Sabarmati Power Station (157.5 MW), covered Mainland Gujarat except the districts of Broach, Surat and the Dangs. The south Gujarat region served by Utran Power Station and grid system extended over Broach and Surat districts. The Saurashtra region which extended over the whole of the peninsula was covered by four power systems, viz., Rajkot-Shahpur, Bhavnagar-Palitana, Jamnagar-Sikka and Dhrangadhra-Surendranagar with an aggregate capacity of 43 MW. Kutch district fed by a steam plant of 6 MW at Kandla with an aggregate capacity of 2.78 MW formed a separate region by itself.

Second Plan

74. During the Second Five Year Plan, the development activities brought in its wake installation of steam power-stations of the aggregate capacity of 32 MW each at Sikka, Bhavnagar, Shahpur and Porbandar. The generating capacity of each of the power-stations at Utran and Ahmedabad was raised by 15 MW. Simultaneous increase was also noticed in the grid system which was extended over Mehsana district and the Saurashtra region.

Third Plan

75. The Third Plan envisages an addition of 338 MW besides 75 MW that would be made available from the atomic power station near Tarapore in Maharashtra, which is expected to make available a total of 150 MW of power during the Fourth Plan period. The Central Thermal Power Station at Dhuvaran with four turbo-generating sets with a capacity of 63.5 MW each has been set up during the Third Plan. Two of the sets have already been commissioned and the remaining two will be commissioned by December, 1965. The capacity of Utran Power Station will be enhanced by 30 MW with the addition of one generating set at a cost of Rs. 2.6 crores. With the addition of one 30 MW set, the Ahmedabad Electricity Company will also raise its installed capacity to that extent. Whereas the capacity of Kandla Station would be raised by 10 MW at an estimated cost of Rs. 3.1 crores, that of Saurashtra will be increased on its connection with Dhuvaran. During the current Plan about 215 miles of 132 KV lines, 730 miles of 66 KV lines and 2,472 miles of 33 KV lines will be built linking all the power-stations in all the regions of the State, excepting Kutch. The far-reaching effects of this development

programme will be that the shortage of power will be considerably relieved and its cost reduced by effecting the closure of costlier diesel stations and introduction of lower and uniform rates all over the State.

FUTURE PROSPECTS

76. The State Government is in acute short supply of power which is so urgently needed for the industrial development and modernisation of its industries. This handicap has to no small extent retarded the progress of many a new industry awaiting their establishment in the State. So far, the State has been totally lacking in hydroelectric resources, which have a good potential in the Narmada River Valley Project formulated by the State. This project is estimated to yield 587 MW, if the entire water resources are utilised for power generation, which will be reduced to 170 MW after the needs of irrigation are met. There is an alternative source of power recently revealed in the State by the exploration and prospecting for oil and natural gas, which, it has been established can be worked on commercial basis at a number of places in the State, Lunej and Anklesvar in particular.

DHUVARAN THERMAL POWER PROJECT

77. The important role this project is expected to play in the economic structure of Gujarat merits a brief description of its capacity and electrification programme.

A thermal power-station with generating capacity of 254 MW has been installed at Dhuvaran during the Third Five Year Plan at a point where the river Mahi flows into the Gulf of Cambay. A 132 KV transmission line 257 miles long has been laid out. Dhuvaran is 14 miles away from Cambay, 80 miles from Ahmedabad and 45 miles from Baroda. The power-station has four turbo-generating sets with a capacity of 63.5 MW each. The first generator set was commissioned in December, 1964, second on 6th March, 1965 and the remaining two will be commissioned by the end of 1965. The total expenditure in building transmission lines, receiving stations, recirculation bonds, etc., will amount to Rs. 30.81 crores. The construction of the project was partly financed by a loan from the United States of America Agency for International Development—$ 336 lakhs in foreign exchange and Rs. 900 lakhs under P.L. 480. It will link main receiving centres of Vatva (Ahmedabad), Gotri (Baroda), Gondal (Rajkot) and Dhasa (Bhavnagar) with Dhuvaran by 132 KV transmission line. An expenditure of Rs. 2,579.38 lakhs has so far been incurred during the first 3 years of the Plan and Rs. 525.00 lakhs more will be spent during 1964-65. The capacity now planned is proposed to be doubled after 1966 to meet the ever increasing demand for power in the State.

78. Dhuvaran is the first power project of its kind in the whole country run by residual oil and gas available from the nearby fields at Cambay and Anklesvar within a radius of about 50 miles. A gas pipe-line 14 miles long has been laid between Cambay and Dhuvaran for this purpose. The power consumption was confined so far only to urban areas. On completion of the project, the rural electrification programme will be stepped up to provide more opportunities for irrigation and employment through the development of cottage and small-scale industries. The main objective of supplying cheap power at uniform rates to industries will also be fulfilled on full-fledged commissioning of the project.[1]

(b) Industries and Mining

79. The available figures of plan expenditure in respect of industries and mining are given in the following statement.

STATEMENT XII.31

Plan expenditure in industries and mining

(Rs. in lakhs)

Sector	Total First Plan period	First Plan provision	Total Second Plan period	Second Plan provision	Third Plan provision
1	2	3	4	5	6
Industries and mining .	N.A.	N.A.	394.46	476.18	741.87

N.A.=Not available

Source:

Handbook of Basic Statistics, Gujarat State, 1961

1. The State Government has introduced uniform rates for the supply of power to industries all over the State from 1st May, 1965.

Neither the figures of provision nor of expenditure under this head are available for the First Plan. The Second Plan provided Rs. 476.18 lakhs, out of which a total expenditure of Rs. 394.46 lakhs was incurred. The Third Plan raised the provision for industries and mining substantially by providing Rs. 741.87 lakhs in view of the greater need of industrialisation and

STATEMENT

Distribution of factories and workers among

Sector	Gujarat		Jamnagar		Rajkot		Surendranagar	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
1	2	3	4	5	6	7	8	9
MANUFACTURING								
1 All manufacturing	**4,084**	**360,559**	**161**	**11,136**	**335**	**12,062**	**133**	**11,471**
2 Food & kindred products	838	28,780	70	3,723	108	2,341	23	2,052
3 Textiles & their products	875	201,874	2	1,076	30	2,559	2	1,605
4 Leather & leather products	36	798	..	..	2	88	..	..
5 Rubber products	13	1,043	..	..	1	29	..	..
6 Forest products	108	4,345	3	59	..	..	..	..
7 Paper, pulp and products	21	1,702	1	(Factory closed)	2	105	..	..
8 Printing, publishing & allied industries	150	4,160	..	..	14	550	1	11
9 Chemical & allied products	98	12,945	3	1,815	6	176	3	1,149
10 Petroleum refining	21	890	2	272	4	40	..	..
11 Metals & metal products								
(a) Iron and steel	196	4,591	10	183	20	550	6	100
(b) Non-ferrous metals	77	1,348	..	..	..	..	..	..
(c) Machinery excluding transportation equipment	441	15,018	16	463	29	770	9	453
(d) Transport equipment	137	11,955	3	372	13	1,183	..	..
12 Miscellaneous industries not classified above	1,073	71,110	51	3,173	106	3,671	89	6,101
MINING								
1 All mining	**69**	**6,578**	**18**	**2,062**	**8**		**3**	**45**
2 Coal	..	..	..	..	..		..	..
3 Iron	..	..	..	..	..	..	..	..
4 Ferrous metals (manganese)	3	1,567	..	..	..	..	..	..
5 Non-ferrous metals (bauxite)	16	2,140	13	2,009	..	..	..	..
6 Petroleum and natural gas	..	..	..	..	..	..	..	..
7 Precious metals	4	137	..	..	..	..	..	..
8 Other non-metals	46	2,734	5	53	8	152	3	45

Source:

The Chief Inspector of Factories and Director of Geology and Mining, Gujarat State

exploitation of mineral resources which have come to light during the past decennium.

(i) INDUSTRIES

80. The extent of industrial development in the State and various districts will be seen from the following statement giving distribution of factories, mines and workers, among the districts of Gujarat State as in 1961.

XII.32

the districts of the State as in 1961

Sector	BHAVNAGAR		AMRELI		JUNAGADH		KUTCH		BANASKANTHA	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
1	10	11	12	13	14	15	16	17	18	19
MANUFACTURING										
1 All manufacturing	**248**	**13,382**	**53**	**1,836**	**160**	**8,916**	**44**	**3,042**	**23**	**524**
2 Food & kindred products	56	1,829	36	1,520	92	2,738	8	1,662	4	108
3 Textiles & their products	27	5,886	3	108	3	1,931	1	57	..	..
4 Leather & leather products	..	..	..	..	1	17	..	..	1	45
5 Rubber products	1	388	..	..	..	..	..	..	..	..
6 Forest products	9	145	..	..	..	..	..	..	1	22
7 Paper, pulp and products	2	21	..	..	..	..	..	..	3	81
8 Printing, publishing & allied industries	9	190	..	..	1	9	2	24	..	..
9 Chemical & allied products	10	398	3	46	7	1,077	2	(Factory closed)	1	15
10 Petroleum refining	..	..	..	..	1	6	3	335	1	9
11 Metals & metal products										
(a) Iron and steel	22	467	..	..	8	71	..	..	..	..
(b) Non-ferrous metals	..	..	..	..	..	..	..	..	..	..
(c) Machinery excluding transportation equipment	35	852	1	8	4	89	..	..	1	44
(d) Transport equipment	5	768	1	32	8	525	2	168	6	118
12 Miscellaneous industries not classified above	72	2,438	9	122	35	2,453	26	796	5	82
MINING										
1 All mining	**1**	..	**3**	**40**	**10**	**1,452**	**1**	..	..	..
2 Coal	..	..	..	..	..	..	..	..	..	..
3 Iron	..	..	..	..	..	..	..	..	..	..
4 Ferrous metals (manganese)	..	..	..	..	..	..	..	..	..	..
5 Non-ferrous metals (bauxite)	..	..	..	..	..	..	..	..	..	..
6 Petroleum and natural gas	..	..	..	..	..	..	..	..	..	..
7 Precious metals	..	..	..	..	..	..	..	..	..	..
8 Other non-metals	1	..	3	40	10	1,452	1	..	..	..

STATEMENT

Distribution of factories and workers among

Sector	Sabarkantha		Mehsana		Ahmedabad		Kaira	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
1	20	21	22	23	24	25	26	27
MANUFACTURING								
1 All manufacturing	**62**	**4,927**	**121**	**15,403**	**1,037**	**170,260**	**358**	**20,418**
2 Food and kindred products	17	856	29	1,223	58	1,028	194	5,763
3 Textiles & their products	..	..	11	8,466	184	137,273	29	7,937
4 Leather & leather products	..	..	1	21	22	426	2	62
5 Rubber products	..	..	2	27	5	96	..	..
6 Forest products	..	..	2	1,093	49	1,554	1	8
7 Paper, pulp and products	..	..	..	..	7	813	3	60
8 Printing, publishing & allied industries	1	23	..	..	78	1,949	5	96
9 Chemical & allied products	..	..	2	53	24	1,746	6	325
10 Petroleum refining	..	..	..	..	3	81	..	..
11 Metals & metal products								
(a) Iron and steel	..	..	1	10	84	1,400	7	167
(b) Non-ferrous metals	..	..	..	..	25	419	..	..
(c) Machinery excluding transportation equipment	..	..	8	224	246	7,429	21	568
(d) Transport equipment	3	74	10	282	38	3,182	16	468
12 Miscellaneous industries not classified above	41	3,974	55	4,004	214	12,864	74	4,964
MINING								
1 All mining	**4**	..	**1**	..	..	..	5	**740**
2 Coal	..	..	..	..	..	..	..	..
3 Iron	..	..	..	..	..	..	..	..
4 Ferrous metals (manganese)	..	..	..	..	..	..	..	..
5 Non-ferrous metals (bauxite)	..	..	..	..	..	..	3	131
6 Petroleum and natural gas	..	..	..	..	..	..	..	..
7 Precious metals	..	..	..	..	..	..	..	..
8 Other non-metals	4	..	1	..	..	..	2	609

The total number of manufacturing units in the State was 4,084 factories employing 360,559 persons. Among the various manufacturing concerns, textiles and their products account for the largest number of factories (875) and workers (201,874) employed, followed closely by food and kindred products, which claim 838 factories and 28,780 workers. Though textile industry is the

XII.32-*contd.*

the districts of the State as in 1961

Sector	Panchmahals		Baroda		Broach		Surat		Dangs	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
1	28	29	30	31	32	33	34	35	36	37
MANUFACTURING										
1 All manufacturing	**64**	**5,175**	**287**	**32,437**	**77**	**9,474**	**920**	**40,064**	**1**	**32**
2 Food & kindred products	32	906	47	1,348	4	107	60	1,576	..	..
3 Textiles & their products	..	..	9	9,165	9	2,082	565	23,729	..	..
4 Leather & leather products	..	..	1	38	4	59	2	42	..	..
5 Rubber products	..	..	3	470	..	..	1	33	..	..
6 Forest products	..	..	4	66	..	..	38	1,366	1	32
7 Paper, pulp and products	..	..	..	..	..	..	3	622	..	..
8 Printing, publishing & allied industries	1	7	25	1,019	..	..	13	282	..	..
9 Chemical & allied products	2	118	17	4,306	1	146	11	1,575	..	..
10 Petroleum refining	..	..	2	19	..	..	5	128	..	..
11 Metals & metal products										
(a) Iron and steel	1	(Factory closed)	19	1,165	..	..	18	478	..	..
(b) Non-ferrous metals	..	..	..	..	..	..	52	929	..	..
(c) Machinery excluding transportation equipment	..	..	27	2,840	..	..	44	1,278	..	..
(d) Transport equipment	4	2,828	10	1,447	3	50	15	458	..	..
12 Miscellaneous industries not classified above	24	1,316	123	10,554	56	7,030	93	7,568	..	..
MINING										
1 All mining	**5**	**1,266**	**5**	**684**	**4**	**137**	**1**	..	..	..
2 Coal	..	..	..	..	..	..	..	..	..	..
3 Iron	..	..	..	..	..	..	..	..	..	..
4 Ferrous metals (manganese)	2	1,225	1	342	..	..	..	..	..	..
5 Non-ferrous metals (bauxite)	..	..	..	..	..	..	..	..	..	..
6 Petroleum and natural gas	..	..	..	..	..	..	..	..	..	..
7 Precious metals	..	..	..	..	4	137	..	..	..	..
8 Other non-metals	3	41	4	342	..	..	1	..	..	..

most important industry in the State and claims a major share of employment, there is some diversification of industries which include chemicals, pharmaceuticals, dye-stuffs, engineering as represented by manufacture of spares and transport equipment. Among others, leather, rubber, forest and paper products account for quite a sizeable number followed by a large number of

miscellaneous industries not elsewhere classified which account for 1,073 factories employing 71,110 workers. Industrial development is spread over a number of districts, but there are some like Amreli, Kutch, Banaskantha, Sabarkantha, the Panchmahals and the Dangs, where the level of industrialisation is comparatively low. Ahmedabad, however, stands at the top leading not only in textile industry where the first mill was started a century ago, but also in having a number of other ancillary industries like engineering, manufacture of bobins, shuttles and other textile accessories and consumer goods which are expanding at an appreciable rate during the past decennium. The Ahmedabad-Baroda axis which is extending towards Anklesvar region of the Broach district with the commercial exploitation of mineral oil and the starting of the refinery and fertilizer projects close to Baroda has a high potential of industrial development in the near future.

81. The figures given in the statement relating to distribution of organised industries show (i) development of textile industries specially cotton, including ginning and pressing, (ii) agro-based industries like food and kindred products, oil industry including hydrogenated oil (Vanaspati), (iii) some metal-based industries and (iv) chemicals and non-metallic mineral products.

82. The industrial development that has so far taken place was lopsided in favour of textile industry including art silk with some diversification in other branches. Conscious of the fact that the development potential which the State possesses is yet to be exploited to the fullest extent possible, the State Government has been making intensive efforts to stimulate establishment of new industries. Consumer goods and light engineering works which are some of the ancillary industries are coming up at Ahmedabad, Baroda, Jamnagar, Rajkot and Bhavnagar. Chemical industries have made a notable start in the State. The manufacture of soda ash is a very important industry established at Mithapur and Dhrangadhra with possibilities of further expansion because of the greater availability of salt manufactured in coastal areas of Saurashtra. The pattern of development of Baroda is diversified, as in addition to textiles, pharmaceuticals, chemicals, glass and engineering have been making good progress during the past decade. Peninsular Gujarat also has textile manufacture, small engineering, ceramics, oil crushing, cement and soda ash. In the field of dye-stuffs and pharmaceuticals, Atul at Bulsar has made a name for itself in the country.

83. While the existing industries are being expanded, a number of new industries are being developed at various places. Though Gujarat has so far fared well in the field of industrial development in comparison with many other States, the progress made cannot be regarded to be satisfactory in the context of high potential it possesses for the development of its latent resources. The main handicap which this infant State has been experiencing in setting pace in the development of industries is the lack of adequate motive power so very essential for mechanisation and modernisation. For, Gujarat so far has no hydroelectric project and the only source of its thermal power is high cost coal which has to be moved from long distance. The efforts the State Government has been making in meeting this deficiency will bear fruit in the near future, as the Dhuvaran Thermal Station has now gone into commission. Added to this is the prospect of exploitation on commercial basis of natural gas in the gas fields at Broach and Cambay. The recent find of lignite in the Rann of Kutch is likely to ease the situation still further. The establishment of the Refinery at Koyali and Fertilizer Plant in its vicinity will be a distinct step forward in the direction of greater industrialisation, which holds high hopes for the development of petro-chemical complex in the State. To sum up, Gujarat can legitimately expect to expand industrially in a number of directions by exploiting its innate resources, agricultural and non-agricultural, by developing new industries in the field of light engineering, consumer goods, chemicals, petroleum, fertilizers and plastics besides expanding existing industries like ceramics, glass, pharmaceuticals, cement, etc.

Capital Structure of the Joint Stock Companies during the Second Plan

84. The available data for the Second Plan period regarding the number of joint stock companies registered and the amount of paid-up capital invested given in the table that follows illustrate the pattern of growth of such concerns and increase in the amount of their paid-up capital during the course of last five years.

STATEMENT XII.33

Joint stock companies, 1956 and 1961

Categories	Number of companies					Paid-up capital (Rs. in crores)				
	1956	Percentage to total No. of companies	1961	Percentage to total No. of companies	Percentage increase over 1956	1956	Percentage to total paid-up capital	1961	Percentage to total paid-up capital	Percentage increase over 1956
1	2	3	4	5	6	7	8	9	10	11
Total . . .	**735**	**100.00**	**918**	**100.00**	**24.90**	**42.41**	**100.00**	**47.22**	**100.00**	**11.34**
Agriculture and allied activities .	6	0.82	6	0.65	0	0.15	0.35	0.15	0.32	0
Mining and quarrying . .	17	2.31	18	1.96	5.88	0.44	1.04	0.44	0.93	0
Processing and manufacture of food-stuff, textiles, etc. . .	210	28.57	235	25.60	11.90	25.93	61.14	27.28	57.77	5.21
Processing and manufacture of metals, chemicals, etc. . .	106	14.42	167	18.19	57.55	3.05	7.19	3.83	8.11	25.57
Processing and manufacture not elsewhere classified . .	48	6.53	82	8.93	70.83	2.70	6.37	4.99	10.57	84.81
Construction and utilities . .	24	3.27	31	3.38	29.17	1.35	3.18	1.44	3.05	6.67
Commerce (trade and finance) .	270	36.73	315	34.31	16.67	7.31	17.24	7.51	15.90	2.87
Transport, comunication and storage	31	4.22	31	3.38	0	1.28	3.02	1.28	2.71	0
Community and business services .	10	1.36	15	1.64	50.00	0.03	0.07	0.04	0.09	31.33
Personal and other services .	13	1.77	18	1.96	38.46	0.17	0.40	0.26	0.55	52.94

Source:

Handbook of Basic Statistics, Gujarat State, 1961

85. Every year of the Second Plan period has seen a steady growth in joint stock companies which have increased from 735 in 1956 to 918 in 1961, an increase of 24.90 per cent during five years or about 5 per cent per annum. The share of joint stock concerns in the Indian Union which was 2.5 per cent in 1956 rose to 3.5 per cent in 1961. The total paid-up capital for the corresponding period rose from Rs. 42.41 crores to Rs. 47.22 crores, that is to say by 11.34 per cent. The paid-up capital per company and *per capita* which was Rs. 5.77 lakhs and Rs. 26 respectively in 1956 stood at Rs. 7.83 lakhs and Rs. 33 respectively in 1962.

86. Between 1956 and 1961 the highest percentage increase in the number of companies is noticed against "processing and manufacturing not elsewhere classified" (70.83) followed by processing and manufacture of metals, chemicals, etc., (57.55) and "Community and business services" (50.00). Percentage increase in paid-up capital during the corresponding period is as high as 84.81 per cent in "processing and manufacturing not elsewhere classified" and 52.94 per cent in "personal and other services". Of the total number of companies in 1956, 65.30 per cent belonged to two categories of "processing and manufacturing of food-stuffs, textiles, etc.," and "commerce (trade and finance)" as against 59.91 per cent in 1961. Their combined share in the total amount of paid-up capital is likewise found to be 78.38 per cent in 1956 and 73.67 per cent in 1961. These figures bring out the important position, capital investment holds in agro-based and textile industries as well as in the commercial and trading activities of the State. The reduction in the proportions, noticed above discloses the gradual diversification of the industrial landscape of Gujarat by the establishment and expansion of metal and chemical industries along with processing and manufacture not elsewhere classified. Personal and other services as well as community and business services are also claiming their due share in the development of the State economy which is passing from agricultural to industrial.

87. Statement XII.34 on the next page compares district-wise figures about number of companies and paid-up capital for the years 1956 and 1961.

STATEMENT XII.34

Distribution of joint stock companies by district, 1956 and 1961

State/District	1956				1961				Percentage increase(+) or decrease (—) over 1956	
	No. of companies	Per cent	Paid-up capital (Rs. in crores)	Per cent	No. of companies	Per cent	Paid-up capital (Rs. in crores)	Per cent	No. of companies	Paid-up capital
1	2	3	4	5	6	7	8	9	10	11
GUJARAT	**735**	**100.00**	**42.41**	**100.00**	**918**	**100.00**	**47.22**	**100.00**	**+ 24.90**	**+ 11.34**
1 Jamnagar	37	5.03	4.18	9.86	38	4.14	4.19	8.87	+ 2.70	+ 0.24
2 Rajkot	51	6.94	0.79	1.86	56	6.10	0.89	1.88	+ 9.80	+ 12.66
3 Surendranagar	44	5.99	2.75	6.49	47	5.12	2.76	5.84	+ 6.82	+ 0.36
4 Bhavnagar	67	9.12	4.08	9.62	76	8.28	4.11	8.70	+ 13.43	+ 0.74
5 Amreli	2	0.27	0.06	0.14	2	0.22	0.06	0.13	0	0
6 Junagadh	28	3.81	1.92	4.53	32	3.49	3.42	7.24	+ 14.29	+ 78.13
7 Kutch	..	..	..	..	1	0.11	0.06	0.13	+100.00	+100.00
8 Banaskantha	4	0.54	0.14	0.33	4	0.43	0.13	0.30	0	0
9 Sabarkantha	2	0.27	0.01	0.02	2	0.22	0.01	0.02	0	0
10 Mehsana	35	4.76	1.83	4.32	41	4.47	1.91	4.02	+ 17.14	+ 3.83
11 Ahmedabad	277	37.69	18.74	44.19	368	40.09	20.12	42.61	+ 32.85	+ 7.36
12 Kaira	28	3.81	1.32	3.11	35	3.81	1.32	2.80	+ 25.00	0
13 Panchmahals	5	0.68	0.14	0.33	6	0.65	0.14	0.30	+ 20.00	+ 0
14 Baroda	80	10.89	4.70	11.08	108	11.76	4.85	10.27	+ 35.00	+ 3.19
15 Broach	7	0.95	0.29	0.68	9	0.98	0.49	1.04	+ 28.57	+ 68.97
16 Surat	68	9.25	1.46	3.44	93	10.13	2.76	5.85	+ 36.76	+ 89.04
17 Dangs	..	..	..	..	..	..	..	..	..	..

Source:
Handbook of Basic Statistics, Gujarat State, 1961

District-wise distribution of the amount of paid-up capital reveals that three-fourth of the total paid-up capital in 1956 was appropriated by only four districts of Ahmedabad, Baroda, Jamnagar and Bhavnagar, as against 70.45 per cent in 1961.

88. Of the 918 companies in the State in 1961, 368 or 40.09 per cent were in Ahmedabad, 108 or 11.76 per cent in Baroda, 93 or 10.13 per cent in Surat, 76 or 8.28 per cent in Bhavnagar and 56 or 6.10 per cent in Rajkot district. Of the total amount of paid-up capital of Rs. 47.22 crores in 1961, Ahmedabad district tops the list with 42.61 per cent followed by the districts of Baroda (10.27 per cent), Jamnagar (8.87 per cent) and Bhavnagar (8.70 per cent). The overall increase in paid-up capital for the State in 1961 as compared to 1956 is 11.34 per cent. Four districts which have shown a marked percentage increase in the amount of paid-up capital in 1961 over the position prevailing in 1956 are Kutch (100.00), Surat (89.04), Junagadh (78.13) and Broach (68.97).

89. The distribution of joint stock companies and paid-up capital into public and private sectors discloses that out of 72 companies registered in 1960-61, 13 with an authorised capital of Rs. 15.01 crores were public companies and 59 with an authorised capital of Rs. 9.44 crores were private companies. The number of companies registered in the private sector is greater than that in the public sector, though the amount of authorised capital is greater in the latter than in the former. In the public sector mention must be made of the recent discovery of extensive and rich oil and gas-bearing areas which have led the Oil and Natural Gas Commission to spend so far about Rs. 60 crores for the exploration of oil and gas in the various parts of Gujarat. As already noticed earlier, the Koyali Refinery Project which is expected to go into commission during August 1965, is being expanded to raise its original capacity of 2 million tons to 3 million. A fertilizer unit in the joint sector with an investment of Rs. 32.00 crores is being set up

near the oil refinery. With the coming into existence of petro-chemical complex with an investment of Rs. 105 crores in the first phase and over Rs. 200 crores in the final phase, considerable scope will be provided for investment in the public as well as private sector for the promotion of a number of feeder and ancillary industries in the State. The setting up of corporations like the Gujarat Industrial Development Corporation, the Gujarat Mineral Development Corporation and the Gujarat State Financial Corporation will also give great fillip to the growth and development of industries in Gujarat.

Small-Scale Industries

90. Schemes relating to the development of small-scale units registered under the Factory Act are being implemented by the Director of Industries and those for unregistered small units by the Registrar of Cooperative Societies. The growth of new industries registered under the Factories Act is evident from the number of such units being 3,300 on 31st December, 1963 against 2,824 on 1st May, 1960. There are some sources, however, which go to show that small-scale industries have received great impetus after Independence. The progress started during the World War the Second has been appreciably accelerated in the past decade as a result of various incentives and facilities for their establishment and development offered by the State and the Central Government. The organisation of the Small-Scale Industries Board, opening up of industrial estates and Small Industries Service Institute with branches at some of the important centres in the State have had beneficial effects on stimulating progress in this sector.

91. While it has not been so far possible to demarcate the exact role of cottage industry on the one hand and small-scale industries on the other, distinction between the role of medium and large-scale industries is equally vague and indistinct, whereas cottage industries for the most part consist of the numerous traditional crafts and handicrafts, small-scale industries represent transformation of many such industries on modern lines with modern techniques of production. They also include a number of new industries started in the small sector to cater to the needs of the consumers as well as to the needs of large concerns, whose parts and spares they have started producing. Difficulties experienced by the small-scale industries relate to (i) the procurement of adequate quantities of raw materials, machinery and equipment and (ii) acquisition of land. The Department of Industries is given quotas of all important raw materials like ferrous and non-ferrous metals which are generally allotted to the old units. New units could not be accommodated as the quotas formerly allotted were not revised to meet their demands. Their difficulties were accentuated further as the stringency of foreign exchange many a time rendered even the National Small Industries Corporation helpless in giving important plant machinary on hire-purchase basis to small-scale industries.

92. Gujarat Industrial Development Corporation has been formed to develop industrial areas and satellite townships and help in mitigating the hardships experienced in the acquisition of lands which were hitherto given for non-agricultural use to public limited companies only. In the matter of financial assistance, Government has liberalised its policy of advancing loans under the State Aid to Industries Rules, 1935. The small-scale sector has further received a fillip from the Government of India through the procedure of approval of production programme. Twenty-seven ancillary industries envisaging manufacture of component parts and ancillary products have been registered so far. Moreover, a scheme of quality marking of products will be undertaken by the Directorate of Industries which will facilitate marketing of products under Government seal. Units which have availed of this benefit number 557. Government will allow a subsidy equal to the difference between the actual rate paid and 9 paise per unit, subject to a maximum of 6 paise per unit on the consumption of first 2,000 units of power. An amount of Rs. 8.90 lakhs has been granted as subsidy against consumption of electrical energy by small-scale and cottage industries between 1960-61 and 1963-64. A separate cell has been created in the Directorate of Industries for guiding units in the preparation of sales literature, price lists, finding out foreign buyers, procurement of import entitlements, allocation of raw material and in securing insurance from Export Credit

and Guarantee Corporation. Export Aid to Small Industries Scheme is worked under the auspices of State Trading Corporation for the promotion of export trade by giving them technical guidance.

Small Industries

93. Since complete data regarding the distribution of small-scale industries in the State are not available, the results of certain surveys carried out in Gujarat (i) by the State Bureau of Economics and Statistics as well as (ii) by the Small Industries Service Institute at the instance of the Development Commissioner of India are summarised below, as they will be helpful in having some idea of the stage of development of this sector of industry.

State Survey

94. This survey was undertaken by the Bureau of Economics and Statistics in all the districts of Gujarat except the Dangs and was spread over 2 years, 1959-60 and 1960-61. It aims at (i) obtaining district-wise estimates of income of families engaged in selected cottage and small-scale industries and (ii) collecting information on other related aspects such as employment, production and consumption of raw materials. The results of this survey have been published in the Quarterly Bulletin of Economics and Statistics, Vol. II, No. I, January–March 1962.

95. Distinguishing a cottage industry from a small-scale establishment, the survey clarifies that,

> "An establishment is classified as a cottage industry if the number of persons engaged in it on any day during the year is 9 or less. If the number is 10 or more, and not registered under the Factories Act, the establishment is classified as a small-scale establishment whether it is power operated or not. Ordinarily industrial units employing 10 or more workers and using power would be registered under the Factories Act. However, if at the time of the inquiry such a unit was found not registered, it was included in the survey."[1]

96. The survey carried out is a sample survey covering the following sixteen industries in the cottage and small-scale sectors:

(1) Weaving,
(2) Dyeing and Printing,
(3) *Jari* thread works,
(4) Blacksmithy,
(5) Metal-works (silver, brass, copper and bell)
(6) Carpentry,
(7) Cane and bamboo products,
(8) Bricks and tiles,
(9) Other potteries,
(10) Leather working and tanning,
(11) Oil pressing,
(12) *Gur* making,
(13) Bee-keeping,
(14) Soap making,
(15) Match making and
(16) Paddy husking

97. For the purpose of survey the centres were classified into strata A, B and C. Stratum A related to centres important for different industries; stratum B to urban areas other than those covered by A; and stratum C consisted of groups of 4 to 5 villages in the rest of the rural areas, from which about 4 per cent of the group villages were selected for the purpose of survey. The survey thus extends to 262 centres in stratum A, 90 in stratum B and 76 groups of villages in stratum C. In view, however, of certain obvious limitations as regards (a) the period of the survey spread over two years 1959-60 and 1960-61, (b) selection of the sample in the absence of readily available list of establishments for small-scale and cottage industries and (c) the lesser reliability of figures at district level, it has been suggested that the overall results for the State as a whole would be more reliable than that for any individual district.

Distribution of Establishments

98. Out of a total of 139,736 establishments, 136,658 are in the cottage industry sector and 3,078 in the small-scale sector. In the 16 selected industries of 16 districts, (1) carpentry and (2) leather working and tanning industries account for the largest number of establishments which are found to be 23,268 and 26,389 respectively. All these establishments work as cottage industries. Others in order of importance are (1) weaving, (2) other potteries, (3) bricks and tiles, (4) blacksmithy and (5) metals. Even

1. *Quarterly Bulletin of Economics and Statistics*, Vol. II, No. 1, January–March 1962, p. 1

STATEMENT XII.35

The number of establishments and persons employed in cottage and small industries selected for survey

Sl. No.	Industry	Industry Code No.	Number of establishments			Number of persons employed						Total number of persons employed		
						Household			Outsiders					
			Power	Non-power	Total	Power	Non-power	Total	Power	Non-power	Total	Power	Non-power	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						COTTAGE INDUSTRY								
1	Weaving	01	1,122	16,185	17,307	2,667	43,794	46,461	3,534	1,168	4,702	6,201	44,962	51,163
2	Dyeing and printing	02	4	1,630	1,634	6	2,981	2,987	19	974	993	25	3,955	3,980
3	Jari thread works	03	862	..	862	1,887	..	1,887	1,882	..	1,882	3,769	..	3,769
4	Blacksmithy	04	727	9,085	9,812	1,247	14,798	16,045	1,942	1,897	3,839	3,189	16,695	19,884
5	Metal-works	05	307	11,028	11,335	535	17,954	18,489	797	1,743	2,540	1,332	19,697	21,029
6	Carpentry	06	338	22,896	23,234	599	33,355	33,954	579	1,548	2,127	1,178	34,903	36,081
7	Cane and bamboo products	07	1	5,388	5,389	2	12,853	12,855	5	81	86	7	12,934	12,941
8	Bricks and tiles	08	..	11,497	11,497	..	33,115	33,115	..	7,326	7,326	..	40,441	40,441
9	Other potteries	09	..	18,555	18,555	..	52,118	52,118	..	33	33	..	52,151	52,151
10	Leather working and tanning	10	..	26,380	26,380	..	53,952	53,952	..	1,533	1,533	..	55,485	55,485
11	Oil pressing	11	713	4,277	4,990	1,230	7,909	9,139	1,600	263	1,863	2,830	8,172	11,002
12	Gur making	12	1,121	2,075	3,196	2,997	7,196	10,193	6,240	6,971	13,211	9,237	14,167	23,404
13	Bee-keeping	13	..	1	1	..	1	1	..	1	1	..	2	2
14	Soap making	14	4	303	307	4	528	532	27	771	798	31	1,299	1,330
15	Match making	15	..	1	1	..	..	..	..	3	3	..	3	3
16	Paddy husking	16	1,805	353	2,158	2,507	578	3,085	1,623	98	1,721	4,130	676	4,806
	Total		**7,004**	**129,654**	**136,658**	**13,681**	**281,132**	**294,813**	**18,248**	**24,410**	**42,658**	**31,929**	**305,542**	**337,471**
						SMALL-SCALE INDUSTRY								
1	Weaving	01	197	46	243	545	188	733	2,104	622	2,726	2,649	810	3,459
2	Dyeing and printing	02	82	43	125	404	133	537	486	555	1,041	890	688	1,578
3	Jari thread works	03	116	..	116	556	..	556	741	..	741	1,297	..	1,297
4	Blacksmithy	04	64	8	72	154	21	175	606	91	697	760	112	872
5	Metal-works	05	109	21	130	239	86	325	1,559	179	1,738	1,798	265	2,063
6	Carpentry	06	14	20	34	32	49	81	159	220	379	191	269	460
7	Cane and bamboo products	07	..	1	1	..	2	2	..	12	12	..	14	14
8	Bricks and tiles	08	3	118	121	..	287	287	71	1,290	1,361	71	1,577	1,648
9	Other potteries	09	..	1	1	..	10	10	..	..	..	..	10	10
10	Leather working and tanning	10	..	9	9	..	21	21	..	99	99	..	120	120
11	Oil pressing	11	25	4	29	59	10	69	268	33	301	327	43	370
12	Gur making	12	83	2,064	2,147	403	7,857	8,260	1,563	25,651	27,214	1,966	33,508	35,474
13	Soap making	14	5	40	45	11	95	106	35	380	415	46	475	521
14	Paddy husking	16	1	4	5	8	3	11	5	129	134	13	132	145
	Total		**699**	**2,379**	**3,078**	**2,411**	**8,762**	**11,173**	**7,597**	**29,261**	**36,858**	**10,008**	**38,023**	**48,031**

Source :

Quarterly Bulletin of Bureau of Economics and Statistics, Vol. II, No. 1, January–March, 1962, p. 68

among these industries, those that go to make up the small-scale sector are very few—243 in weaving, 130 in metals, 121 in bricks and tiles and 72 in blacksmithy. The Statement XII.35 on page 51 reproduces for the State as a whole the number of establishments and number of persons employed in cottage and small-scale industries selected for survey.

99. The relative proportions of cottage and small-scale establishments in each of the 16 selected industries are given in the table that follows.

STATEMENT XII.36

Percentage distribution of cottage and small-scale establishments

Sl. No.	Industry	Per cent of cottage establishments	Per cent of small-scale establishments
1	2	3	4
1	Weaving . . .	98.62	1.38
2	Dyeing and printing .	92.89	7.11
3	Jari thread works . .	88.14	11.86
4	Blacksmithy . . .	99.27	0.73
5	Metal-works (silver, brass, copper and bell metals) .	98.87	1.13
6	Carpentry . . .	99.85	0.15
7	Cane and bamboo products .	99.98	0.02
8	Bricks and tiles . .	98.96	1.04
9	Other potteries . .	99.99	0.01
10	Leather working and tanning	99.96	0.04
11	Oil pressing . . .	99.40	0.60
12	Gur making . . .	59.81	40.19
13	Bee-keeping . . .	100.00	0.00
14	Soap making . .	87.25	12.75
15	Match making . .	100.00	0.00
16	Paddy husking . .	99.77	0.23

Source :

Quarterly Bulletin of Bureau of Economics and Statistics, Vol. II, No. 1, January-March, 1962, p.3

Of all the units that go to make up the small-scale sector, *gur* making accounts for 40 per cent, soap making 13, *jari* thread works 12, and dyeing and printing 7 per cent of the establishments in each of these industries. Whereas weaving and metal-works each has a little over 1 per cent, the rest of the industries have negligible proportions in the small-scale sector.

Power vs. *No Power*

100. Small-scale establishments employ on an average 14.4 persons per establishment in power operated units, of whom 3.5 persons work on household basis and 10.9 are outsiders. Small-scale industries where power is not used, show an average employment of 16 persons per establishment, of whom 3.7 are members of the household and 12.3 are outsiders.

Employment

101. The Statement XII.37 on next page shows total employment in the small-scale sector as well as in the cottage industries sector and correlates it with the total population of the district as returned at the Census of 1961.

The total employment in both the sectors comes to 385,502 of whom 337,471 or 87.54 per cent work in the cottage industries sector and 48,031 or 12.46 per cent in small-scale sector. Ranking of the districts in the order of total employment shows Junagadh at the top with Broach at the bottom. But when the figures of total employment are correlated to the population strength in the district, it is the district of Amreli which has the largest proportionate employment (46) in the 16 industries surveyed as against Baroda (6) which has the least. The average for all the 16 industries and 16 districts combined, however, comes to 19 per 1,000 population. The ranking of the districts in the order of importance under each industry given in the Appendix, which is reproduced as Statement XII.38 on page 54 will be found interesting.

Small Industries Service Institute Survey

102. The results of the survey carried out by this institute in 1961 are available for two districts, namely, Sabarkantha and Banaskantha. Some of the salient results emerging from these surveys are noted here in brief to indicate the present position, future prospects and direction of development of this important sector.

103. Both these districts are industrially backward on account of insufficiency of road and rail communications, inadequacy of power supply, low level of literacy and complacency of the former Princely administration which gave scant

STATEMENT XII.37

Employment in cottage and small-scale industries

District	Total employment			Population (1961)	Employment per 1,000 persons (col. 4÷col. 5 X 1,000)
	Cottage industry sector	Small-scale industry sector	Total		
1	2	3	4	5	6
1 Kutch	10,486	..	10,486	686,706 (696,440)	15
2 Jamnagar	21,476	4,027	25,503	824,725 (828,419)	31
3 Rajkot	23,352	1,439	24,791	1,209,004 (1,208,519)	21
4 Surendranagar	26,547	67	26,614	662,308 (663,206)	40
5 Bhavnagar	31,236	2,623	33,859	1,116,206 (1,119,435)	30
6 Junagadh	15,367	27,816	43,183	1,244,086 (1,245,643)	35
7 Amreli	27,604	3,100	30,704	667,387 (667,823)	46
8 Banaskantha	26,326	..	26,326	995,980 (996,144)	26
9 Sabarkantha	19,044	153	19,197	917,809 (918,587)	21
10 Mehsana	34,593	327	34,920	1,685,090 (1,689,963)	21
11 Ahmedabad	23,110	1,748	24,858	2,231,534 (2,210,199)	11
12 Kaira	16,508	664	17,172	1,974,351 (1,977,540)	9
13 Panchmahals	14,278	75	14,353	1,467,485 (1,468,946)	10
14 Baroda	9,227	136	9,363	1,527,044 (1,527,326)	6
15 Broach	6,320	447	6,767	892,241 (891,969)	8
16 Surat	31,997	5,409	37,406	2,438,740 (2,451,624)	15
Total	**337,471**	**48,031**	**385,502**	**20,540,696 (20,561,783)**	**19**

NOTE : The figures of population given in brackets under col. 5 are final, while those given above them are provisional.

Source : *Quarterly Bulletin of Bureau of Economics and Statistics*, Vol. II, No. 1, January-March 1962, p. 5

STATEMENT XII.38

Districts arranged according to importance in terms of employment in small-scale and cottage industries

Sl. No.	Weaving (01)	Dyeing and printing (02)	Jari thread works (03)	Blacksmithy (04)	Metal-works (05)	Carpentry (06)	Cane and bamboo products (07)
1	2	3	4	5	6	7	8
1	Surat	Jamnagar	Surat	Bhavnagar	Jamnagar	Mehsana	Surat
2	Surendranagar	Ahmedabad	Broach*	Rajkot	Ahmedabad	Bhavnagar	Panchmahals
3	Rajkot	Surat	Baroda*	Ahmedabad	Rajkot	Rajkot	Sabarkantha
4	Mehsana	Rajkot	Kaira*	Sabarkantha	Surat	Banaskantha	Kaira
5	Bhavnagar	Bhavnagar	Panchmahals*	Surendranagar	Bhavnagar	Jamnagar	Broach
6	Ahmedabad	Kutch	Ahmedabad*	Mehsana	Banaskantha	Ahmedabad	Junagadh
7	Banaskantha	Mehsana	Mehsana*	Junagadh	Junagadh	Junagadh	Bhavnagar
8	Kaira	Banaskantha	Banaskantha*	Kutch	Surendranagar	Sabarkantha	Rajkot
9	Jamnagar	Amreli	Sabarkantha*	Kaira	Mehsana	Surat	Mehsana
10	Sabarkantha	Junagadh	Surendranagar*	Amreli	Kaira	Amreli	Amreli
11	Kutch	Kaira	Rajkot*	Baroda	Amreli	Kaira	Banaskantha
12	Amreli	Baroda	Bhavnagar*	Surat	Kutch	Surendranagar	Ahmedabad
13	Baroda	Sabarkantha	Junagadh*	Broach	Broach	Kutch	Baroda
14	Broach	Surendranagar	Jamnagar*	Jamnagar	Sabarkantha	Baroda	Jamnagar
15	Junagadh	Broach	Amreli*	Panchmahals	Panchmahals	Panchmahals	Surendranagar
16	Panchmahals	Panchmahals*	Kutch*	Banaskantha	Baroda	Broach	Kutch

Sl. No.	Bricks and tiles (08)	Other potteries (09)	Leather working and tanning (10)	Oil pressing (11)	Gur making (12)	Soap making (14)	Paddy husking (16)
1	9	10	11	12	13	14	15
1	Mehsana	Ahmedabad	Mehsana	Bhavnagar	Junagadh	Rajkot	Jamnagar
2	Surendranagar	Mehsana	Banaskantha	Banaskantha	Amreli	Ahmedabad	Kaira
3	Bhavnagar	Surendranagar	Sabarkantha	Mehsana	Jamnagar	Kaira	Panchmahals
4	Banaskantha	Bhavnagar	Bhavnagar	Amreli	Bhavnagar	Bhavnagar	Rajkot
5	Panchmahals	Jamnagar	Amreli	Kaira	Banaskantha	Jamnagar	Surat
6	Jamnagar	Kaira	Kutch	Baroda	Rajkot	Broach	Junagadh
7	Amreli	Sabarkantha	Panchmahals	Rajkot	Surat	Junagadh	Bhavnagar
8	Rajkot	Panchmahals	Surendranagar	Jamnagar	Panchmahals	Baroda	Ahmedabad
9	Junagadh	Baroda	Ahmedabad	Broach	Broach*	Surat	Baroda
10	Surat	Banaskantha	Rajkot	Sabarkantha	Baroda*	Mehsana	Amreli
11	Kaira	Surat	Junagadh	Junagadh	Kaira*	Sabarkantha	Mehsana
12	Ahmedabad	Rajkot	Kaira	Ahmedabad	Ahmedabad*	Surendranagar	Broach
13	Sabarkantha	Junagadh	Surat	Surat	Mehsana	Panchmahals	Surendranagar
14	Broach	Kutch	Jamnagar	Surendranagar	Sabarkantha*	Amreli	Sabarkantha
15	Kutch	Amreli	Broach	Panchmahals	Surendranagar*	Kutch	Banaskantha*
16	Baroda	Broach	Baroda	Kutch	Kutch*	Banaskantha	Kutch*

NOTE :

1. The districts marked with (*) have not a single worker in the industries mentioned in the column headings.
2. Bee-keeping and match making industries have very meagre number of workers (i.e., only 2 and 3) and hence they are not considered in the above table.

Source :

Quarterly Bulletin of Economics and Statistics, Vol. II. No. 1, January-March 1962, pp. 73-74

encouragement to local entrepreneurs. Both the districts are endowed with certain latent resources which are comparatively greater in Sabarkantha than in Banaskantha. Mineral resources are particularly noteworthy in Sabarkantha which has limestone, china-clay, pipeclay, asbestos, silica sand and soap-stone, which have great potentiality of future development. Rich in live-stock, the district has every possibility of setting up tanning and leather industries. Its cash crops like cotton and groundnut have helped establishment of cotton gins, presses and oil mills as important large-scale industries, besides stone crushing and production of R.C.C. pipes. The industrial climate in the district is undergoing rapid change as a result of the construction of the railway line from Himatnagar to Udaipur, roads and power-stations. Its nearness to Ahmedabad is an additional factor in favour of its industrial growth. Good scope exists for the starting of small-scale engineering establishments manufacturing gin parts, agricultural implements, metric weights, builders' hardware, nuts, bolts, and rivets, steel furniture, diesel engine parts, pumping sets and tin containers. Manufacture of pottery, cement tiles and fertilizer mixtures and setting up of an ice factory are other possibilities. Long term development will include mineral-based industries like china-clay refinery, asbestos and cement.

104. The resources which the district of Banaskantha can exploit are (i) agricultural, (ii) horticultural, (iii) forest and (iv) minerals, among which marble and limestone are the most important and offer very good scope both for expansion and establishment of new concerns. Limestone is particularly suitable for the manufacture of cement and use in chemical industries. New industries which have possibilities of development are suggested to be:

1 Marble stone cutting and polishing,
2 Flaying centres and model tannery,
3 Bone Meal,
4 Mixed fertilizers,
5 Milk chilling centres,
6 Cold storage plant for the preservation of potatoes,
7 Cotton ginning and pressing,
8 Extraction of citrus fruit juice and
9 Manufacture of salt from saline water available in Vav taluka.

105. The survey discloses general ignorance on the part of the small investors of the various facilities offered by the State Government and other institutions functioning in the State for the promotion of small-scale industries. While pointing out the need for wide publicity, it emphasises the necessity of imparting technical know-how, adequate supply of electric power, prompt and timely supply of controlled raw material like iron and steel, baling hoops, coal and cement by adopting a liberal attitude in the allocation of quotas and licences in backward districts, as an incentive and encouragement for the expansion of existing units and establishment of new ones. Establishment of industrial estates at Palanpur, Himatnagar and Talod and a Polytechnic at Himatnagar with diploma courses of short duration in electrical, mechanical and wood working and other technical training facilities are also recommended to provide the technical know-how to workers in small-scale industries.

Industrial Estates

106. A systematic development of small industries has been planned by the starting of industrial estates at a number of places in the State. Six such estates are at present in operation at Ahmedabad, Baroda, Udhna, Rajkot, Bhavnagar and Gandhidham. The estates at Rajkot, Bhavnagar and Gandhidham were developed on Government account while the estates at Ahmedabad, Baroda and Udhna were developed through the Municipal Corporation, by a private joint stock company and through a cooperative society respectively. Statement XII.39 on the next page gives the number of industrial estates, sheds, area, etc., established in Gujarat between 1956 and 1961 on Government account as similar data for non-Government estates are not available.

107. The total expenditure incurred on Government estates has been Rs. 29.77 lakhs. The Third Plan provides for the location of industrial estates in all the remaining districts except the forest areas of the Dangs. These are being located at Mehsana, Godhra, Amreli, Junagadh, Sanjan, Himatnagar, Thasra, Palanpur, Rajpipla, Khambhalia and Limbdi and are at

STATEMENT XII.39

Establishment of industrial estates

(Rs. in lakhs)

Town	1956–57		1957–58		1958-59		1959-60	
	Expenditure	No. of units	Expenditure	No. of units	Expenditure	No. of units	Expenditure	No. of units
1	2	3	4	5	6	7	8	9
Rajkot	9.49	57	4.48	16	2.64	16	0.53	..
Gandhidham	..	..	..	..	0.93	..	3.18	12
Bhavnagar	..	..	..	..	1.06	Land	0.01	Land
New works								
Mehsana	..	..	..	..	..	..	..	..
Godhra	..	..	..	..	..	..	..	..
Amreli	..	..	..	..	..	..	..	..
Himatnagar	..	..	..	..	..	..	..	..
Thasra	..	..	..	..	..	..	..	..
Junagadh	..	..	..	..	..	..	..	..
Sanjan	..	..	..	..	..	..	..	..
Palanpur	..	..	..	..	..	..	..	..
Rajpipla	..	..	..	..	..	..	..	..
Limbdi	..	..	..	..	..	..	..	..
Khambhalia	..	..	..	..	..	..	..	..
Kutch	..	..	..	..	..	..	..	..
Panchmahals	..	..	..	..	..	..	..	..

Town	1960–61		1956 to 1961		1965–66 (Target)			
					Expenditure		No. of units	
	Expenditure	No. of units	Total expenditure during Second Plan	Total No. of units built	Target of Third Plan	Expenditure upto 1964–65	Target	Achievement upto 1964–65
1	10	11	12	13	14	15	16	17
Rajkot	0.36	1 Canteen and office	17.50	89+1 Canteen and office	2.05	0.78	Development of plots	Wire fencing and roads completed
Gandhidham	2.70	12	6.81	24	5.18	5.18	28	28
Bhavnagar	4.39	36	5.46	36	6.30	4.40	*	*
New works								
Mehsana	..	..	..	..	5.00	4.05	12	12
Godhra	..	..	..	..	5.31	3.46	20	20
Amreli	..	..	..	..	4.78	3.10	9	9
Himatnagar	..	..	..	..	2.19	0.42	2	..
Thasra	..	..	..	..	2.08	0.34	4	4
Junagadh	..	..	..	..	2.00	..	..	..
Sanjan	..	..	..	..	2.40	..	..	..
Palanpur	..	..	..	..	1.66	..	..	..
Rajpipla	..	..	..	..	2.00	..	..	..
Limbdi	..	..	..	..	1.90	..	..	..
Khambhalia	..	..	..	..	1.80	..	..	..
Kutch	..	..	..	..	1.00	..	..	..
Panchmahals	..	..	..	..	1.00	..	..	..

*The target includes (1) Godowns and roads, (2) Water-supply, (3) Drainage, (4) Office quarters and (5) Development in the remaining portion of land, of which items (1) to (4) are completed while development of land is in progress.

Source :

Director of Industries, Gujarat State

various stages of construction. Seventeen more estates have been registered of which 16 are on cooperative and one on joint stock basis. Industrial estates have played a very important role in the promotion of small-scale industries by removing the initial difficulties in their establishment by providing developed plots or built sheds with all the facilities of roads, water-supply, drainage, power and common advantage of servicing available on spot.

Small Industries Service Institute

108. A Small Industries Service Institute has been started at Ahmedabad to provide extension service to small-scale units from February, 1961 after bifurcation, in addition to a branch of the original institute in Bombay State functioning at Rajkot since 1957. Extension centres which form the core of industrial extension service are located in areas where small units are mostly concentrated or where there is potential for the growth of small industries. These centres which have workshops attached to them are equipped with testing facilities and machinery, required for various processes which an average small-scale unit can ill-afford. Such centres at present function at Nadiad, Udhna, Bhavnagar, Savarkundla and Jamnagar. Besides offering technical guidance, the Institute has designed a furnance working on oil firing system to mitigate the shortage of hard coke and has induced the entrepreneurs engaged in the manufacture of soap to use non-edible oil by demonstrating the mixing technique. Industrial management section conducts evening classes at Jamnagar, Rajkot, Ahmedabad and other important centres giving courses in Gujarati and Hindi in subjects like personnel and financial management, costing and marketing. About 110 persons have been benefited during the year 1963-64 under this scheme and about 550 persons have been technically trained in courses like blueprint reading, heat treatment, pottery, etc. Data for small-scale industries existing and potential have also been collected by the Institute by conducting two economic surveys for the industrially backward districts of Sabarkantha and Banaskatha. Government and semi-Government organisations are availing of the services of this Institute for preparing technical reports and allied information. As a result of its efforts about 10 welfare organisations in Gujarat State will start production units to assist needy women. The Institute is also approached by the State Bank of India and other financial institutions for assessing the capacity of small-scale units. During 1963-64 the Institute prepared reports on 81 units and submitted them to the Bank.

Rural Industrialisation Pilot Projects

109. Two pilot projects for rural industrialisation have also been sanctioned one each in the Panchmahals and Kutch districts.

National Small Industries Corporation

110. The National Small Industries Corporation also renders very useful service to small industries registered with them. Such units numbered 603 in 1963-64 and received Central Government orders under its purchase programme to the tune of Rs. 18 lakhs placed with some of these units.

111. Small-scale industries have a good scope for development in Gujarat. The small industrialist has not so far been slow to take advantage of the facilities offered as indicated by the establishment of a number of such units in the State between 1951 and 1961 and the growing advantage that is being taken of the industrial estates, in some of which the demand for work-sheds has been very heavy, which it may not be possible to meet in time. Small-scale units can play a very important role in industrial development by adopting modern technique and machinery and by growing as ancillary units to large industrial plants, manufacturing parts which can be assembled or utilised by organised industries as in Japan.

(ii) MINING

112. Statement XII.32 given at the outset shows that the State had in 1961, 69 mining concerns employing 6,578 workers. While coal and iron are conspicuous by their total absence, non-ferrous metals like bauxite and ferrous metals like manganese, appropriate a comparatively substantial share of mining in the State. These activities are frankly speaking not mining activities in the proper sense of the term, but are what may be termed quarrying of stones like limestone, manganese, bauxite, china-clay, etc.

Recent investigations have been helpful in locating new sources of mineral wealth in Gujarat, e.g., petroleum, bauxite, fuller's earth, gypsum, etc. Coal and lignite are likely find in the Rann of Kutch, in addition to certain non-ferrous metals like silver and galena. There is thus every possibility for the State to embark on a career of mining, in which it has been signally deficient so far. Systematic geological surveys which the State has been planning may reveal further sources of mineral wealth and open up still greater avenues for industrial expansion in this field which has hitherto remained unexploited owing to the lack of adequate information about the existence of various mineral deposits. The gloomy picture with which the State started in 1961 is gradually changing by the unearthing of fresh mineral resources which in the past were limited only to manganese ore in the Panchmahals and Baroda districts, bauxite most of which was in Jamnagar and a little in Kaira, and other non-metals worthy of note only in Junagadh, Kaira and Baroda.

113. The overall picture of industrial development in the State shows the predominance of textile and agriculture-based industries, a large majority of which are engaged in processing of food-stuffs and oil crushing. The picture has changed not a little during the past decennium, when a number of new industries such as chemicals, pharmaceuticals, dye-stuffs, light engineering, cement, ceramics, glass, etc., have been established and expanded. This picture may not be complete without a reference to the salt industry, which holds a unique position in the State which is ideally situated for the manufacture of salt from sea-water by solar evaporation. Its total output of 2.45 million tonnes in 1963 contributed 54 per cent of the total production of salt in the country. It also supplies the basic material for important heavy chemical industries like soda ash and caustic soda which have made significant progress in Gujarat. The textile industry is mostly localised in Ahmedabad City in the factories of which 68 per cent of those employed in this industry are at work. But the largest number of units is found in Surat, where 565 units offer employment to about 24,000 workers only because of the small-scale nature of its operation in power-looms. While engineering industry is mainly concentrated in Ahmedabad, Baroda and Surat, some of the ancillary industries are coming up at Rajkot, Jamnagar and Bhavnagar also. Chemical industries, however, are of significance in Jamnagar, Surendranagar, Junagadh, Ahmedabad, Baroda and Surat districts. The districts which are less industrialised are also the less urbanised districts of Banaskantha, Sabarkantha, Kutch, Amreli, the Panchmahals and the Dangs, where primary activities relating to the cultivation of land provide the principal means of livelihood to the people.

SECTION 9

TRANSPORT AND COMMUNICATIONS

PLAN EXPENDITURE

114. The development expenditure on roads, ports and harbours for the First and Second Plans and provision for the Third Plan detailed below shows the efforts made in recent times to develop road transport utterly neglected in the past.

STATEMENT XII.40

Development expenditure in transport and communications

(Rs. in lakhs)

	First Plan expenditure	Per cent	Second Plan expenditure	Per cent	Third Plan (provision)	Per cent
1	2	3	4	5	6	7
Total . .	**1,052.42**	**100.00**	**2,285.89**	**100.00**	**2,114.84**	**100.00**
1 Roads . .	946.65	89.95	1,938.55	84.81	1,744.84	82.50
2 Ports and harbours .	105.77	10.05	347.34	15.19	370.00	17.50
3 Other transport .	..	..	..	..	..	..

The total expenditure incurred for road development has increased from Rs. 946.65 lakhs in the First Plan to Rs. 1,938.55 lakhs in the Second Plan, an increase of 104.78 per cent over the First. The revised provision under the Third Plan is Rs. 1,744.84 lakhs. The development expenditure incurred on roads during the First and Second Plans and target for the Third show that increasing attention has been paid towards road development and improvement during this period. It must, however, be noted that road system constitutes an integrated network, wherein several different agencies like the Central Government through the Central Road Fund for National Highways, the State Government, district boards, other local authorities and village communities participate.

115. For the development of ports and harbours, the expenditure incurred under the First Plan was Rs. 105.77 lakhs which has increased to Rs. 347.34 lakhs in the Second showing an increase of 228.39 per cent. The provision under the Third Plan for the development of ports and harbours is further raised to Rs. 370.00 lakhs. These figures do not include the expenditure incurred for schemes relating to the development of major port of Kandla as these are schemes executed and financed directly by the Centre. The analysis of development expenditure under roads and ports and harbours should, therefore, be read with these limitations.

ROAD TRANSPORT

116. Gujarat was highly deficient in the matter of road transport, for which a target of 24,315 miles of roads was laid down under the Nagpur Plan. This deficiency was mainly due to the complacency of the former administration as well as to the anxiety of the former Princely States to avoid their competing with the railway system owned by them. The result was that road transport was utterly neglected during pre-Independence days. Any progress which has been made is the outcome of the efforts made by Government after 1947. In the year 1960-61, the total road length of 14,481 miles was distributed into 7,410 miles of metalled and 7,071 miles of non-metalled roads. Distribution according to the class of roads shows 624 miles of National Highways, 2,500 miles of State Highways and 8,133 miles of other roads excluding village roads.

117. The increase in road traffic in recent

times can be gauged from the activities of the State Road Transport Corporation, which has been spreading out its operations in the farthest corners of the State. Prior to reorganisation, Saurashtra had a separate road transport organisation, which was placed under the Bombay State Road Transport Corporation in 1956. Kutch likewise had a separate unit. On bifurcation, when the Gujarat State Road Transport Corporation came into being, the nationalisation of road transport services was practically complete in Mainland Gujarat and Kutch area. But in Peninsular Gujarat, about 50 per cent of the roads were still under private operators or cooperative societies.

118. On 1st May, 1960 the Corporation had 1,767 vehicles, to which 124 were added during the year, when the route mileage increased from 37,206 to 41,513 and the average daily service mileage rose from 141,364 to 143,185 miles. The total number of passengers carried in the year 1960-61 was 1,463.90 lakhs as against 1,276.08 lakhs in the year 1959-60 showing an increase of 14.72 per cent over the previous year.

119. While the overall progress made in road transport during the first two Plan periods may be considered satisfactory as compared to the serious backwardness of the past, in the context of the overall development targeted according to the Nagpur Plan, there is a deficit of about 10,000 miles yet to be made up. The State has 21 miles of roads per 100 sq. miles of area or 74 miles of roads per 100,000 of population, which shows that much remains to be done in the development of road transport when compared to all-India average, for which corresponding statistics are 24 and 94 respectively.

Rail Transport

120. The State is well-linked by rail and has a total railway system of 3,315.87 miles, of which 561.57 miles or about 17 per cent are broad-gauge, 2,036.32 miles or 61.4 per cent metre-gauge, and about 718 or 21.6 per cent narrow-gauge. Between the two principal regions of the State Surendranagar district of Peninsular Gujarat has only 14.50 miles of broad-gauge, as the rest of the 547.07 miles are in Mainland Gujarat distributed between the districts of Ahmedabad, Kaira, the Panchmahals, Baroda, Broach and Surat. All the districts last named except Ahmedabad have only narrow-gauge line in addition, which is absent in Ahmedabad where metre-gauge line extends over 181.50 miles. In Peninsular Gujarat metre-gauge line covers 1,375.42 miles against 137.22 of narrow-gauge. There has not been any noticeable increase in the railway mileage of the State, though 27 miles of new lines were added between Gandhidham-Kandla, Pihij-Nadiad, Rajkot town–Rajkot and Gandhidham-Anjar during this period. A new metre-gauge line connecting Himatnagar with Udaipur was also planned for construction during the Second Plan period but was started during the Third. On completion, this rail link of about 214 km. will provide the shortest entry into Rajasthan, while the construction of Zund-Kandla line will facilitate movement of goods to the hinterland from the major port of Kandla.

121. Density of railway mileage per 1,000 sq. miles is also higher in Mainland Gujarat (55.70) than in Peninsular Gujarat (39.22). The density of railway mileage per lakh of population shows that there are 23.75 miles for Peninsular Gujarat as against 12.59 for Mainland Gujarat, the relatively better position of the former resulting from the better rail links provided by the Princely States of Kathiawar.

Ports and Harbours

122. Because of its vast coastline, Gujarat has a total number of 51 ports, of which Kandla alone is major. Of the rest, 10 are intermediate ports, located at Mandvi, Navlakhi, Bedi, Sikka, Okha, Porbandar, Veraval, Bhavnagar, Broach and Surat and 40 are minor ports. The expenditure incurred on the Gujarat ports was Rs. 105.77 lakhs during the First Plan, that incurred under the Second Plan Rs. 347.34 lakhs; and provision under the Third Rs. 370.00 lakhs. Apart from the extension of the existing facilities at various ports by dredging and other equipment for their maintenance, special attention has been paid to make Porbandar and Veraval all-weather ports. The capacity of ports for handling traffic, which was only 18 lakh tons in 1950-51 has been raised to 23 lakh tons by 1960-61, and is being augmented further during the Third Plan. The extent of traffic handled at various ports of the State given on the next page shows a progressive increase

in the handling of goods from one Plan period to another as a result of increasing facilities provided by the State Government. The Second Plan also provided for hydrographic surveys and preparation of certain models so essential for the development of ports at Porbandar and Veraval.

Passenger Traffic

123. The following table shows the movement of passenger traffic between 1956-57 and 1960-61 at the 7 ports of Mandvi, Bedi, Okha, Porbandar, Veraval, Navabandar and Jafrabad.

STATEMENT XII.41

Passenger traffic at different ports during 1956-57 and 1960-61

Sl. No.	Name of port		Total		Inward passengers		Outward passengers		Percentage increase(+) decrease(—)		
			1956-57	1960-61	1956-57	1960-61	1956-57	1960-61	Total	Inward passengers	Outward passengers
1	2		3	4	5	6	7	8	9	10	11
	Total	**T**	**65,502**	**70,644**	**33,884**	**37,825**	**31,618**	**32,819**	**+ 7.85**	**+11.63**	**+ 3.80**
		F	**18,814**	**15,721**	**11,146**	**9,077**	**7,668**	**6,644**	**—16.44**	**—18.56**	**—13.35**
		C	**46,688**	**54,923**	**22,738**	**28,748**	**23,950**	**26,175**	**+17.64**	**+26.43**	**+ 9.29**
1	Mandvi	T	50,408	39,901	26,785	21,018	23,623	18,883	—20.84	—21.53	—20.07
		F	12,587	9,603	8,261	4,915	4,326	4,688	—23.71	—40.50	+ 8.37
		C	37,821	30,298	18,524	16,103	19,297	14,195	—19.89	—13.07	—26.44
2	Bedi	T	1,916	1,461	773	670	1,143	791	—23.75	—13.32	—30.80
		F	1,867	1,461	724	670	1,143	791	—21.75	— 7.46	—30.80
		C	49	..	49	..	..	..	..	..	..
3	Okha	T	154	8,661	50	4,360	104	4,301	+5,524.03	+8,620.00	+4,035.58
		F	..	..	..	..	..	..	..	..	..
		C	154	8,661	50	4,360	104	4,301	+5,524.03	+8,620.00	+4,035.58
4	Porbandar	T	4,421	4,861	2,207	3,662	2,214	1,199	+ 9.95	+65.93	—45.84
		F	4,360	4,657	2,161	3,492	2,199	1,165	+ 6.81	+61.59	—47.02
		C	61	204	46	170	15	34	+234.43	+269.57	+126.67
5	Veraval	T	1,406	2,596	750	1,557	656	1,039	+84.64	+107.60	+58.38
		F	..	..	..	..	..	..	..	..	..
		C	1,406	2,596	750	1,557	656	1,039	+84.64	+107.60	+58.38
6	Navabandar	T	4,499	8,540	1,991	4,224	2,508	4,316	+89.82	+112.15	+72.09
		F	..	..	..	..	..	..	..	..	..
		C	4,499	8,540	1,991	4,224	2,508	4,316	+89.82	+112.15	+72.09
7	Jafrabad	T	2,698	4,624	1,328	2,334	1,370	2,290	+71.39	+75.75	+67.15
		F	..	..	..	..	..	..	..	..	..
		C	2,698	4,624	1,328	2,334	1,370	2,290	+71.39	+75.75	+67.15

T=Total F=Foreign C=Coastal

NOTE :

The above figures are exclusive of passenger traffic handled through ferry services at various ports.

Source:

Ports Traffic Review, Gujarat State, 1960-61

The total passenger traffic during this period increased from 65,502 to 70,644 or by 7.85 per cent. As compared to increase of 11.63 per cent in inward passenger traffic, the rise in outward passenger traffic has been much less 3.80 per cent only. Foreign passenger traffic showed a decline of 18.56 per cent in inward and 13.35 per cent in outward. But there has been noteworthy increase in coastal traffic, 26.43 per cent in inward and 9.29 per cent in outward. These variations are reflected in the passenger traffic at the different ports to a varied extent. While coastal traffic both inward and outward has considerably increased at the ports of Jafrabad, Navabandar, Veraval, Porbandar and Okha, foreign traffic which is non-existent at Jafrabad, Navabandar, Veraval and Okha, has declined at Mandvi and Bedi, but risen a little at Porbandar.

Goods Traffic

124. The following statement gives the total tonnage of cargo handled at State ports numbering 50 and excludes the major port of Kandla which is centrally administered.

STATEMENT XII.42

Import and export cargo handled at different ports, 1955-56 and 1960-61

(Figures in tons)

Sl. No.	Name of port	Import		Export		Total		Percentage Increase(+) decrease(—)		
		1955-56	1960-61	1955-56	1960-61	1955-56	1960-61	Import	Export	Total
1	2	3	4	5	6	7	8	9	10	11
	Total	**687,714**	**750,924**	**1,243,424**	**1,595,132**	**1,931,138**	**2,346,056**	**+ 9.19**	**+28.29**	**+21.49**
1	Mandvi	30,100	23,388	3,407	6,914	33,507	30,302	—22.30	+102.94	— 9.57
2	Navlakhi	1,749	29,479	60,597	65,979	62,346	95,458	+1,585.48	+ 8.88	+53.11
3	Bedi	55,562	33,601	293,610	312,344	349,172	345,945	—39.53	+ 6.38	— 0.92
4	Sikka	4,755	3,740	87,464	198,460	92,219	202,200	—21.01	+126.90	+119.26
5	Okha	230,122	206,814	196,884	375,709	427,006	582,523	—10.13	+90.83	+36.42
6	Porbandar	51,174	58,699	97,927	83,768	149,101	142,467	+14.70	—14.46	— 4.45
7	Veraval	66,265	86,902	81,510	136,723	147,775	223,625	+31.14	+67.74	+51.33
8	Bhavnagar	139,501	190,844	140,300	146,345	279,801	337,189	+36.80	+ 4.31	+20.51
9	Broach	27,768	13,205	31,460	14,169	59,228	27,374	—52.45	—54.96	—53.78
10	Surat	2,507	13,343	8,696	4,227	11,203	17,570	+432.23	—51.39	+56.83
11	Lakhpat	201	..	31	..	232	..	—100.00	—100.00	—100.00
12	Koteshwar	510	27	..	..	510	27	—94.71	..	—94.71
13	Jakhau	958	30	40,903	39,377	41,861	39,407	—96.87	— 3.73	— 5.86
14	Mundra	4,930	2,105	33,637	33,251	38,567	35,356	—57.30	— 1.15	— 8.33
15	Jodiya	569	467	188	27	757	494	—17.93	—85.64	—34.74
16	Salaya	2,542	3,737	7,860	14,031	10,402	17,768	+47.01	+78.51	+70.81
17	Pindhara	..	..	..	35	..	35	..	+100.00	+100.00
18	Beyt	181	325	21	132	202	457	+79.56	+528.57	+126.24
19	Dwarka (Rupen)	1,022	1,206	9,934	7,269	10,956	8,475	+18.00	—26.83	—22.65
20	Lamba	101	110	..	..	101	110	+ 8.91	..	+ 8.91
21	Miyani	..	..	..	..	..	..	..	..	..
22	Madhavpur	171	..	..	..	171	..	..	—100.00	—100.00
23	Shil	..	..	..	..	..	..	..	..	..
24	Mangrol	2,454	3,002	2,254	1,889	4,708	4,891	+22.33	—16.19	+ 3.89
25	Sutrapada	..	..	..	4	..	4	..	+100.00	+100.00
26	Kodinar (Mul Dwarka)	253	399	454	..	707	399	+57.71	—100.00	—43.56
27	Kotda	483	75	151	27	634	102	—84.47	—82.12	—83.91
28	Madhawad	2,233	705	1,999	2,377	4,232	3,082	—68.43	+18.91	—27.17
29	Navabandar	3,342	5,959	2,411	3,139	5,753	9,098	+78.31	+30.19	+58.14
30	Simar	556	472	..	10	556	482	—15.11	+100.00	—13.31
31	Rajpara	302	471	896	1,658	1,198	2,129	+55.96	+85.04	+77.71
32	Jafrabad	5,807	4,474	58,924	33,134	64,731	37,608	—22.96	—43.77	—41.90
33	Rajula	2,124	1,190	11,244	37,212	13,368	38,402	—43.97	+243.16	+187.27
34	Mahuva	22,812	31,084	23,819	30,661	46,631	61,745	+36.26	+28.72	+31.57
35	Talaja	4,646	6,004	10,234	16,500	14,880	22,504	+29.23	+61.23	+51.24
36	Ghogho	..	811	..	12,414	..	13,225	+100.00	+100.00	+100.00
37	Dholera	1,283	785	1,887	..	3,170	785	—38.82	—100.00	—75.24
38	Cambay	1,925	110	124	6	2,049	116	—94.29	—95.16	—94.34
39	Kavi	..	1,270	..	835	..	2,105	+100.00	+100.00	+100.00
40	Tankari	..	508	..	17	..	525	+100.00	+100.00	+100.00
41	Dahej	..	197	..	113	..	310	+100.00	+100.00	+100.00
42	Bhagwa	..	2,162	..	8	..	2,170	+100.00	+100.00	+100.00
43	Onjal	..	702	..	161	..	863	+100.00	+100.00	+100.00
44	Vansi-Borsi	3,991	3,006	20	465	4,011	3,471	—24.68	+2,225.00	—13.46
45	Bilimora	6,864	7,904	13,507	4,000	20,371	11,904	+15.15	—70.39	—41.56
46	Bulsar	7,951	7,524	21,071	6,861	29,022	14,385	— 5.37	—67.44	—28.15
47	Umarsadi	..	1,833	..	785	..	2,618	+100.00	+100.00	+100.00
48	Kolak	..	1,349	..	556	..	1,905	+100.00	+100.00	+100.00
49	Maroli	..	275	..	..	..	275	+100.00	..	+100.00
50	Umbergaon	..	631	..	3,540	..	4,171	+100.00	+100.00	+100.00

Source:

Ports, Traffic Review, Gujarat State,1960-61

The total tonnage handled increased from 1,931,138 to 2,346,056 between 1955-56 and 1960-61, registering an increase of 21.49 per cent. The import cargo handled during this period rose from 687,714 tons to 750,924 tons and that of export from 1,243,424 tons to 1,595,132 tons showing percentage increases of 9.19 and 28.29 respectively.

Major Port of Kandla

125. Realising the necessity of a major port on the west coast, the Government of India after detailed investigation selected a site about 2 miles south of the existing Kandla Port. The new port is situated on the west bank of Kandla creek, an excellent natural harbour having requisite depths of water at certain stages of tides for the largest ships. As the creek runs north to south, it is completely sheltered from the effects of the south-west monsoon.

Kandla Free Trade Zone

126. A free trade zone, the first of its kind in India is being established at Kandla, which is favourably situated in relation to African and South-West Asian ports. The main objectives of the Kandla zone are promotion of Indian exports, earning of more foreign exchange, increasing employment potential of Kandla and Gandhidham areas and utilising the facilities developed at the port. Other parts of the world where free trade zones exist are Stockholm, Gothenburg, Copenhagen, Hamburg, Bremen and Genoa in Europe; New York, New Orleans, San Francisco, Los Angeles, Seattle and San Antonia in U.S.A. and Mexico and Panama in Latin America. A free trade zone is a device to make goods competitive, to eliminate overhead costs, and to stimulate reprocessing industries for export. As no customs or central excise is to be paid on imported raw materials or component parts, investment expenditure will be reduced.

127. The Kandla Free Trade Zone will be an economic hinterland port serving a population of 85 millions and an area of 412,300 sq. miles comprising Kutch, North and Central Gujarat, Rajasthan, Western Madhya Pradesh, Western and Central Uttar Pradesh, Punjab and Jammu and Kashmir.

Facilities and Concessions

128. The facilities to be provided in the Free Trade Zone include a deep water jetty 825 x 2,700 metres equipped with 21 cranes of 3–10 tons capacity, four double-storeyed warehouses, 3 transit sheds, mooring berths, oil jetty with pipe-lines and a railway station with a marshalling yard. While there will be 20 sheds of 36 x 18 metres to be given to small industrialists on hire, an area of 268,650 sq. metres of land has been reserved in big plots for large industrialists. Land on 30 years lease will be provided at a reasonable ground-rent which is not expected to be more than 50 paise per sq. metre per annum. On completion of Zund-Kandla tract, Kandla will be linked with Ahmedabad and Viramgam *via* Zund. So far 52 firms have been granted plots considering their high export potential and high import content of raw materials. These are the industries dealing in bicycle components, hand knitting machines, surgical instruments and appliances, calcination of bauxite, tea in packets for consumers, vacuum metalizing of plastic articles, etc.

SECTION 10

SOCIAL SERVICES

129. The progress of social services in the State during the past decennium will be examined under such heads as education, medical and public health, housing, social welfare and labour welfare.

Plan Outlay and Expenditure

130. The total allocation for social services was Rs. 28.05 crores as against the incurred expenditure of Rs. 29.33 crores during the Second Five Year Plan. The break-down of this expenditure is given in the statement opposite.

STATEMENT XII.43

Outlay and expenditure on social services

(Rs. in crores)

Sl. No.	Item	Outlay	Expenditure	Per cent
1	2	3	4	5
1	Education . .	8.99	10.02	111.46
2	Health . . .	9.46	10.03	106.03
3	Housing . .	5.85	5.41	92.48
4	Labour and labour welfare . .	0.80		
5	Welfare of backward classes . .	2.30	3.87	103.20
6	Social welfare . .	0.65		
	Total . .	**28.05**	**29.33**	**104.56**

The expenditure for the Second Plan period on the various heads of social services has been exceeded except in case of housing where the target is well-nigh reached.

(a) EDUCATION

(i) *Peninsular Gujarat*

131. The two Plan periods witnessed intensive efforts at increasing educational facilities in various fields, primary, secondary, university, technical as well as non-technical. In Saurashtra region intensive drive for the eradication of illiteracy was carried on by providing increasing facilities for primary education. The number of school-going children in the ages 6 to 14 increased from 2.23 lakhs in 1951-52 to 30.36 lakhs in 1955-56 corresponding increase in the number of primary schools being from 2,400 to 3,740. An important phase of development in primary education was the introduction of basic education by converting about 600 schools into primary basic schools. Teaching facilities for primary teachers went apace by increasing the original number of such institutions from 2 to 12 during the First Plan period, having a total strength of 4,460 trained teachers as against 843 during the period preceding integration. The field of secondary education expanded *pari pasu* and introduced such new feature as teaching of crafts, A.C.C. and N.C.C. Eighteen *Lokshalas* were also started in rural areas. While the existing arts and science colleges were expanded to accommodate increasing demand for admissions, two more non-Government arts and science colleges were added during the First Plan period. The Technical Institute at Morvi was converted into an engineering college. A law college was also started at Rajkot, while Gram Vidyapith was established at Sanosara, which is the first institution of its kind, giving higher rural education. Adult literacy classes were opened at 1,000 adult education centres. Two technical institutions were started, one at Rajkot and another at Bhavnagar.

(ii) *Mainland Gujarat*

132. In Mainland Gujarat the number of primary schools rose from 10,025 in 1951-52 to about 15,322 in 1955-56 with corresponding increase in the number of pupils from 1,241,975 to 1,638,895 in 1955-56. While secondry schools increased from 607 to 668 during that period, the strength of scholars went up from 190,026 to 240,631. Technical education also made further progress by (a) the establishment of an

STATEMENT

Number of recognised institutions,

State/District	Year	Primary education			Secondary education		
		Institutions	Pupils	Teachers	Institutions	Pupils	Teachers
1	2	3	4	5	6	7	8
GUJARAT	**1958-59**	**17,095**	**1,996,545**	**51,402**	**795**	**295,031**	**11,164**
	1959-60	**17,563**	**2,108,136**	**56,821**	**986**	**327,285**	**12,674**
	1960-61	**18,512**	**2,247,013**	**58,762**	**1,099**	**364,853**	**14,159**
1 Jamnagar	1958-59	685	61,358	2,063	20	8,158	558
	1959-60	721	65,431	2,215	26	9,557	409
	1960-61	739	71,756	2,339	28	9,827	426
2 Rajkot	1958-59	1,079	126,798	3,795	47	20,876	780
	1959-60	958	123,445	3,709	71	21,040	859
	1960-61	974	126,754	3,810	74	21,469	877
3 Surendranagar	1958-59	619	48,891	1,866	21	7,557	284
	1959-60	633	51,838	1,928	41	8,422	359
	1960-61	638	54,738	1,959	42	8,283	356
4 Bhavnagar	1958-59	1,140	107,157	3,202	38	16,678	657
	1959-60	1,000	97,064	2,756	51	15,885	671
	1960-61	1,025	98,272	3,235	52	15,856	656

Source:

Handbooks of Basic Statistics, Gujarat State, 1961 and 1962

engineering college and (b) providing courses in textile manufacture, textile chemistry and electrical engineering at R.C. Technical Institute, both at Ahmedabad.

133. The above is the picture of the progress made by the two regions of the State, namely, Peninsular and Mainland Gujarat, both of which had separate plans for the First Plan period. During the Second Plan, there was a total outlay of Rs. 899.51 lakhs, which included Rs. 111.69 lakhs for promoting technical education. In the field of primary education compulsion was introduced in all the districts of Mainland Gujarat covering the age range 7-11, whereas ground was prepared for the introduction of compulsory primary education in the areas of Penisular Gujarat. The total number of primary schools in the State rose from 15,322 at the beginning of the Second Plan to about 17,942 at its end, corresponding increase in the number of pupils being from 1,638,895 to about 2,213,800 in 1960-61. 1,739 primary schools were converted into basic, while 16 new basic primary colleges were started in addition to 4 already in existence for increasing facilities for the training of primary teachers. Thus, the strength of trained teachers rose from 50 per cent in 1955-56 to 53 per cent in 1960-61. In the field of secondary education the number of schools rose from 668 at the commencement of the Second Plan to 1,122 at its end, with corresponding increase in the number of scholars from 240,631 to 342,000. The Second Plan aimed at growth and diversification of secondary education (i) by increasing facilities for industrial and technical education, and (ii) by introducing courses in home science, agriculture, commerce and fine arts, which accounted for 31, 20, 38 and 21 schools respectively. Another noteworthy step in the extension of secondary education was provision of free education to the children of all persons irrespective of caste and creed having an annual income not exceeding Rs. 1,200. Higher education progressed simultaneously by adding 26 more institutions to 59 that existed at the commencement of the Second Plan increasing the number of students from 27,327 to 46,371.

PROGRESS OF EDUCATION

134. Progress in education is also observable from the following table which gives the breakdown for the number of recognised institutions, pupils and teachers in primary, secondary and higher institutions for 3 years of the Second Plan period 1958-59 to 1960-61.

XII.44

pupils and teachers, 1958–61

State/District	Year	Higher education			Special education			Total		
		Institutions	Pupils	Teachers	Institutions	Pupils	Teachers	Institutions	Pupils	Teachers
1	2	9	10	11	12	13	14	15	16	17
GUJARAT	**1958–59**	**79**	**40,201**	**2,257**	**8,636**	**234,036**	**N.A.**	**26,605**	**2,565,813**	**64,823**
	1959–60	**84**	**44,766**	**2,677**	**8,908**	**237,502**	**N.A.**	**27,541**	**2,717,689**	**72,172**
	1960–61	**101**	**49,831**	**2,947**	**7,965**	**208,552**	**N.A.**	**27,677**	**2,870,249**	**75,868**
1 Jamnagar	1958–59	5	812	108	460	11,113	N.A.	1,170	81,441	2,729
	1959–60	5	1,075	123	412	9,520	N.A.	1,164	85,583	2,747
	1960–61	6	1,130	127	307	8,176	N.A.	1,080	90,889	2,892
2 Rajkot	1958–59	4	2,375	129	736	20,588	N.A.	1,866	170,637	4,704
	1959–60	4	2,655	135	699	20,469	N.A.	1,732	167,609	4,703
	1960–61	5	2,933	148	388	12,647	N.A.	1,441	163,803	4,835
3 Surendranagar	1958–59	1	365	26	472	10,987	N.A.	1,113	67,800	2,176
	1959–60	1	510	29	512	13,463	N.A.	1,187	74,233	2,316
	1960–61	1	517	29	316	9,473	N.A.	997	73,011	2,344
4 Bhavnagar	1958–59	5	1,907	88	695	15,953	N.A.	1,878	141,695	3,947
	1959–60	4	2,239	120	802	15,564	N.A.	1,857	130,752	3,547
	1960–61	4	2,072	93	196	7,991	N.A.	1,277	124,191	3,984

N.A.=Not available

STATEMENT

Number of recognised institutions,

State/District	Year	Primary education			Secondary education		
		Institutions	Pupils	Teachers	Institutions	Pupils	Teachers
1	2	3	4	5	6	7	8
5 Amreli	1958–59	335	38,528	792	15	3,385	158
	1959–60	600	61,098	1,708	25	5,482	228
	1960–61	599	65,407	1,801	29	5,619	232
6 Junagadh	1958–59	1,023	83,813	2,467	38	14,977	595
	1959–60	1,028	87,509	3,210	54	15,183	653
	1960–61	1,032	95,132	3,349	58	13,688	545
7 Kutch	1958–59	542	44,655	1,182	32	8,089	279
	1959–60	587	47,943	1,275	35	8,030	313
	1960–61	694	55,348	1,439	37	8,651	363
8 Banaskantha	1958–59	1,204	63,575	1,890	17	3,096	130
	1959–60	1,205	66,494	1,973	23	3,657	148
	1960–61	1,291	68,016	2,062	25	4,369	189
9 Sabarkantha	1958–59	1,026	96,384	2,251	33	6,861	276
	1959–60	1,084	102,035	2,421	35	8,091	316
	1960–61	1,095	108,766	2,693	39	9,757	376
10 Mehsana	1958–59	1,102	165,797	4,013	93	27,738	1,094
	1959–60	1,154	191,844	4,303	105	30,885	1,242
	1960–61	1,193	224,093	4,545	116	35,628	1,394
11 Ahmedabad	1958–59	1,237	242,996	5,450	101	58,563	2,110
	1959–60	1,280	255,469	6,108	127	65,713	2,322
	1960–61	1,324	265,620	6,411	145	74,548	2,686
12 Kaira	1958–59	1,482	239,222	5,546	103	37,376	1,374
	1959–60	1,501	246,807	5,936	122	41,621	1,575
	1960–61	1,557	255,136	6,099	131	47,203	1,605
13 Panchmahals	1958–59	1,550	137,090	3,535	41	10,878	430
	1959–60	1,626	139,595	3,803	49	12,292	461
	1960–61	1,758	138,418	3,924	58	14,154	797
14 Baroda	1958–59	1,180	159,858	4,069	76	24,150	913
	1959–60	1,210	170,675	4,185	81	28,680	1,109
	1960–61	1,224	180,557	4,564	89	33,543	1,256
15 Broach	1958–59	974	99,934	2,727	27	9,625	141
	1959–60	990	104,771	2,537	37	11,385	425
	1960–61	1,023	111,409	2,761	47	13,408	510
16 Surat	1958–59	1,827	276,438	6,364	92	36,884	1,373
	1959–60	1,881	291,074	8,576	103	41,200	1,572
	1960–61	2,181	321,876	7,560	128	48,730	1,878
17 Dangs	1958–59	90	4,051	190	1	140	12
	1959–60	105	5,044	178	1	162	12
	1960–61	165	5,715	211	1	120	13

The foregoing Statement shows uniform progress in the expansion of educational facilities in all the three fields of education, primary, secondary and higher, which has also tried its best to provide necessary teaching staff to cope with the increase in the number of institutions and pupils.

135. The break down for the districts is available for 1958-59 to 1960-61. These data are

XII.44-*contd.*

pupils and teachers, 1958–61

State/District	Year	Higher education			Special education			Total		
		Institutions	Pupils	Teachers	Institutions	Pupils	Teachers	Institutions	Pupils	Teachers
1	2	9	10	11	12	13	14	15	16	17
5 Amreli	1958–59	..	..	..	214	5,367	N.A.	564	47,280	950
	1959–60	..	..	..	220	4,964	N.A.	845	71,544	1,936
	1960–61	..	..	..	221	5,573	N.A.	849	76,599	2,033
6 Junagadh	1958–59	4	913	48	487	13,872	N.A.	1,552	113,575	3,110
	1959–60	5	1,067	74	704	17,626	N.A.	1,791	121,385	3,937
	1960–61	7	1,242	104	335	10,558	N.A.	1,432	120,620	3,998
7 Kutch	1958–59	1	319	26	269	6,193	N.A.	844	59,256	1,487
	1959–60	1	331	24	650	12,164	N.A.	1,273	68,468	1,612
	1960–61	1	322	24	230	5,216	N.A.	962	69,537	1,826
8 Banaskantha	1958–59	..	..	..	331	6,393	N.A.	1,552	73,064	2,020
	1959–60	..	..	..	327	6,724	N.A.	1,555	76,875	2,121
	1960–61	..	..	..	372	6,796	N.A.	1,688	79,181	2,251
9 Sabarkantha	1958–59	..	..	..	510	12,091	N.A.	1,569	115,336	2,527
	1959–60	..	..	..	388	11,123	N.A.	1,507	121,249	2,737
	1960–61	2	280	32	445	11,288	N.A.	1,581	130,091	3,101
10 Mehsana	1958–59	1	717	39	575	19,834	N.A.	1,771	214,086	5,146
	1959–60	2	1,060	77	690	20,849	N.A.	1,951	244,638	5,622
	1960–61	4	1,342	93	698	21,735	N.A.	2,011	282,798	6,032
11 Ahmedabad	1958–59	24	15,111	757	635	20,683	N.A.	1,997	337,353	8,317
	1959–60	25	16,340	873	706	21,397	N.A.	2,138	358,919	9,303
	1960–61	26	17,838	864	857	22,323	N.A.	2,352	380,329	9,961
12 Kaira	1958–59	8	5,443	339	621	18,234	N.A.	2,214	300,275	7,259
	1959–60	10	5,926	364	293	12,402	N.A.	1,926	306,756	7,875
	1960–61	14	6,608	459	461	13,914	N.A.	2,163	322,861	8,163
13 Panchmahals	1958–59	..	..	..	818	25,770	N.A.	2,409	173,738	3,965
	1959–60	..	..	..	539	14,681	N.A.	2,214	166,568	4,264
	1960–61	1	210	17	638	15,088	N.A.	2,455	167,870	4,738
14 Baroda	1958–59	16	7,138	446	384	14,137	N.A.	1,656	205,283	5,428
	1959–60	16	8,025	580	373	15,690	N.A.	1,680	223,070	5,874
	1960–61	18	9,387	639	580	16,391	N.A.	1,911	239,878	6,459
15 Broach	1958–59	2	469	37	506	13,037	N.A.	1,509	123,065	2,905
	1959–60	4	713	23	658	17,786	N.A.	1,689	134,655	2,985
	1960–61	4	651	59	764	18,489	N.A.	1,838	143,957	3,330
16 Surat	1958–59	8	4,632	214	846	18,729	N.A.	2,773	336,683	7,951
	1959–60	7	4,825	255	911	22,398	N.A.	2,902	359,497	10,403
	1960–61	8	5,299	259	1,132	22,206	N.A.	3,449	398,111	9,697
17 Dangs	1958–59	..	..	..	77	1,055	N.A.	168	5,246	202
	1959–60	..	..	..	24	682	N.A.	130	5,888	190
	1960–61	..	..	..	25	688	N.A.	191	6,523	224

not strictly comparable, as the figures furnished do not take into account the territorial changes that have taken place after bifurcation. They are, however, useful for showing general advance in all the three branches of education—primary, secondary and higher—and expansion of educational facilities all over the State. All the districts of the State are marked by a progressive

increase in the number of institutions, pupils and teachers during the period under review. The only exceptions are the districts of Rajkot and Bhavnagar where primary education appears to have suffered a decline. But this is not so in fact, as the correct answer is to be sought in the figures relating to Amreli where the rise is seen to be phenomenal owing to the inclusion in this district of a large number of villages from the other two districts. The figures for special education also show very large reduction in the number of institutions and pupils in 1960-61 over the figures of 1958-59 and 1959-60 in a number of districts probably due to some misclassification.

136. Among the districts, Surat which is the largest in size and population tops the list in having the highest number of institutions, pupils and teachers in primary education in 1960-61. The Dangs district which is backward in education and very small in size and population has the lowest number of primary schools, pupils and teachers. Whereas the Panchmahals district stands second with regard to primary schools, Ahmedabad takes this place in respect of pupils and primary teachers. In the field of secondary education, Ahmedabad district has the highest number of schools, pupils and teachers, followed by Kaira and Surat. The Dangs district has only one secondary school with 120 pupils and 13 teachers. Ahmedabad district again ranks first in having the highest number of institutions, pupils and teachers in higher education in 1960-61 followed by Baroda, Kaira and Surat. The districts which lacked facilities of higher education are Amreli, Banaskantha and the Dangs, whereas Sabarkantha and the Panchmahals got it for the first time in 1960-61.

137. Mainland Gujarat where the level of education is comparatively higher than in Peninsular Gujarat fares better in having greater facilities of imparting education at different stages. Other districts which were formerly backward are also coming up by adding substantially to the existing strength of institutions, pupils and teachers.

(b) Medical and Public Health Services

138. The extension of medical and public health facilities in the State has been reviewed later in this Chapter (*vide* Statement XII.92), while discussing certain indices of achievement. It will be seen therefrom that there has been a progressive increase in the provision of medical and public health facilities in the State from one Plan to another. The number of hospitals has increased from 60 in 1950-51 to 89 in 1955-56 and to 98 in 1960-61. Increase in dispensaries has been still greater as seen from the growth in their number from 283 in 1950-51 to 525 in 1960-61. The provision of beds has been equally rapid, from 4,648 to 7,225 during the period under review. The primary health units and primary health centres which jointly numbered 62 in 1955-56 rose to 142 in 1960-61. All these facilities are found to have been uniformly distributed over different districts of the State by opening up new institutions where they did not exist before.

PART C—OUTPUT AND INCOME

SECTION 11

STATE INCOME

THE BASIS OF THE DATA

139. Computation of national income is a yardstick used for measuring the progress and economic development of a State and its people. Such a computation is based upon a complex theoretical analysis dependent on the availability of a variety of statistical data about the economic activities of the people. But on account of the incomplete nature of the information required, it is difficult to properly evaluate national income, a concept which is differently interpreted in different countries. For the purpose of this part, it would suffice if an attempt is made to assess the value of all the economic activities pursued by the people of the State as represented by the production of goods and services in relation to a certain definite period of time and market prices correlated to the growth of population.

140. Estimates of State income for the Gujarat State are available for the years 1955-56 to 1960-61. The income estimates are prepared at constant prices for all these years and the year 1960-61 is selected for the computation of State income at these prices. Since income originating concept is employed for the purpose of estimation, the State income measures the volume of domestic products within the boundaries of Gujarat State. The estimates are prepared by adopting the product approach for the commodity producing sectors like agriculture, animal husbandry, forestry, fisheries, mining and factory establishments including gas and electric supply. Income approach, as it is the most suitable considering the availability of statistics required for estimation, has been adopted for the remaining sectors. The estimates for the small enterprises sector are based on the results of the sample surveys conducted by the State Statistical Bureau. The methodology followed for the preparation of income estimates for the two important sectors, i.e., agriculture and factory establishments is given in Annexure.

141. While there are certain obvious limitations to the use of national/State income data owing to the lack of adequate information on which they should be based, they are good enough for indicating certain definite trends in the growth of output and income and measuring sum total of economic activities in the different sectors of the economy. While the use of absolute figures of total income or income per head may not present a realistic picture of economic development in the State, comparison of indices would be helpful in assessing the trends at work over time.

STATE INCOME BY INDUSTRIAL SECTORS

142. The State income according to the various sectors of the economy—primary, secondary and tertiary sectors—and industrial activities is presented in the tables that follow alongwith percentage distribution.

STATEMENT XII.45

State income by industrial origin

(At constant prices)

(Rs. in lakhs)

	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
I—Agriculture and Allied activities						
1 Agriculture	20,352	24,218	21,514	30,381	24,520	27,122
2 Animal Husbandry	3,988	4,099	4,152	4,259	4,329	4,338
3 Forestry	302	302	360	365	596	458
4 Fisheries	117	136	147	168	169	225
I Total	**24,759**	**28,755**	**26,173**	**35,173**	**29,614**	**32,143**

STATEMENT XII.45-*contd.*

State income by industrial origin

(At constant prices)

(Rs. in lakhs)

	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
II—Mining, Manufacturing and Small Enterprises						
5 Mining	461	454	477	535	466	463
6 Factory Establishments	9,451	10,073	10,362	10,714	10,983	10,155
7 Small Enterprises	2,649	2,750	2,755	2,898	2,887	3,049
8 Construction	1,568	1,608	1,651	1,694	1,738	1,782
Total	**14,129**	**14,885**	**15,245**	**15,841**	**16,074**	**15,449**
III—Commerce, Transport and Communication						
9 Communication	195	195	236	236	236	236
10 Railways	1,602	1,760	1,993	2,086	2,232	2,361
11 Banking and Insurance	535	567	632	716	785	877
12 Other Commerce	5,776	5,859	5,948	6,751	7,197	7,210
13 Other Transport	750	766	824	847	902	930
Total	**8,858**	**9,147**	**9,633**	**10,636**	**11,352**	**11,614**
IV—Other Services						
14 Professions and Liberal Arts	3,861	3,960	4,065	4,171	4,279	4,388
15 Domestic Services	1,083	1,111	1,140	1,170	1,200	1,231
16 Public Administration	1,570	1,608	1,669	1,683	1,724	1,841
17 House Property	2,082	2,164	2,214	2,286	2,343	2,457
Total	**8,596**	**8,843**	**9,088**	**9,310**	**9,546**	**9,917**
Net domestic product at factor cost	*56,342*	*61,630*	*60,139*	*70,960*	*66,586*	*69,123*
Per capita income (in Rs.)	309	330	314	363	333	338
Mid-financial year population (in lakhs)	182.61	186.97	191.34	195.70	200.06	204.42

Source :

State Income Estimates, 1955-56 to 1960-61, Gujarat State

STATEMENT XII.46

State income by industrial origin-percentage distribution

(At constant prices)

	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
I—Agriculture and Allied activities						
1 Agriculture	36.12	39.30	35.77	42.82	36.82	39.24
2 Animal Husbandry	7.08	6.65	6.90	6.00	6.50	6.28
3 Forestry	0.54	0.49	0.60	0.51	0.90	0.66
4 Fisheries	0.20	0.22	0.25	0.24	0.25	0.32
Total	**43.94**	**46.66**	**43.52**	**49.57**	**44.47**	**46.50**
II—Mining, Manufacturing and Small Enterprises						
5 Mining	0.82	0.74	0.79	0.75	0.70	0.67
6 Factory Establishments	16.78	16.34	17.23	15.10	16.49	14.69
7 Small Enterprises	4.70	4.46	4.58	4.08	4.34	4.41
8 Construction	2.78	2.61	2.75	2.39	2.61	2.58
Total	**25.08**	**24.15**	**25.35**	**22.32**	**24.14**	**22.35**
III—Commerce, Transport and Communication						
9 Communication	0.35	0.32	0.39	0.33	0.35	0.34
10 Railways	2.84	2.86	3.32	2.94	3.35	3.42
11 Banking and Insurance	0.95	0.92	1.05	1.01	1.18	1.27
12 Other Commerce	10.25	9.50	9.89	9.52	10.81	10.43
13 Other Transport	1.33	1.24	1.37	1.19	1.36	1.34
Total	**15.72**	**14.84**	**16.02**	**14.99**	**17.05**	**16.80**
IV—Other Services						
14 Professions and Liberal Arts	6.85	6.43	6.76	5.88	6.43	6.35
15 Domestic Services	1.92	1.80	1.90	1.65	1.80	1.78
16 Public Administration	2.79	2.61	2.77	2.37	2.59	2.66
17 House Property	3.70	3.51	3.68	3.22	3.52	3.56
Total	**15.26**	**11.35**	**15.11**	**13.12**	**14.34**	**14.35**
Net domestic product at factor cost	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*

Source :

State Income Estimates, 1955-56 to 1960-61, Gujarat State

The primary sector includes agriculture, animal husbandry, fisheries and forestry. Mining activities have been accounted for in the secondary sector along with factory establishments, small enterprises and construction. The remaining sectors have been clubbed together to form the tertiary sector. Total State income at the end of the First Five Year Plan is estimated to be Rs. 563 crores and the corresponding estimate for the end year of the Second Plan is placed at Rs. 691 crores. This indicates 23 per cent rise in income during the Second Five Year Plan. The average annual rate of growth in income of the State is thus found to be 4.6 per cent during the Second Plan period. The *per capita* income of the State for the last year of the First Plan was Rs. 309 which increased to Rs. 338 at the end of the Second Plan. The *per capita* income during the Second Plan period indicated only a 9 per cent rise as against 23 per cent in the total State income, the difference in percentage increase between the two being absorbed by the rise of population during the period under review. The rate of growth in income was only 1.9 per cent during the Second Plan period.

143. The index of income with 1955-56 equal to 100 for the primary sector rose to 130 by the end of the Second Plan, although the highest index of income did not show any continuous rise because of a large contribution from agriculture, which in turn is dependent on the vagaries of monsoon. The index clearly reflects the cycle of good and bad agricultural years in the State. The average annual rate of increase in income from this sector was 6 per cent for the Second Plan period. The income from mining, factory establishments, small enterprises and construction taken together was estimated to be Rs. 141 crores in 1955-56. This rose to Rs. 161 crores in 1959-60 but witnessed a slight fall and declined to Rs. 154 crores in 1960-61.

144. Income from tertiary sector indicated a continuous rise during the Second Plan period. The total rise in income over 1955-56 was of the order of 23 per cent. This works to an average annual growth rate of 4.6 per cent. In absolute terms the contribution of the tertiary sector was Rs. 175 crores in 1955-56 and by the year 1960-61 it became Rs. 215 crores.

145. The contribution of the primary sector which has always been more than 40 per cent was 46.5 per cent to the State income in 1960-61. The factory establishments, one of the important sectors of the State economy, contributed no less than 15 per cent to the State income in 1960-61. The total share, however, of the secondary sector towards the State income was about 22.35 per cent. The rest of the contribution about 31 per cent of the income was from the tertiary sector.

146. The percentage share of a sector alone cannot give any idea about its importance, unless read with the size of the working force engaged in it. It is interesting to note that as against the contribution of about 47 per cent to the State income, the primary sector accounts for a large proportion of working force, more than 72 per cent of the workers engaged in primary activities. Working force in the secondary sector is about 11 per cent as against its contribution of 22 per cent to the State income. Workers in the tertiary sector are about 17 per cent of the total and account for income contribution of 31 per cent. These percentages are indicative of very low productivity of the persons engaged in the primary sector and the highest *per capita* productivity in the secondary sector followed by the tertiary sector.

147. The basic economy of the State being agricultural, over 45 per cent of the State income is derived from agriculture and allied activities, the next in order being (i) manufacturing and mining 22.35 per cent, (ii) commerce, transport and communications 16.80 per cent and (iii) other services 14.35 per cent. The highest income from agricultural commodities at 1960-61 constant prices was 50 per cent of the total in 1958-59 and that for manufacturing commodities a little over one-fourth in 1955-56 and 195-758. These figures also show the relatively greater importance of the tertiary sector in the production activities of the State as accounting for nearly 30 per cent of the State income from professions and services as compared to manufacturing which contributes one-fourth. But taking all the goods producing activities together, nearly 70 per cent of the State income is generated from the production of commodities in the primary and the secondary sectors.

148. The total income generated in the State at 1960-61 prices has been estimated to be Rs. 563 crores at the end of 1955-56, which has risen to Rs. 691 crores at the end of the Second Plan, the provisional estimates for the years 1961-62 and 1962-63 being Rs. 725 crores and Rs. 738 crores respectively. The *per capita* State income is thus found to have risen from Rs. 309 in 1955-56 to Rs. 338 in 1960-61, the highest being Rs. 363 in 1958-59. Estimates for 1961-62 show a further rise to Rs. 347 with a negligible decline of Re. 1 in 1962-63. The Second Plan period has thus registered a total increase of 9 per cent in the State *per capita* income, a rate of growth which is equivalent to that returned by the Indian Union.

149. The net domestic product at factor cost during a period of 6 years from 1955-56 to 1960-61 shows a rising trend in the State income as a result of the intensive efforts made by the Government and the people to implement the various schemes of development formulated under the successive Five Year Plans. Despite the growth of population at a somewhat higher rate, income per head has shown an increase which would have been still higher, had the growth of numbers not been so high as 2.7 per cent per annum during the past decennium.

SECTION 12

AGRICULTURAL PRODUCTION

Area under Food Crops

150. Rice, wheat, *jowar*, *bajri* and maize are the important cereals among food crops, gram and *tur* among pulses, and groundnut, cotton and tobacco among commercial crops. During the quinquennium 1952-53 to 1956-57, Gujarat had on an average 60 per cent of gross cropped area under food crops and 40 per cent under non-food crops, corresponding percentages for India, as a whole being 76.7 and 23.3 per cent. Thus, non-food crops play a very important part in the agricultural economy of the State, which as will be seen later, have contributed in no small measure to the development of agro-based industries like manufacture of textile, groundnut oil, Vanaspati, etc.

Production of Major Crops

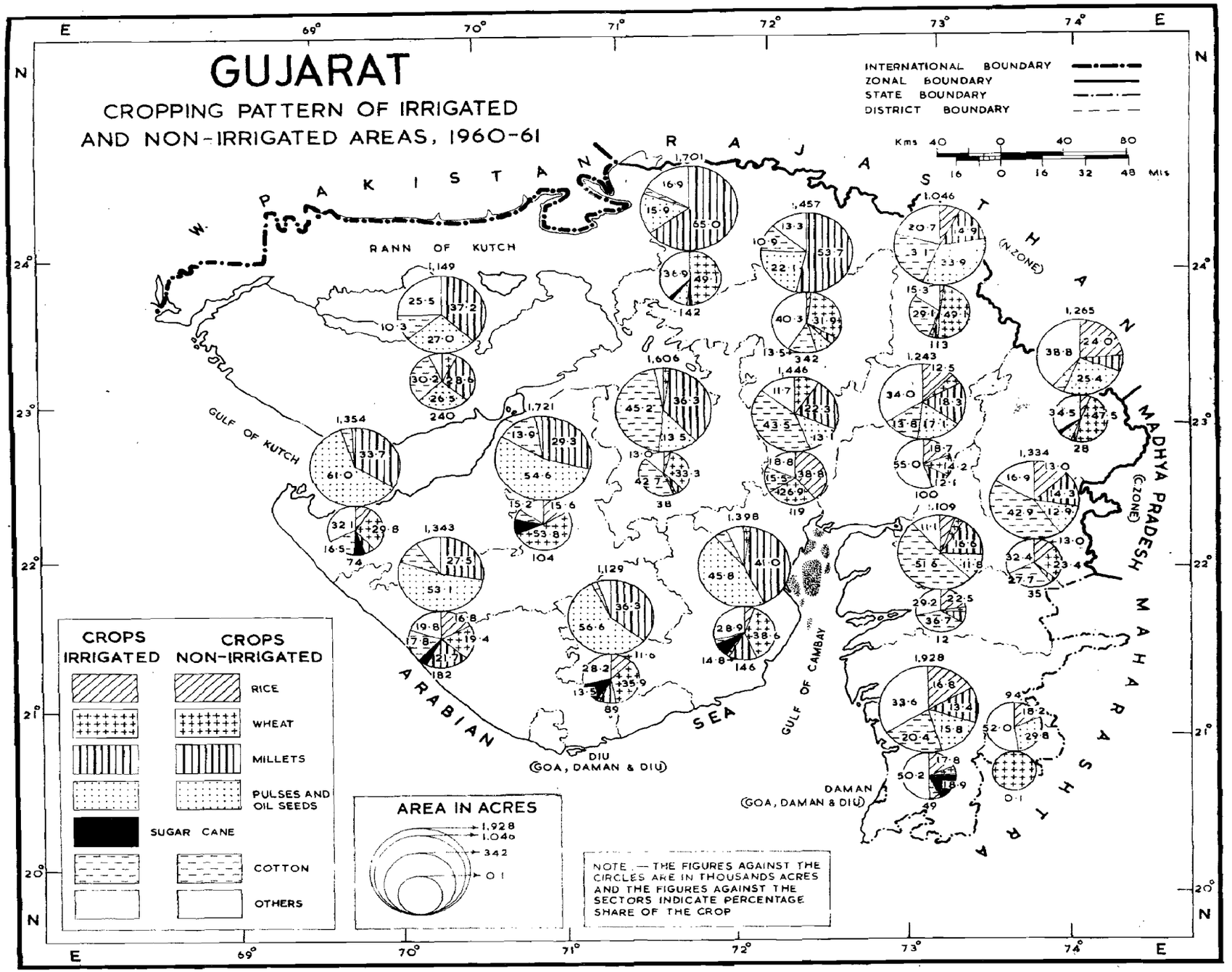
151. Statement XII.47 at the end of this section shows the production of major crops in each of the districts of the State.

While area under rice has more or less remained the same, i.e., 11 to 12 lakh acres, that under wheat has registered a steep rise from 5.31 lakh acres during 1951-52 to 11.97 lakh acres during 1959-60, an increase of 125.4 per cent. Area under *jowar* has shown significant variations by registering an increase in 1952-53 and a decline in the acreage of subsequent years. Similar fluctuations are also noticed in the acreage of pulses. The overall picture, however, is that the area of total foodgrains has shown a rising trend till 1953-54, followed by a decline thereafter. Increase in commercial crops is, however, noteworthy particularly in the area under groundnut, which has almost doubled during the past decennium. Acreage under cotton has also increased but not to the same extent (from about 31 lakh acres to about 42.25 lakh acres). The increase in the acreage under tobacco by 84 per cent is equally noteworthy. These statistics reveal a growing change in the cropping pattern of the State marked by a significant and substantial shift from area under food crops to area under non-food crops.

Yield and Output

152. The production of foodgrains has made notable progress during the past decade when it rose from 15.86 lakh tons in 1951-52 to 24.14 lakh tons in 1959-60.

The Statement XII.48 on the next page shows the agricultural output in the State during the decade 1950-51 to 1960-61.


GUJARAT
CROPPING PATTERN OF IRRIGATED AND NON-IRRIGATED AREAS, 1960-61
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
RAJASTHAN
(N.ZONE)
MADHYA PRADESH
(C.ZONE)
MAHARASHTRA
RANN OF KUTCH
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
DIU
(GOA, DAMAN & DIU)
DAMAN
(GOA, DAMAN & DIU)
CROPS IRRIGATED
CROPS NON-IRRIGATED
RICE
WHEAT
MILLETS
PULSES AND OIL SEEDS
SUGAR CANE
COTTON
OTHERS
AREA IN ACRES
1,928
1,046
342
0·1
NOTE :— THE FIGURES AGAINST THE CIRCLES ARE IN THOUSANDS ACRES AND THE FIGURES AGAINST THE SECTORS INDICATE PERCENTAGE SHARE OF THE CROP

STATEMENT XII.48

Agricultural output, 1950-51 to 1960-61

(Index 1950-51=100) (Figures in hundred tons)

	Name of crop	1950-51		1951-52		1952-53		1953-54		1954-55	
		Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index
	1	2	3	4	5	6	7	8	9	10	11
	Total	**23,442**	**100.00**	**13,958**	**59.54**	**21,380**	**91.20**	**32,126**	**137.04**	**33,809**	**144.22**
1	Rice	3,030	100.00	574	18.94	1,770	58.42	3,792	125.15	3,721	122.81
2	Wheat	2,504	100.00	1,620	64.70	2,271	90.69	2,893	115.54	2,761	110.26
3	Jowar	3,437	100.00	1,840	53.54	3,278	95.37	3,762	109.46	3,414	99.33
4	Bajri	2,722	100.00	2,860	105.07	5,158	189.49	6,494	238.57	6,009	220.76
5	Maize	548	100.00	1,072	195.62	767	139.96	2,199	401.28	1,871	341 42
6	Ragi	567	100.00	272	47.97	337	59.44	589	103.88	665	117.28
7	Barley	76	100.00	47	61.84	68	89.47	70	92.11	65	85.53
8	Other cereals	1,538	100.00	1,271	82.64	1,640	106.63	2,614	169.96	2,304	149.80
	Total cereals	14,422	100.00	9,556	66.26	15,289	106.01	22,413	155.41	20,810	144.29
9	Gram	389	100.00	51	13.11	183	47.04	325	83.55	534	137.28
10	Tur	334	100.00	249	74.55	243	72.75	452	135.33	463	138.62
11	Other pulses	957	100.00	467	48.80	582	60.82	1,154	120.59	1,168	122.05
	Total pulses	1,680	100.00	767	45.65	1,008	60.00	1,931	114.94	2,165	128.87
12	Sugar-cane*	719	100.00	535	74.41	444	61.75	486	67.59	674	93.74
13	Chillies	53	100.00	47	88.68	32	60.38	N.A.	N.A.	76	143.40
14	Potatoes	156	100.00	95	60.90	179	114.74	141	90.38	219	140.38
	Total food crops	*17,030*	*100.00*	*11,000*	*64.59*	*16,952*	*99.54*	*24,971*†	*146.63*†	*23,944*	*140.60*
15	Groundnut	3,820	100.00	1,572	41.15	2,378	62.25	4,372	114.45	6,447	168.77
16	Castor	169	100.00	114	67.46	169	100.00	331	195.86	333	197.04
17	Sesamum	468	100.00	205	43.80	293	62.61	429	91.67	421	89.96
18	Rape and mustard	142	100.00	114	80.28	63	44.37	94	66.20	160	112.68
	Total oil-seeds	4,599	100.00	2,005	43.60	2,903	63.12	5,226	113.63	7,361	160.06
19	Cotton	*1,297*	*100.00*	*716*	*55.20*	*1,084*	*83.58*	*1,443*	*111.26*	*2,137*	*164.76*
20	Tobacco	516	100.00	237	45.93	441	85.47	486	94.19	367	71.12
	Total non-food crops	*6,412*	*100.00*	*2,958*	*46.13*	*4,428*	*69.06*	*7,155*	*111.59*	*9,865*	*153.85*

	Name of crop	1955-56		1956-57		1957-58		1958-59		1959-60		1960-61	
		Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index
		12	13	14	15	16	17	18	19	20	21	22	23
	Total	**25,889**	**110.44**	**32,710**	**139.54**	**29,362**	**125.25**	**42,934**	**183.15**	**31,614**	**134.86**	**35,612**	**151.92**
1	Rice	2,592	85.54	3,872	127.79	2,149	70.92	4,256	140.46	4,674	154.26	2,871	94.75
2	Wheat	3,211	128.23	2,829	112.98	1,990	79.47	3,138	125.32	3,446	137.62	2,673	106.75
3	Jowar	2,863	83.30	3,891	113.21	3,057	88.94	3,839	111.70	2,808	81.70	2,181	63.46
4	Bajri	3,848	141.37	4,017	147.58	5,776	212.20	6,948	255.25	2,587	95.04	4,717	173.29
5	Maize	1,725	314.78	787	143.61	1,966	358.76	2,652	483.94	940	171.53	2,673	487.77
6	Ragi	509	89.77	579	102.12	491	86.60	743	131.04	660	116.40	614	108.29
7	Barley	54	71.05	53	69.74	35	46.05	39	51.32	42	55.26	23	30.26
8	Other cereals	1,530	99.48	1,398	90.90	991	64.43	1,609	104.62	1,254	81.53	1,167	75.88
	Total cereals	16,332	113.24	17,426	120.83	16,455	114.10	23,224	161.03	16,411	113.79	16,919	117.31
9	Gram	635	163.24	697	179.18	125	32.13	587	150.90	770	197.94	188	48.33
10	Tur	388	116.17	343	102.69	305	91.32	418	125.15	376	112.57	370	110.78
11	Other pulses	967	101.04	1,159	121.11	761	79.52	1,099	114.84	1,069	111.70	1,108	115.78
	Total pulses	1,990	118.45	2,199	130.89	1,191	70.89	2,104	125.24	2,215	131.85	1,666	99.17
12	Sugar-cane*	682	94.85	842	117.11	805	111.96	739	102.78	951	132.27	1,279	177.89
13	Chillies	60	113.21	148	279.25	78	147.17	102	192.45	135	254.72	189	356.60
14	Potatoes	177	113.46	148	94.87	108	69.23	143	91.67	158	101.28	55	35.26
	Total food crops	*19,241*	*112.98*	*20,763*	*121.92*	*18,637*	*109.43*	*26,312*	*154.50*	*19,870*	*116.68*	*20,108*	*118.07*
15	Groundnut	3,355	87.83	8,715	228.14	8,278	216.70	12,903	337.77	9,268	242.62	11,945	312.70
16	Castor	358	211.83	354	209.47	249	147.34	310	183.43	258	152.66	168	99.41
17	Sesamum	295	63.03	235	50.21	211	45.09	269	57.48	173	36.97	167	35.68
18	Rape and mustard	133	93.66	242	170.42	143	100.70	210	147.89	237	166.90	116	81.69
	Total oil-seeds	4,141	90.04	9,546	207.57	8,881	193.11	13,692	297.72	9,936	216.05	12,396	269.54
19	Cotton	*2,011*	*155.05*	*1,859*	*143.33*	*1,561*	*120.35*	*2,216*	*170.86*	*1,236*	*95.30*	*2,470*	*190.44*
20	Tobacco	496	96.12	542	105.04	283	54.84	714	138.37	572	110.85	638	123.64
	Total non-food crops	*6,648*	*103.68*	*11,947*	*186.32*	*10,725*	*167.26*	*16,622*	*259.23*	*11,744*	*183.16*	*15,504*	*241.80*

N.A. = Not available

* Production in terms of *gur*

† Excludes Chillies for which figures are not available.

Source:
Director of Agriculture, Gujarat State

Among cereals, production of rice, wheat and *jowar* fluctuated during the whole decade. They did not clearly indicate any tendency either of decrease or increase. However, increase in the production of *bajri* and maize was more or less sustained during the whole decade. Index of production of *bajri* reached the highest level of 255.25 in 1958-59. The year in which *bajri* production was the lowest was 1959-60, when the index was only 95.04. The production of maize increased to 267,300 tons in 1960-61 as against 54,800 tons in 1950-51 and registered an increase of 387.77 per cent. After initial fall in the year 1951-52, increase in the production of gram, one of the two important pulses, was sustained during the decade under reference, except a steep decline in the years 1957-58 and 1960-61. In the case of *tur*, the trend of production was fluctuating, its index of production being 110.78 at the end of the decade, i.e., in 1960-61. Taking the foodgrains as a whole, the increase in production at the end of the decade was of the order of 17 per cent. As compared to the rate of production of foodgrains, that revealed by all the important commercial crops of the State was much faster, as seen from the production of groundnut, cotton and tobacco which increased by 212.70, 90.44 and 23.64 per cent respectively by the end of the decade.

153. The State Bureau of Economics and Statistics has made a special study of production of some of the important crops in Gujarat from 1951-52 to 1959-60, which has been further supplemented by a study on the operational dimensions of food problems in Gujarat State. The results worked out in these studies are helpful in estimating the rate of growth of agricultural commodities as also in determining trends of surpluses and deficits revealed by the different districts of Gujarat.

154. Reviewing the figures of production, it is observed:

> "The significant point is that although acreage under foodgrains has somewhat decreased during the nine year period under review the outturn of foodgrains has increased. This is partly achieved by higher yields of foodgrain crops and partly from a larger proportion of acreage under foodgrains being under rice and wheat which have higher yields than *jowar* and *bajri*.
>
> Eventhough wheat and rice occupy far less area than *jowar* and *bajri*, their production is of the same order as that of *jowar* and *bajri* because of their high yields. *Bajri*, *jowar* and rice each contribute roughly one-fifth of the total foodgrains production in the State, while wheat contributes only about 14 per cent of the total foodgrains production.
>
> The production of rice registered a steep increase from 0.59 lakh tons in 1951-52 to 4.37 lakh tons in 1958-59. During 1959-60 the production was 3.76 lakh tons. This was achieved without any substantial addition to the acreage under rice. The production of wheat also showed an increasing trend during the period and increased from 1.55 lakh tons during 1951-52 to 3.01 lakh tons during 1959-60. This increase was achieved mainly by more extensive acreage under wheat. The production of *jowar* varied considerably according to season and varied between 1.81 lakh tons and 3.98 lakh tons. Similarly production of *bajri* varied between 2.61 lakh tons and 6.77 lakh tons. The production of pulses also varied considerably according to seasonal conditions between 0.75 lakh tons and 2.30 lakh tons.
>
> Among cash crops, production of cotton and groundnut is sizeable. Groundnut has shown a steadily increasing trend from 1.42 lakh tons during 1951-52 to 11.25 lakh tons during 1958-59. The outturn declined to 7.34 lakh tons during 1959-60. This steady increase in the production is due to increase in both the area under groundnut and the increasing yields per acre during the period under study. The production of cotton almost doubled during the period increasing from 6.85 lakh bales during 1951-52 to 12.97 lakh bales during 1958-59. During 1959-60 the production was 8.04 lakh bales. The production of tobacco varied between 0.22 lakh tons and 0.51 lakh tons. Over the period from 1951-52 to 1959-60 the production increased by 109 per cent from 0.22 lakh tons to 0.46 lakh tons."[1]

1. The Analysis of production of some important crops in Gujarat, 1951-52 to 1959-60, *Quarterly Bulletin*, Bureau of Economics and Statistics, January-March 61, Vol. I, p. 3

155. The following tables on regression analysis published in the Bulletin of Economics and Statistics will be useful in giving a comparative idea of the area under production and yield per acre in Gujarat.

STATEMENT XII.49

Values of regression coefficients for area, production and yield per acre

Crop	Area	Production	Yield per acre
1	2	3	4
Rice . .	0.30	46.75	43.70
Wheat . .	10.12	7.60	—1.07
Jowar . .	—2.68	1.17	6.00
Bajri . .	—3.87	2.75	6.40
Total cereals .	*—2.08*	*4.75*	*9.20*
Total pulses .	*—6.30*	*7.30*	*25.05*
Total foodgrains	*—2.62*	*5.57*	*10.53*
Tobacco .	11.92	9.17	—1.17
Groundnut .	12.18	63.42	23.27
Total oil-seeds .	*21.47*	*69.89*	*55.95*
Cotton . .	7.08	5.10	2.08

The regression coefficients as percentages of averages for area, production and yield per acre are shown in the statement that follows.

STATEMENT XII.50

Regression coefficients as percentage of average (b/y x100)

Crop	Area	Production	Yield per acre
1	2	3	4
Rice . .	0.3	9.5	9.7
Wheat . .	5.8	4.6	—1.1
Jowar . .	—2.8	0.7	3.3
Bajri . .	—3.9	1.5	3.6
Total cereals .	*—2.0*	*2.5*	*5.0*
Total pulses .	*—7.0*	*3.3*	*9.9*
Total foodgrains	*—2.6*	*2.9*	*5.6*
Tobacco .	6.1	5.1	—1.3
Groundnut .	9.2	16.9	8.7
Total oil-seeds .	*21.3*	*33.5*	*25.9*
Cotton . .	5.7	4.3	1.9

Source:

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. I, January-March 1961, p. 4

156. The various trends emerging from these equations are analysed as under.

"It may thus be seen that the production of all crops shows an increasing trend. In the case of wheat and tobacco there is a slight declining trend in the yield per acre but the value of regression coefficient does not appear to be significantly large. In all other cases the yield per acre has exhibited an increasing trend. The regression coefficient for production is highest for oil-seeds and large for groundnut, rice and pulses. The area under the crop has shown increasing trend for rice, wheat, tobacco, groundnut, oil-seeds and cotton though in case of rice the value of regression coefficient is very small. The areas under *jowar*, *bajri*, cereals, pulses and foodgrains have decreasing trends. But the regression coefficients of these are not very high."

"The above figures show that in the case of rice, production has increased primarily due to increase in yield rates rather than increase in the area. In the case of wheat, however, the increase in the area is the main factor contributing to increase in production. In the case of groundnut and all oil-seeds, both increase in area and in the yield have contributed to the steep increase in production.

In the case of area, the rate of increase is highest for oil-seeds, and then for groundnut, tobacco, wheat and cotton in that order. Pulses show the highest rate of decrease in the area. The rates of yields have been high for oil-seeds, pulses, rice and groundnuts in that order. The differential rates of changes in area and yield are reflected ultimately in the rates of changes in production. These are high in the case of oil-seeds, groundnut, rice, tobacco, wheat and cotton in that order."[1]

Analysis of Production in the Districts of the State

157. Statement XII.51 on the next page will be helpful in studying the production and consumption surplus/ deficit of cereals in the State.

1. The Analysis of Production of some important crops in Gujarat, 1951-52 to 1959-60, *Quarterly Bulletin*, Bureau of Economics and Statistics, JanuaryMarch 61, Vol. I, p. 5

STATEMENT XII.51

Indicators of district-wise area, production, consumption and surplus/deficit of cereals in the State for the triennium, 1955–58

(Arranged in descending order of indicator of surplus)

Base: Area: 214,904 thousand acres=1,000
Production: 48,175 thousand tons=1,000

Sl. No.	District	Area	Production	Consumption	Surplus or deficit	Surplus or deficit per cent	Surplus per acre in pounds	Yield per acre in pounds	Surplus as per cent consumption	Nature of trend of surplus	Nature of year to year variation of surplus
1	2	3	4	5	6	7	8	9	10	11	12
	Low surplus group										
1	Panchmahals	3.83	3.68	2.57	+1.11	0.74	166	550	43.19	P	E
	Very low surplus/ deficit group										
2	Mehsana	5.97	3.45	3.29	+0.16	0.11	15	330	4.86	P	D
3	Amreli	1.50	0.72	0.71	+0.01	0.01	4	275	1.41	P	C
4	Dangs	0.11	0.12	0.11	+0.01	0.01	52	613	9.09	S	C
5	Jamnagar	3.33	1.26	1.28	—0.02	0.01	3	217	1.56	P	C
6	Banaskantha	4.01	1.52	1.56	—0.04	0.02	57	217	2.56	P	C
7	Sabarkantha	2.09	1.46	1.53	—0.07	0.04	19	398	4.58	P	E
8	Surendranagar	2.97	0.68	1.11	—0.43	0.22	83	131	38.74	P	D
9	Broach	1.60	1.14	1.58	—0.44	0.23	157	410	27.85	S	D
10	Bhavnagar	4.39	1.82	2.28	—0.46	0.24	60	237	20.18	P	E
11	Kutch	2.56	0.77	1.27	—0.50	0.26	112	172	39.37	P	E
12	Rajkot	4.33	1.83	2.34	—0.51	0.27	67	242	21.79	P	E
13	Surat	2.74	3.52	4.09	—0.57	0.30	119	736	13.94	P	E
	Low deficit group										
14	Kaira	3.24	2.84	3.60	—0.76	0.40	134	502	21.11	P	C
15	Junagadh	3.23	1.47	2.24	—0.77	0.40	136	260	34.38	S	E
16	Baroda	2.27	1.78	2.67	—0.89	0.47	224	448	33.33	S	E
	High deficit group										
17	Ahmedabad	3.11	1.23	4.00	—2.78	1.45	512	221	69.33	D	D

NOTE:
The following abbreviations have been used under cols. 11 and 12 :—
Col. 11—P=Progressive, S=Stationary, D=Declining
Col. 12—C=Confident surplus, D=Diffident surplus, E=Erratic surplus

Source:
Quarterly Bulletin, Bureau of Economics and Statistics Vol. I, January-March, 1961, pp. 18-19

In view of the fact that the productivity of land in Gujarat in terms of the gross value of output per acre of cropped area in 1955-56 is only about two-thirds of the national average, coupled with the further fact that technical crops are being increasingly favoured on account of their greater yield and higher prices, the State of Gujarat shows a striking deficit in the production of foodgrains which has been estimated to be of the order of 14.37 lakh tons in the year 1960-61. This result appears in spite of the fact that the yield per acre has been rising substantially owing to the improvement in agriculture during the past decade. The foregoing statistics point out that there is not a single district which has returned high surplus or even medium surplus, and the only district which has low surplus is the Panchmahals as against Mehsana, Amreli and the Dangs, which have been found to be very low surplus areas. In the rest of the districts the percentage of deficit varies and is the highest in the industrialised district of Ahmedabad (1.45 per cent). Thus, all the districts except 4 are deficit in the production of foodgrains. Districts which have shown progressive tendencies in food production are the Panchmahals, Mehsana, Amreli, Jamnagar, Banaskantha, Sabarkantha, Surendranagar,

Bhavnagar, Kutch, Rajkot, Surat, and Kaira. Among the remainder, the Dangs, Broach, Junagadh and Baroda are stationary, Ahmedabad being the only district which has shown a declining trend. It is also interesting to note that surplus or deficit areas have no correlation to yield, high or low. For, a district like Surat which has shown the highest yield per acre (736 lbs.) in the State falls under a very small deficit group, whereas the Panchmahals in low surplus group has a comparatively lower yield per acre (550 lbs.).

158. The following table compares the production of cereals and non-cereals in the State and each of its districts for the years 1951 and 1961 expressed in terms of 1,000 of rural and 1,000 of total population.

STATEMENT XII.52

Production of major food crops per 1,000 rural population and per 1,000 total population in the State and districts, 1951–61

(In tons)

State/District		Crop	1951		1961		Difference between 1951-61	Difference between 1951-61
			Rural	Total	Rural	Total	Rural	Total
1		2	3	4	5	6	7	8
GUJARAT	**(a)**	**Cereals**	**118**	**89**	**110**	**82**	**— 8**	**— 7**
	(b)	**Non-cereals**	**21**	**16**	**21**	**15**	**0**	**— 1**
1 Jamnagar	(a)	Cereals	118	80	83	53	—35	—27
	(b)	Non-cereals	24	16	24	16	0	0
2 Rajkot	(a)	Cereals	148	91	81	49	—67	—42
	(b)	Non-cereals	34	21	33	20	— 1	— 1
3 Surendranagar	(a)	Cereals	105	74	61	44	—44	—30
	(b)	Non-cereals	2	1	4	3	+ 2	+ 2
4 Bhavnagar	(a)	Cereals	101	69	101	69	0	0
	(b)	Non-cereals	19	13	44	30	+25	+17
5 Amreli	(a)	Cereals	56	45	133	105	+77	+60
	(b)	Non-cereals	19	15	39	31	+20	+16
6 Junagadh	(a)	Cereals	72	50	75	54	+ 3	+ 4
	(b)	Non-cereals	25	18	16	12	— 9	— 6
7 Kutch	(a)	Cereals	59	49	91	73	+32	+24
	(b)	Non-cereals	14	11	46	37	+32	+26
8 Banaskantha	(a)	Cereals	138	129	136	127	— 2	— 2
	(b)	Non-cereals	23	22	36	33	+13	+11
9 Sabarkantha	(a)	Cereals	144	134	142	133	— 2	— 1
	(b)	Non-cereals	16	15	5	4	—11	—11
10 Mehsana	(a)	Cereals	137	114	119	98	—18	—16
	(b)	Non-cereals	28	23	11	9	—17	—14
11 Ahmedabad	(a)	Cereals	158	66	78	30	—80	—36
	(b)	Non-cereals	12	5	5	2	— 7	— 3
12 Kaira	(a)	Cereals	118	96	106	86	—12	—10
	(b)	Non-cereals	12	10	7	5	— 5	— 5
13 Panchmahals	(a)	Cereals	148	132	193	173	+45	+41
	(b)	Non-cereals	28	25	17	15	—11	—10
14 Baroda	(a)	Cereals	95	72	98	72	+ 3	0
	(b)	Non-cereals	24	18	14	10	—10	— 8
15 Broach	(a)	Cereals	95	80	62	52	—33	—28
	(b)	Non-cereals	33	28	14	12	—19	—16
16 Surat	(a)	Cereals	121	98	115	90	— 6	— 8
	(b)	Non-cereals	20	16	35	27	+15	+11
17 Dangs	(a)	Cereals	104	104	176	176	+72	+72
	(b)	Non-cereals	17	17	32	32	+15	+15

Source:

Director of Agriculture, Gujarat State

Despite the fact that the overall production and yield per acre have risen appreciably during the past decennium, production has not been able to keep pace with the increase in population, as disclosed by the figures of production of cereals per 1,000 of the rural population, which has gone down from 118 tons in 1951 to 110 tons in 1961, corresponding decline per 1,000 of total population being from 89 to 82 tons. Non-cereals, however, have maintained the same position both as regards rural and total population, though there is a small decline of 1 ton per 1,000 of total population in 1961. Amreli, Kutch and the Dangs are the three districts of the State which have shown increase in the production of cereals and non-cereals, which has not only kept pace with the increase in population but has also registered noteworthy increases in their production during the past decennium. Increase in cereals has also taken place in Junagadh, the Panchmahals and Baroda but increase in non-cereals has taken place only in Surendranagar, Bhavnagar, Banaskantha and Surat. Bhavnagar has maintained *status quo* as regards its cereal production both in relation to its rural as well as total population. These figures also bear out in a general way the trends of surplus and deficit noticed in the preceding paragraphs and revealed by the special survey undertaken by the Bureau of Economics and Statistics.

159. The total production of cereals in the State, which was estimated at 1,442,200 tons in 1951 rose to 1,691,900 tons in 1961, registering an increase of 17.31 per cent during the decade. The production of total non-cereals rose from 260,800 tons to 318,900 tons, that is to say, by 22.28 per cent during the same period. Compared with increases in rural and total population of the State which are found to be 24.90 and 26.88 per cent respectively between 1951–61, it is clearly established that the production of food crops and non-food crops has not been able to keep pace with the growth of numbers during the past decennium.

GENERAL

160. The foregoing analysis shows that though irrigation facilities have not been put to the maximum use, the production of foodgrains has increased and the gross value of farm output has very nearly doubled during the past decade. While the State is substantially deficit in the matter of foodgrains, it is in the production of commercial crops like cotton, groundnut and tobacco that it occupies an important place in the agricultural economy of the country. While increase in the agricultural production was partially due to the changes in the cropping pattern and increase in area under cultivation, the shift towards groundnut and cotton and higher yield per acre have made very significant contribution to the raising of output brought by improvement in farm practices and mechanisation.

161. Distributing the area of the State into different zones of high or low productivity, it is noticed that Mainland Gujarat with the exception of Banaskantha and Ahmedabad has returned a comparatively higher yield per acre than Peninsular Gujarat, where productivity as revealed by the figures of output per acre is comparatively low. The various schemes which are being implemented during the Third Five Year Plan should show further increase in the output, which is still much less than that for the country as a whole.

STATEMENT XII.47

Production of major crops in districts

(Base: 1950-51=100)

(Figures in hundred tons)

Major crops	1950-51		1955-56		1960-61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
JAMNAGAR DISTRICT						
Total	*1,106*	*100.00*	*1,017*	*91.95*	*1,972*	*178.30*
Food crops	593	100.00	579	97.64	572	96.46
Rice	31	100.00	12	38.71	22	70.97
Wheat	98	100.00	231	235.71	96	97.96
Jowar	154	100.00	82	53.25	73	47.40
Bajri	209	100.00	81	38.76	252	120.57
Other cereals	..	..	..	..	..	..
Tur	..	..	..	..	..	..
Other pulses	17	100.00	55	323.53	6	35.29
Other food crops	84	100.00	118	140.48	123	146.43
Non-food crops	513	100.00	438	85.38	1,400	272.90
Groundnut	458	100.00	351	76.64	1,372	299.56
Other oil-seeds	48	100.00	75	156.25	7	14.58
Tobacco	..	..	..	..	..	..
Cotton	7	100.00	12	171.43	21	300.00
RAJKOT DISTRICT						
Total	*1,987*	*100.00*	*1,833*	*92.25*	*3,111*	*156.57*
Food crops	1,041	100.00	1,091	104.80	841	80.79
Rice	88	100.00	25	28.41	56	63.64
Wheat	241	100.00	277	114.94	230	95.44
Jowar	207	100.00	269	129.95	82	39.61
Bajri	308	100.00	325	105.52	228	74.03
Other cereals	1	100.00	..	0	2	200.00
Tur	..	..	..	..	..	..
Other pulses	26	100.00	26	100.00	15	57.69
Other food crops	170	100.00	169	99.41	228	134.62
Non-food crops	946	100.00	742	78.44	2,270	239.95
Groundnut	859	100.00	647	75.32	2,162	251.69
Other oil-seeds	27	100.00	15	55.56	1	3.70
Tobacco	..	..	..	..	..	..
Cotton	60	100.00	80	133.33	107	178.33
SURENDRANAGAR DISTRICT						
Total	*646*	*100.00*	*570*	*88.24*	*947*	*146.59*
Food crops	383	100.00	298	77.81	306	79.90
Rice	5	100.00	1	20.00	3	60.00
Wheat	81	100.00	138	170.37	132	162.96
Jowar	107	100.00	70	65.42	46	42.99
Bajri	182	100.00	78	42.86	105	57.69
Other cereals	1	100.00	..	0	3	300.00
Tur	..	..	..	..	..	..
Other pulses	4	100.00	8	200.00	10	250.00
Other food crops	3	100.00	3	100.00	7	233.33
Non-food crops	263	100.00	272	103.42	641	243.73
Groundnut	26	100.00	41	157.69	332	1,276.92
Other oil-seeds	22	100.00	13	59.09	8	36.36
Tobacco	..	..	..	..	..	..
Cotton	215	100.00	218	101.40	301	140.00

Source:

Director of Agriculture, Gujarat State

STATEMENT XII.47-*contd.*

Production of major crops in districts

(Figures in hundred tons)

Major crops	1950-51		1955-56		1960-61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
BHAVNAGAR DISTRICT						
Total	*1,333*	*100.00*	*1,354*	*101.58*	*2,504*	*187.85*
Food crops	724	100.00	761	105.11	1,112	153.57
Rice	43	100.00	9	20.93	20	46.51
Wheat	152	100.00	281	184.87	190	125.00
Jowar	203	100.00	131	64.53	126	62.07
Bajri	209	100.00	204	97.61	438	209.57
Other cereals	..	..	1	100.00	..	..
Tur	..	..	..	..	..	..
Other pulses	7	100.00	26	371.43	18	257.14
Other food crops	110	100.00	109	99.09	320	290.91
Non-food crops	609	100.00	593	97.37	1,392	228.57
Groundnut	473	100.00	483	102.11	1,335	282.34
Other oil-seeds	98	100.00	45	45.92	14	14.29
Tobacco	..	..	..	..	..	..
Cotton	38	100.00	65	171.05	43	113.15
AMRELI DISTRICT						
Total	*641*	*100.00*	*668*	*104.21*	*2,525*	*393.92*
Food crops	321	100.00	494	153.89	904	281.62
Rice	19	100.00	4	21.05	36	189.47
Wheat	57	100.00	82	143.86	125	219.30
Jowar	43	100.00	38	88.37	160	372.09
Bajri	120	100.00	251	209.17	377	314.17
Other cereals	2	100.00	2	100.00	2	100.00
Tur	..	..	..	..	..	..
Other pulses	17	100.00	30	176.47	12	70.59
Other food crops	63	100.00	87	138.10	192	304.76
Non-food crops	320	100.00	174	54.38	1,621	506.56
Groundnut	283	100.00	124	43.82	1,570	554.77
Other oil-seeds	29	100.00	46	158.62	40	137.93
Tobacco	..	..	..	..	..	..
Cotton	8	100.00	4	50.00	11	137.50
JUNAGADH DISTRICT						
Total	*1,188*	*100.00*	*1,342*	*112.96*	*3,723*	*313.38*
Food crops	673	100.00	792	117.68	815	121.09
Rice	81	100.00	39	48.15	110	135.80
Wheat	68	100.00	120	176.47	194	285.29
Jowar	64	100.00	159	248.44	78	121.88
Bajri	284	100.00	388	136.62	285	100.35
Other cereals	1	100.00	..	0	2	200.00
Tur	..	..	..	..	..	..
Other pulses	3	100.00	4	133.33	7	233.33
Other food crops	172	100.00	82	47.67	139	80.81
Non-food crops	515	100.00	550	106.79	2,908	564.66
Groundnut	443	100.00	478	107.90	2,801	355.46
Other oil-seeds	14	100.00	10	71.43	5	35.71
Tobacco	..	..	..	..	..	..
Cotton	58	100.00	62	106.89	102	175.86

STATEMENT XII.47-*contd.*

Production of major crops in districts

(Figures in hundred tons)

Major crops	1950-51		1955-56		1960-61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
KUTCH DISTRICT						
Total	*368*	*100.00*	*591*	*160.60*	*935*	*254.07*
Food crops	344	100.00	507	147.38	771	224.13
Rice	..	..	..	..	..	..
Wheat	30	100.00	118	393.33	85	283.33
Jowar	59	100.00	92	155.93	21	35.59
Bajri	177	100.00	117	66.10	399	225.42
Other cereals	13	100.00	14	107.69	5	38.46
Tur	..	..	..	..	..	..
Other pulses	49	100.00	149	304.08	244	497.96
Other food crops	16	100.00	17	106.25	17	106.25
Non-food crops	24	100.00	84	350.00	164	683.33
Groundnut	11	100.00	30	272.73	66	600.00
Other oil-seeds	6	100.00	26	433.33	37	616.67
Tobacco	..	..	..	..	..	..
Cotton	7	100.00	28	400.00	61	871.42
BANASKANTHA DISTRICT						
Total	*1,242*	*100.00*	*1,473*	*118.60*	*1,725*	*138.89*
Food crops	1,166	100.00	1,329	113.98	1,592	136.94
Rice	6	100.00	6	100.00	11	183.33
Wheat	136	100.00	212	155.88	253	186.03
Jowar	279	100.00	195	69.89	149	53.41
Bajri	440	100.00	517	117.50	712	161.82
Other cereals	136	100.00	136	100.00	137	100.74
Tur	1	100.00	2	200.00	6	600.00
Other pulses	111	100.00	142	127.93	253	227.93
Other food crops	57	100.00	119	208.77	71	124.56
Non-food crops	76	100.00	144	189.47	133	175.00
Groundnut	..	..	..	..	46	..
Other oil-seeds	74	100.00	142	191.89	81	109.46
Tobacco	1	100.00	1	100.00	1	100.00
Cotton	1	100.00	1	100.00	5	500.00
SABARKANTHA DISTRICT						
Total	*1,610*	*100.00*	*1,419*	*88.14*	*2,240*	*139.13*
Food crops	1,022	100.00	898	87.87	1,262	123.48
Rice	197	100.00	48	24.37	53	26.90
Wheat	189	100.00	213	112.70	222	117.46
Jowar	98	100.00	70	71.43	17	17.35
Bajri	41	100.00	111	270.73	171	417.07
Other cereals	395	100.00	363	91.90	758	191.90
Tur	4	100.00	2	50.00	3	75.00
Other pulses	79	100.00	71	89.87	20	25.32
Other food crops	19	100.00	20	105.26	18	94.74
Non-food crops	588	100.00	521	88.61	978	166.33
Groundnut	419	100.00	300	71.60	794	189.50
Other oil-seeds	97	100.00	35	36.08	15	15.46
Tobacco	4	100.00	1	25.00	..	0
Cotton	68	100.00	185	272.06	169	248.53

STATEMENT XII.47-*contd.*

Production of major crops in districts

(Figures in hundred tons)

Major crops	1950-51		1955-56		1960-61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
MEHSANA DISTRICT						
Total	*2,227*	*100.00*	*2,618*	*117.55*	*2,221*	*99.73*
Food crops	1,903	100.00	2,279	119.75	1,798	94.48
Rice	51	100.00	53	103.92	12	23.53
Wheat	490	100.00	528	107.76	501	102.24
Jowar	523	100.00	431	82.41	177	33.84
Bajri	364	100.00	834	229.12	885	243.13
Other cereals	157	100.00	168	107.01	76	48.41
Tur	26	100.00	27	103.85	15	57.69
Other pulses	279	100.00	207	74.19	79	28.32
Other food crops	13	100.00	31	238.46	53	407.69
Non-food crops	324	100.00	339	104.63	423	130.56
Groundnut	9	100.00	12	133.33	130	1,444.44
Other oil-seeds	189	100.00	242	128.04	158	83.60
Tobacco	49	100.00	18	36.73	20	40.82
Cotton	77	100.00	67	87.01	115	149.35
AHMEDABAD DISTRICT						
Total	*1,501*	*100.00*	*1,378*	*91.81*	*1,358*	*90.47*
Food crops	1,181	100.00	1,028	87.04	715	60.54
Rice	221	100.00	82	37.10	128	57.92
Wheat	461	100.00	490	106.29	323	70.07
Jowar	212	100.00	166	78.30	30	14.15
Bajri	108	100.00	184	170.37	164	151.85
Other cereals	98	100.00	35	35.71	28	28.57
Tur	12	100.00	7	58.33	4	33.33
Other pulses	42	100.00	30	71.43	10	23.81
Other food crops	27	100.00	34	125.93	28	103.70
Non-food crops	320	100.00	350	109.37	643	200.94
Groundnut	40	100.00	59	147.50	225	562.50
Other oil-seeds	81	100.00	46	56.79	17	20.99
Tobacco	26	100.00	5	19.23	5	19.23
Cotton	173	100.00	240	138.73	396	228.90
KAIRA DISTRICT						
Total	*2,344*	*100.00*	*2,587*	*110.37*	*2,865*	*122.23*
Food crops	1,706	100.00	1,848	108.32	1,800	105.51
Rice	531	100.00	360	67.80	350	65.91
Wheat	211	100.00	206	97.63	188	89.10
Jowar	28	100.00	26	92.86	28	100.00
Bajri	183	100.00	593	324.04	555	303.28
Other cereals	594	100.00	497	83.67	572	96.30
Tur	79	100.00	83	105.06	51	64.56
Other pulses	54	100.00	56	103.70	21	38.89
Other food crops	26	100.00	27	103.85	35	134.62
Non-food crops	638	100.00	739	115.83	1,065	166.93
Groundnut	205	100.00	200	97.56	513	250.24
Other oil-seeds	16	100.00	36	225.00	21	131.25
Tobacco	367	100.00	382	221.95	435	118.53
Cotton	50	100.00	111	222.00	96	192.00

STATEMENT XII.47-*contd.*

Production of major crops in districts

(Figures in hundred tons)

Major crops	1950–51		1955-56		1960–61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
PANCHMAHALS DISTRICT						
Total	*2,194*	*100.00*	*3,550*	*161.80*	*3,283*	*149.64*
Food crops	1,780	100.00	3,057	171.74	2,763	155.22
Rice	625	100.00	574	91.84	339	54.24
Wheat	116	100.00	143	123.28	61	52.59
Jowar	81	100.00	60	74.07	43	53.09
Bajri	38	100.00	58	152.63	40	105.26
Other cereals	633	100.00	1,787	282.31	2,054	324.49
Tur	35	100.00	41	117.14	48	137.14
Other pulses	244	100.00	382	156.56	160	65.57
Other food crops	8	100.00	12	150.00	18	225.00
Non-food crops	414	100.00	493	119.08	520	125.60
Groundnut	358	100.00	422	117.88	462	129.05
Other oil-seeds	33	100.00	25	75.76	18	54.55
Tobacco	10	100.00	8	80.00	11	110.00
Cotton	13	100.00	38	292.31	29	223.08
BARODA DISTRICT						
Total	*1,479*	*100.00*	*1,580*	*106.83*	*2,089*	*141.24*
Food crops	1,099	100.00	1,062	96.63	1,246	113.38
Rice	132	100.00	297	225.00	278	210.61
Wheat	35	100.00	30	85.71	13	37.14
Jowar	332	100.00	301	90.66	448	134.94
Bajri	38	100.00	56	147.37	65	171.05
Other cereals	340	100.00	248	72.94	299	87.94
Tur	71	100.00	86	121.13	86	121.13
Other pulses	69	100.00	37	53.62	41	59.42
Other food crops	82	100.00	7	8.54	16	19.51
Non-food crops	380	100.00	518	136.32	843	221.84
Groundnut	131	100.00	83	63.36	275	209.92
Other oil-seeds	11	100.00	9	81.82	7	63.64
Tobacco	51	100.00	75	147.06	163	319.61
Cotton	187	100.00	351	187.70	398	212.83
BROACH DISTRICT						
Total	*1,030*	*100.00*	*1,118*	*108.54*	*1,086*	*105.44*
Food crops	775	100.00	766	98.84	576	74.32
Rice	71	100.00	124	174.65	137	192.96
Wheat	104	100.00	101	97.12	22	21.15
Jowar	314	100.00	292	92.99	217	69.11
Bajri	18	100·00	42	233.33	34	188.89
Other cereals	68	100.00	78	114.71	57	83.82
Tur	36	100.00	37	102.78	42	116.67
Other pulses	156	100.00	89	57.05	59	37.82
Other food crops	8	100.00	3	37.50	8	100.00
Non-food crops	255	100.00	352	138.04	510	200.00
Groundnut	41	100.00	38	92.68	142	346.34
Other oil-seeds	16	100.00	9	56.25	8	50.00
Tobacco	7	100.00	5	71.43	2	28.57
Cotton	191	100.00	300	157.06	358	187.43

STATEMENT XII.47-*concld.*

Production of major crops in districts

(Figures in hundred tons)

Major crops	1950–51		1955–56		1960–61	
	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7
SURAT DISTRICT						
Total	*2,490*	*100.00*	*2,711*	*108.88*	*3,454*	*138.71*
Food crops	2,262	100.00	2,362	104.42	2,876	127.14
Rice	901	100.00	938	104.11	1,284	142.51
Wheat	35	100.00	41	117.14	38	108.57
Jowar	733	100.00	481	65.62	486	66.30
Bajri	3	100.00	9	300.00	7	233.33
Other cereals	269	100.00	430	159.85	388	144.24
Tur	70	100.00	96	137.14	107	152.86
Other pulses	183	100.00	286	156.28	316	172.68
Other food crops	68	100.00	81	119.12	250	367.65
Non-food crops	228	100.00	349	153.07	578	253.51
Groundnut	64	100.00	87	135.94	304	475.00
Other oil-seeds	18	100.00	12	66.67	15	83.33
Tobacco	1	100.00	1	100.00	1	100.00
Cotton	145	100.00	249	171.72	258	177.93
DANGS DISTRICT						
Total	*57*	*100.00*	*90*	*157.89*	*149*	*261.40*
Food crops	57	100.00	90	157.89	149	261.40
Rice	28	100.00	20	71.43	32	114.29
Wheat	..	..	..	..	..	..
Jowar	..	..	..	..	..	..
Bajri	..	..	..	..	..	..
Other cereals	21	100.00	59	280.95	94	447.62
Tur	..	..	7	..	8	..
Other pulses	6	100.00	4	66.67	15	250.00
Other food crops	2	100.00	..	0	..	0
Non-food crops	..	..	..	..	1	..
Groundnut	..	..	..	..	1	..
Other oil-seeds	..	..	..	..	..	..
Tobacco	..	..	..	..	..	..
Cotton	..	..	..	..	..	..

SECTION 13

LIVESTOCK AND IMPLEMENTS

VARIATION BETWEEN 1951-61

162. The overall picture of growth presented by the statistics relating to livestock and agricultural implements is indeed heartening.

STATEMENT XII.53

Livestock and agricultural implements, 1951, 1956 and 1961

Category of Livestock/Agricultural Implements	1951	1956	1961
1	2	3	4
Total Cattle	*5,433,175*	*6,105,630*	*6,556,555*
1 Males over 3 years	2,562,112	2,746,387	3,045,875
(i) Breeding	37,081	17,565	14,757
(ii) Working	2,117,069	2,672,165	2,958,042
(iii) Others	102,520	56,657	73,076
2 Females over 3 years	1,569,216	1,663,899	1,837,655
(i) Breeding	1,053,452	1,636,246	1,822,683
(a) In milk	773,330	795,965	805,401
(b) Dry and not calved	446,572	840,281	1,017,282
(ii) Working	7,136	9,303	9,367
(iii) Others	1,620	18,350	5,605
3 Young stock	1,301,847	1,695,344	1,673,025
Total buffaloes	*2,525,801*	*2,649,872*	*2,916,581*
1 Males over 3 years	33,894	33,186	39,996
(i) Breeding	10,596	9,857	10,051
(ii) Working	19,850	20,528	22,862
(iii) Others	1,044	2,801	7,083
2 Females over 3 years	1,553,942	1,487,216	1,702,377
(i) Breeding	1,079,570	1,472,298	1,683,609
(a) In milk	923,780	897,217	899,219
(b) Dry and not calved	364,273	575,081	784,390
(ii) Working	4,167	6,384	12,444
(iii) Others	1,007	8,534	6,324
3 Young stock	937,965	1,129,470	1,174,208
Total sheep	*1,574,802*	*1,732,527*	*1,481,033*
(i) One year and above	566,386	1,471,229	1,266,087
(ii) Below one year	75,703	231,921	214,946
Total goats	*2,335,229*	*2,616,224*	*2,223,496*
(i) One year and above	1,369,234	1,827,621	1,740,752
(ii) Below one year	340,032	560,242	482,744
Total horses and ponies	*80,278*	*102,494*	*113,198*
(i) Three years and above	17,878	71,134	80,819
(ii) Below 3 years	10,932	26,658	32,379
Mules	*553*	*526*	*842*
Donkeys	*88,633*	*121,933*	*113,387*
Camels	*17,182*	*43,191*	*44,092*
Pigs	*3,580*	*420*	*5,211*
Total livestock	**12,059,233**	**13,372,817**	**13,454,395**

NOTE:

The figures of total cattle and total buffaloes for the years 1951 and 1956 do not agree with the total of their sub-heads, as figures for some of the districts are not available.

Source:

Director, Bureau of Economics and Statistics, Gujarat, State

STATEMENT XII.53-*contd.*

Livestock and agricultural implements, 1951, 1956 and 1961

Category of Livestock/Agricultural Implements	1951	1956	1961
1	2	3	4
Total Poultry	*1,195,233*	*1,942,107*	*2,048,284*
Fowls	1,166,023	1,089,630	2,036,240
Ducks	3,472	2,217	5,480
Others	N.A.	1,044	6,564
Agricultural machinery and implements			
Ploughs	1,255,042	1,255,022	1,565,464
(i) Wooden	1,188,615	1,203,983	1,459,616
(ii) Iron	25,157	51,039	105,848
Carts	*521,322*	*582,109*	*709,767*
Sugar-cane crushers	*1,841*	*3,839*	*6,340*
(i) Power	343	1,319	2,033
(ii) Bullocks	1,498	2,520	4,307
Oil-engines	8,157	19,264	45,000
Electrical pumps	600	1,109	6,229
Tractors	380	771	2,005
Ghanis more than five seers	2,466	4,036	3,279
Ghanis less than five seers	1,359	1,295	823
Persian Wheels or *rhents*	90	214	21,560

N.A.=Not available

STATEMENT XII.54

Percentage variation in livestock and agricultural implements, 1951, 1956 and 1961

Category of Livestock/Agricultural Implements	Per cent increase or decrease between 1951-56	Per cent increase or decrease between 1956-61	Per cent increase or decrease between 1951-61
1	2	3	4
Total Cattle	*+12.38*	*+7.39*	*+20.68*
1 Males over 3 years	+7.19	+10.90	+18.88
2 Females over 3 years	+6.03	+10.44	+17.11
3 Young stock	+30.23	—1.32	+28.51
Total buffaloes	*+4.91*	*+10.06*	*+15.47*
1 Males over 3 years	—2.09	+20.52	+18.00
2 Females over 3 years	—4.29	+14.47	+9.55
3 Young stock	+20.42	+3.96	+25.19
Total sheep	*+10.02*	*—14.52*	*—5.95*
Total goats	*+12.03*	*—15.01*	*—4.78*
Total horses and ponies	*+27.67*	*+10.44*	*+41.01*
Mules	—4.88	+60.08	+52.26
Donkeys	+37.57	—7.01	+27.93
Camels	+151.37	+2.09	+156.62
Pigs	—88.27	+1,140.71	+45.56
Total livestock	*+10.89*	*+0.61*	*+11.57*
Total poultry	*+62.49*	*+5.47*	*+71.37*
Agricultural machinery and implements			
Ploughs	—0.001	+24.74	+24.73
Carts	+11.66	+21.93	+36.15
Sugar-cane crushers	+108.53	+65.15	+244.38
Oil-engines	+136.17	+133.60	+451.67
Tractors	+102.89	+160.05	+427.63

Source:

Director, Bureau of Economics and Statistics, Gujarat State

The cattle wealth of the State has been increasing from one quinquennial census to another. While the total heads of livestock have risen from 12,059,233 in 1951 to 13,454,395 in 1961 by 11.57 per cent, those of cattle have gone up from 5,433,175 to 6,556,555 or 20.68 per cent and those of buffaloes from 2,525,801 to 2,916,581 or 15.47 per cent during the same period. Those in milk account for 805,401 or 43.83 per cent of cows and 899,219 or 52.82 per cent of buffaloes over three years. The young stock of both these categories have registered an appreciable increase exceeding 20 per cent as in the case of human population. Among the different categories of livestock, those which have shown a varied degree of decline relate only to sheep and goats. While sheep and goats have gone down by about 5 per cent, horses and ponies have registered a substantial increase of 41 per cent during the decade under review, followed by large increases in mules (52.26 per cent), donkeys (27.93 per cent) and camels (156.62 per cent). These fluctuations reveal some of the important changes at work in modern times when horses and ponies are being replaced by mechanised means of transport. But the demand for animal power for the movement of material has increased rather than decreased as a result of a number of construction works in progress in the different parts of the State. The growth of nearly 19 per cent in the case of bullocks may be taken to indicate a progressive demand for bullocks as draft-animal which supplies the major portion of the motive power required by the principal industry of the State, namely, agriculture. The increase, however, of 71.37 per cent in the poultry of the State is a significant departure from the past tendency, which came in the way of any noticeable improvement in this direction owing to the vegetarian habits of the people of the State. The great strides in the agricultural and farming practices and mechanisation of cultivation are evidenced by a substantial increase in agricultural machinery and implements during the past decennium. While the number of oil-engines has risen from 8,157 in 1951 to 45,000 in 1961, water-pumps have gone up from 600 to 6,229 and tractors from 380 to 2,005 during the same period. The rise, however, in the number of Persian wheels or *rhents* from 90 to 21,560 is really stupendous. Expressed in terms of percentage, while ploughs and carts have risen by 24.73 per cent and 36.15 per cent respectively, sugar-cane crushers and oil-engines have increased by 244.38 and 451.67 per cent respectively. Phenomenal growth of 427.63 per cent in the number of tractors is indeed remarkable.

163. The livestock statistics bear testimony not only to the development of agriculture in the State by the adoption of improved farming practices and increasing resort to mechanisation, but also reveal the mixed nature of the State economy wherein animal husbandry plays an important part as an occupation ancillary to cultivation. Gujarat has a long tradition of livestock raising represented by a traditional class of shepherds, Rabaris, Ahirs, etc., who own large herds of cattle, sheep and goats. Even an average cultivator keeps and maintains his own stock not only for getting the draft-animal he requires for tilling his land but also for the milk and curds his family needs as also for the surplus that can be disposed of to supplement the income from agriculture. The agricultural economy of the State is essentially a mixed economy combining cattle-breeding with cultivation. This has given Gujarat a well-developed dairy industry, exporting large quantities of milk and *ghee* to other States every year. Future holds out great promise for its development and expansion in the years ahead, as disclosed by the notable success achieved in this field by the Kaira District Milk Producers' Cooperative Union and others started in the public sector. In furtherance of this project, the future development will have to take account of a number of measures to improve not only the breed of cattle, but also the condition of cattle-breeders to place the profession of cattle-breeding on a scientific basis by encouraging their rehabilitation and settlement on selected sites with liberal financial aid. Grasslands will have to be improved and research laboratories opened at convenient centres to standardise dairy products.

SECTION 14

INDUSTRIAL DEVELOPMENT

GENERAL

164. Gujarat ranks high among the industrially advanced States of the Indian Union. In terms of economic aggregates, the position this State occupies *vis-a-vis* other States can be very well seen from some of the statistics of the Annual Survey of Industries, 1961 reproduced below according to which Gujarat stands third amongst the States in the industrial economy of India.

STATEMENT XII.55

Productive capital, products and by-products and value added by manufacture in large-scale industries in India and States, 1961

(Rs. in lakhs)

State	Productive capital		Products and by-products		Value added by manufacture	
	Productive capital (in Rs.)	Percentage to total	Products and by-products (in Rs.)	Percentage to total	Manufacture value (in Rs.)	Percentage to total
1	2	3	4	5	6	7
All States	**237,415**	**100.00**	**347,558**	**100.00**	**98,791**	**100.00**
Maharashtra . .	53,720	22.63	83,290	23.96	26,640	26.97
West Bengal . .	51,936	21.88	78,017	22.45	20,342	20.59
Gujarat . . .	*18,841*	*7.94*	*30,629*	*8.81*	*10,073*	*10.20*
Bihar . . .	27,186	11.45	27,899	8.03	6,719	6.80
Madras . . .	14,554	6.13	26,621	7.66	8,060	8.16
Mysore . . .	8,605	3.62	10,352	2.98	3,413	3.45
Andhra Pradesh .	8,580	3.61	11,839	3.41	2,765	2.80
Uttar Pradesh . .	16,758	7.06	27,447	7.90	6,262	6.34
Madhya Pradesh .	7,117	3.00	10,330	2.97	2,849	2.88
Punjab . . .	7,405	3.12	10,690	3.07	2,422	2.45
Assam . . .	6,577	2.77	8,434	2.43	2,728	2.76
Orissa . . .	5,810	2.45	4,074	1.17	1,206	1.22
Kerala . . .	4,666	1.96	8,133	2.34	2,387	2.42
Delhi . . .	2,572	1.08	5,992	1.72	1,614	1.63
Rajasthan . .	2,538	1.07	3,163	0.91	1,053	1.07
Jammu and Kashmir .	360	0.15	304	0.09	103	0.10
Himachal Pradesh .	147	0.06	302	0.09	145	0.15
Tripura . . .	43	0.02	42	0.01	10	0.01

Source:

Annual Survey of Industries, Central Statistical Organisation, 1961, Vol. I,

The percentage of products and by-products is 8.81 and that of value added by manufacture is 10.20 as compared to 23.96 and 26.97 per cent respectively in case of Maharashtra and 22.45 and 20.49 per cent respectively in case of West Bengal. The *per capita* value added by manufacture in Gujarat comes to Rs. 49 which is the third highest in India. The State proportion of employment and income derived from manufacturing industries is higher than the all-India average and stands on par with other industrially advanced States of the country. Registered factories under the industrial sector are next in importance to agriculture in the State economy, contributing as it does about 15 per cent towards the State income of Gujarat as against its share of 7 per cent in the national income. Judged on the basis of net output of registered factories in terms of contribution to the State income, it is seen that the net output which was Rs. 72 crores in 1955-56 increased steadily to Rs. 102 crores (at current prices) in 1960-61, that is by Rs. 30 crores or at an average annual rate of 8 per cent.

165. The statistics of employment and output in industries given in the statement below show that Gujarat occupies a very important place in the industrial fabric of the country. Among the States examined, its position is more or less akin to that of Maharashtra and a little superior to that enjoyed by Madras and Orissa and appreciably exceeds the all-India percentages of employment and output.

STATEMENT XII.56

Indices of industrial development in selected States of India, 1956

State	Employment					Output				
	Total	Industries (Millions)	Factories (Millions)	Percentage of col. 3 to col. 2	Percentage of col. 4 to col. 3	Total	Industries (Rs. crores)	Factories (Rs. crores)	Percentage of col. 8 to col. 7	Percentage of col. 9 to col. 8
1	2	3	4	5	6	7	8	9	10	11
All-India* . .	**152**	**14.89**	**2.88**	**9.8**	**19.4**	**99,900**	**1,750.0**	**780.0**	**17.5**	**44.5**
Maharashtra† .	15.8	1.80	0.65	11.4	36.0	10,170	262.0	179.3	26.0	68.0
Gujarat‡ . .	*7.06*	*0.87*	*0.35*	*12.4*	*40.2*	*5,090*	*115.0*	*78.7*	*22.7*	*68.2*
West Bengal† .	N.A.	N.A.	0.65	..	..	8,370	213.0	164.0	25.5	77.0
Madras† . .	9.2	1.08	0.30	11.7	28.7	7,320	123.0	67.5	16.8	55.0
Orissa† . .	5.1	0.45	0.024	8.8	5.4	3,270	33.5	4.9	10.2	14.6

N.A.=Not available

* Central Statistical Organisation estimates

† National Council of Applied Economics and Research estimates

‡ Government of Gujarat, Bureau of Economics and Statistics

NOTE:

Industrial employment is estimated on the basis of information available in the 1951 Census. Data on factory employment are available with the Chief Inspector of Factories. These have been adjusted for absenteeism and to take into account persons other than workers, as the Factories Act does not cover this category of employees.

Source:

Techno-Economic Survey of Gujarat, Table No. 25, p. 199

166. The general industrial pattern of Gujarat shows that it enjoys quite a good position among the States of the country which can in the present context be considered to be industrially developed not only from the point of output and employment but also from the role organised industries play in the industrial economy of the country. While textile manufacture, as already seen, occupies a place of pride in the industrial development of the State, agro-based industries, i.e., food industries including oil industry and Vanaspati, manufacture of non-metallic minerals, chemicals like soda ash, caustic soda, pharmaceuticals, dyes and paints and engineering industries are assuming greater importance and leading to diversification so very essential

for a balanced industrial growth. Among manufacturing industries, the role played by the organised sector comprising large-scale factories is very important, as the contribution made by small-scale industries is estimated to be only a little over 4 per cent of the State income. Besides a large number of traditional artisans and craftsmen working on household basis, small industries operating on the basis of a modern factory are also coming up in quite a large number.

167. One of the distinguishing features of the industrial landscape of Gujarat is fairly wide distribution of industrial activity between different regions. With a view to develop their own areas, the rulers of Princely States gave certain concessions for starting new industries in their territory. In the result, whatever the industrial or economic development that took place prior to Independence was not of an integrated and organised character. With the enunciation of planned economic development as one of the basic policies of the Government through successive Five Year Plan programme, all possible attempts are being made to remove the regional imbalance. But as all the regions in the State are not equally endowed in the matter of availability of natural resources, entreprenuerial skill, etc., the pattern of growth has to keep in view the basic differences in resources and capital available. The Five Year Plans have provided a favourable climate for the growth of industries at various places, particularly at such important industrial centres as Ahmedabad, Baroda, Surat, Bhavnagar, Jamnagar, Porbandar and Rajkot. The striking of oil and natural gas at different places in the State, development of a petro-chemical complex and supply of adequate and cheap power made available through Dhuvaran and Tarapore Nuclear power-station to be further augmented by the Narmada hydel project augur well for the future industrial development of the State.

Extent of Industrial Development

168. The industrial expansion that has taken place during the period 1952–60 can be very well judged from the analysis of licences issued under the Industries (Development and Regulation) Act, 1952 given in the table opposite.

STATEMENT XII.57

Industry-wise distribution of licences for industrial expansion, 1952-60

Industrial Category	Number of licences	Employment
Food products	37	6,250 (36)
Textiles	62	9,440 (62)
Forest-based industries	8	1,030 (8)
Chemicals	122	7,775 (35)
Metals and metal products	49	3,360 (19)
Non-metallic mineral products	16	4,750 (12)
Miscellaneous	1	87 (1)
Total	**295**	**32,692 (173)**

NOTE:

Figures in brackets indicate the number of licences to which the employment estimates relate.

Source:

Techno-Economic Survey of Gujarat, p. 202

The number of licences issued as well as estimates of employment show the dynamic and progressive character of chemical and textile industries, which jointly account for 62.38 per cent of 295 licences issued during 1952–60 comprising 41.36 per cent issued to chemicals and 21.02 per cent to textiles. Metal products and food products had 49 and 37 or 16.61 and 12.54 per cent of total licences. The employment estimates reveal that employment generated per licenced industry stood at 189, textiles and chemicals 28.88 and 23.78 per cent respectively of the total employment created.

Growth of Industrial Production

169 The number of working factories increased from 2,709 in 1956 to 3,520 in 1960 and to 4,035 at the end of 1962. The employment also went up from 3.16 lakh workers in 1956 to 3.43 lakh in 1960—an addition of 27,000 workers giving an average increase of 2.14 per cent

per annum. This increase registered a further rise of 4.95 per cent over that in 1960. Thus during 1961 and 1962 the industrial progress is seen to have been more rapid than what it was during the preceding four years.

170. Production trends of some of the important industries may be seen from the subjoined table.

STATEMENT XII.58

Industrial production, 1961–63

Sl. No.	Industries	Unit	Production (monthly average) 1961	1962	1963	Percentage increase (+) or decrease (—) in 1962 over 1961	1963 over 1962	1963 over 1961
1	2	3	4	5	6	7	8	9
1	Textiles							
	(a) Cotton textiles (mill sector)							
	(i) Yarn . .	'000 kg.	12,124	11,975	11,572	—1	—4	—5
	(ii) Cloth . .	'000 Metres	114,272	110,687	107,546	—3	—3	—6
	(b) Woollen							
	(i) Yarn . .	kg.	65,053	77,912	..	+20	..	..
	(ii) Cloth . .	Metres	95,766	110,340	..	+15	..	..
	(c) Art silk fabrics . .	'000 Metres	15,607	14,062	..	—10	..	..
2	Salt . . .	'000 Quintals	1,892	1,647	2,769	—13	+68	+46
3	Vegetable oil products (Vanaspati)	Quintals	13,406	17,444	18,326	+30	+5	+37
4	Sulphuric acid . .	Metric tonnes	1,353	1,553	..	+15	..	..
5	Soap . . .	„ „	49	53	49	+8	—8	..
6	Cement . . .	„ „	84,456	85,461	98,467	+1	+15	+17
7	Refractories . .	„ „	1,165	1,235	1,353	+6	+9	+16
8	Finished steel . .	„ „	0.8	1.6	..	+100	..	..
9	Power driven pumps .	Nos.	1,956	1,791	2,022	—8	+13	+3
10	Bicycle spare parts . .	'000 Rs.	186.8	187.5	205	+0.3	+9.33	+9.74
11	Sanitary wares . .	Metric tonnes	162	163	169	+0.6	+3.6	+4.3
12	Glazed tiles . .	Doz.	50,554	41,204	..	—18	..	..
13	Stoneware pipes . .	Metric tonnes	314	264	624	—16	+136	+99
14	Electricity (generation) .	Million kWh	111.335	122.728	131.682	+10	+7	+18

Source:

Budget in Brief, Gujarat State, 1963-64 and 1964-65, Part I

The major organised industries of the State are textiles, general and electrical engineering, vegetable oils, chemicals including salt, cement and ceramics. Except cotton textiles which experienced some difficulty due to accumulation of unsold stocks, the industrial production in case of selected industries as detailed above registered an increase in 1963 over 1961. Among the important industries of the State, salt recorded an increase of 46 per cent, vegetable oil products 37 per cent, cement 16 per cent, stoneware pipes 99 per cent and electricity (generation) 18 per cent.

The development of organised industries is lop-sided, as the textile industry with 46 per cent of total productive capital and 56 per cent of ex-factory value of gross output and 30 per cent of mill-made cloth produced in the country holds a domineering position in the industrial economy of the State. The production of cement is about one-ninth of the total all-India figure, while that of caustic soda is one-fifth. But the State claims to possess the whole of Indian soda ash industry.

171. The progress made by large-scale industrial units in the State is also reflected in the

results of Annual Survey of Industries which covers factories employing (i) 50 or more workers and using power and (ii) 100 or more workers not using power. Main features of industrial growth in Gujarat compared with all-India as presented in the table given below amply show that Gujarat ranks among one of the industrially advanced States of the country and makes a fair contribution to the productive capital, employment and output.

STATEMENT XII.59

Productive capital, employment, output and value added by manufacture, 1959, 1960 and 1961

Items	Units	1959			1960			Percentage increase (+) or decrease (—) over 1959	
		India	Gujarat	Percentage of Gujarat to all-India	India	Gujarat	Percentage of Gujarat to all-India	India	Gujarat
1	2	3	4	5	6	7	8	9	10
1 Productive capital	Rs. crores	1,737	127.25	7.33	1,999	147.97	7.40	+15.08	+16.28
2 Persons employed	Number	2,870,016	294,873	10.27	2,903,948	282,414	9.73	+1.18	—4.23
3 Ex-factory value of gross output	Rs. crores	2,691	237.32	8.82	3,181	270.46	8.50	+18.21	+13.96
4 Value added by manufacture	Rs. crores	759	73.90	9.74	866	88.03	10.17	+14.10	+19.12

Items	Units	1961			Percentage increase (+) or decrease (—) over 1960		Percentage increase (+) or decrease (—) in 1961 over 1959	
		India	Gujarat	Percentage of Gujarat to all-India	India	Gujarat	India	Gujarat
1	2	11	12	13	14	15	16	17
1 Productive capital	Rs. crores	2,374	188.41	7.94	+18.76	+27.33	+36.67	+48.06
2 Persons employed	Number	3,049,736	307,770	10.09	+5.02	+8.98	+6.26	+4.37
3 Ex-factory value of gross output	Rs. crores	3,693	323.23	8.75	+16.10	+19.51	+37.24	+36.20
4 Value added by manufacture	Rs. crores	988	100.73	10.20	+14.09	+14.43	+30.17	+36.31

Source:

Annual Survey of Industries, Central Statistical Organisation 1959, 1960 and 1961

172. A comparative review for the three years (1959–61) reveals that the percentage increase of the productive capital in 1961 over 1959 in Gujarat is greater by 11.39 per cent as compared to all-India figures for the corresponding period. The percentage increase in 1961 over 1959 in case of persons employed is 6.26 in India against 4.37 per cent in Gujarat for the same period. The ex-factory value of gross output for the corresponding period has recorded an increase of 37.24 and 36.20 per cent in India and Gujarat respectively. In case of value added by manufacture, the percentage increase registered during these three years is 30.17 in India as against 36.31 in Gujarat.

Regional Distribution

173. A very interesting study was undertaken by the State Bureau of Economics and Statistics after the formation of the State of Gujarat, the

results of which are published in the *Quarterly Bulletin* of the Bureau, Vol. III, No. 2, 1963. This study attempts to assign the relative share of districts in the large-scale industrial development in Gujarat and is based on the Annual Survey of Industries, 1959. The statement reproduced below shows the relative stage of industrial development in the various districts of the State.

STATEMENT XII.60

Productive capital, employment, output and value added by manufacture

Sl. No.	District	Productive capital		Persons employed		Output		Value added	
		Rs. in '000	Percentage to total	Numbers	Percentage to total	Rs. in '000	Percentage to total	Rs. in '000	Percentage to total
1	2	3	4	5	6	7	8	9	10
Total		**1,272,457**	**100.00**	**294,873**	**100.00**	**2,373,209**	**100.00**	**738,973**	**100.00**
1	Kutch	8,866	0.70	2,001	0.68	5,680	0.24	1,726	0.23
2	Jamnagar	109,183	8.58	10,044	3.41	182,282	7.68	40,553	5.49
3	Rajkot	22,901	1.80	6,695	2.27	29,896	1.26	10,384	1.41
4	Surendranagar	40,179	3.16	11,358	3.85	37,439	1.58	15,193	2.06
5	Bhavnagar and Amreli*	49,113	3.85	10,257	3.49	98,515	4.15	29,898	2.83
6	Junagadh	26,184	2.06	4,826	1.64	40,770	1.72	7,604	1.93
7	Sabarkantha	8,469	0.66	4,076	1.39	45,857	1.93	3,635	0.49
8	Mehsana and Banaskantha†	32,298	2.54	12,229	4.15	81,046	3.41	27,090	3.67
9	Ahmedabad	609,927	47.94	152,457	51.70	1,187,001	50.02	414,818	56.13
10	Kaira	73,511	5.78	13,664	4.63	142,395	6.00	37,122	5.02
11	Panchmahals	23,929	1.88	5,005	1.70	32,957	1.39	8,745	1.18
12	Baroda	88,660	6.97	27,158	9.19	220,246	9.28	76,735	10.38
13	Broach	12,798	1.01	8,636	2.93	44,148	1.86	5,679	0.77
14	Surat	166,439	13.09	26,467	8.98	224,977	9.48	68,801	9.31

* Includes figures of one factory in Amreli district

† Includes figures of one factory in Banaskantha district

Source:

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. III, No. 2, April-June, 1963, p. 8

174. The highly industrialised and urbanised district of Ahmedabad including as it does the metropolitan area of Ahmedabad City, where most of the industries are concentrated, ranks first followed by Surat and Jamnagar, whereas Sabarkantha and Kutch occupy the lowest rungs of the ladder. There is some competition, however, between Surat and Baroda which gets precedence over Surat, as the contribution it makes to the State income and value added comes to 10.4 per cent as against 9.3 per cent for Surat. The Ahmedabad-Baroda axis has a bright future. The vast possibilities of industrial expansion which it has after the recent find of petroleum products and natural gas in Anklesvar and Cambay areas are heightened still further by the establishment of petroleum refinery and fertilizer plant in the vicinity of Baroda. These two districts along with Surat account for the greater part of industrial concentration not only in Mainland Gujarat but also in the State as a whole. To Jamnagar which ranks first among the districts of Peninsular Gujarat should be added Rajkot and Bhavnagar, which have made some contribution to the industrial development of this area. The districts which can be termed relatively backward are Banaskantha, Mehsana, Sabarkantha, Kutch, Broach and the Panchmahals.

175. The distribution of industries in the various districts of the State will now be reviewed in the light of the statistics thrown out by this study. Food processing industries including dairy products worked on large-scale basis exist in 14 districts of the State among whom Jamnagar, Bhavnagar, Surendranagar, Ahmedabad and Kaira occupy an important position. Jamnagar, however, leads from the standpoint of output and accounts for 24 per cent of the total ex-factory value of output, followed by Bhavnagar, Ahmedabad and Kaira. Among textiles, including spinning, weaving and finishing, Ahmedabad is obviously at the top claiming 71 per cent of the total share in this industry. Surat occupies

a second place because of its arts silk industry, followed by Kaira and Mehsana. Peninsular Gujarat does have some share in the large-scale sector of textile industry but its contribution is comparatively less important. Another branch of cotton textile is ginning and pressing which have large-scale factories in all the districts of the State except Amreli, Banaskantha and the Dangs. Among industries manufacturing non-metallic minerals comprising structural clay products, glass and glass products, ceramics, cement, etc., Jamanagar appropriates the highest productive capital 42.21 per cent. Other districts where large-scale manufacture is important in this branch of industry are Kaira, Baroda and the Panchmahals. For the manufacture of machinery except electrical machinery, Baroda has made its mark by accounting for 48 per cent of the productive capital, 38 per cent of the total employment, 46 per cent of the total ex-factory value of output and 52 per cent of the total value added. Other districts which follow are Ahmedabad and Mehsana. In the manufacture of transport equipment on large-scale, the districts which are worthy of note in addition to Ahmedabad, which claims the largest share of this industry, are Baroda, Rajkot, Mehsana, the Panchmahals, Kaira and Surat. Mehsana, Banaskantha, Sabarkantha and the Dangs in Mainland Gujarat and Amreli and Junagadh in Peninsular Gujarat do not possess a single unit under the miscellaneous category of large-scale industries not covered by those noted above. The districts, however, which claim to be better situated in this respect are Ahmedabad, Baroda, Surat and Jamnagar, followed by Surendranagar and Bhavnagar, with some industrial activity in Kutch, Rajkot, the Panchmahals and Broach.

Variation in the Economic Growth of Districts

176. In the context of industrial development noticed above, a comparative idea of the economic progress the different districts of the State have made can be had from the results of another study "Regional disparities in the income of Gujarat State" by the Director, Bureau of Economics and Statistics, Gujarat State, published in the Quarterly Bulletin of the Bureau, Vol. III, No. 3 of 1963. The figures interpreted in this study relate to the year 1959-60. The following table gives *per capita* income by district. Another table that follows shows the distribution of districts according to the index of *per capita* range.

STATEMENT XII.61

***Per capita* income by district**

District	Per cent of income to total State income	*Per capita* income (with State *per capita* income=100)	Density of population (1961 Census with State density=100)
1	2	3	4
Total	**100.0**	**100.0**	**100.0**
1 Kutch	3.5	97.3	14.3
2 Jamnagar	5.3	129.5	73.5
3 Rajkot	6.6	116.1	92.1
4 Surendranagar	3.4	110.4	58.1
5 Bhavnagar	5.8	102.3	84.3
6 Junagadh	5.8	93.6	104.3
7 Amreli	2.1	69.1	151.2
8 Banaskantha	3.0	65.4	91.4
9 Sabarkantha	3.9	83.9	113.0
10 Mehsana	6.7	81.9	136.9
11 Ahmedabad	20.6	191.6	223.7
12 Kaira	7.0	71.1	264.0
13 Panchmahals	4.6	64.4	147.4
14 Baroda	6.9	96.4	180.6
15 Broach	3.6	87.2	104.6
16 Surat	11.0	93.6	176.8
17 Dangs	0.2	68.1	36.4
Actual figures for the State	Rs. 581 crores	Rs. 298	285.6 persons per sq. mile

Source:
Quarterly Bulletin, Bureau of Economics and Statistics, Vol. III, No. 3, July-September, 1963, p. 2

STATEMENT XII.62

Distribution of districts according to the index of *per capita* range

Index of *per capita* income (State=100)	No. of districts	Name of districts
1	2	3
Less than 50 .	..	..
50 or more but less than 75 . .	5	Amreli, Banaskantha, Kaira, Panchmahals, Dangs
75 or more but less than 100 . .	7	Kutch, Junagadh, Sabarkantha, Mehsana, Baroda, Broach, Surat
100 or more but less than 125 . .	3	Rajkot, Surendranagar, Bhavnagar
125 or more but less than 150 . .	1	Jamnagar
150 or more . .	1	Ahmedabad
Total . .	**17**	

Source:
Quarterly Bulletin, Bureau of Economics and Stastitics, Vol. III, No. 3, July-September, 1963, p. 2

177. A general reading of these statistics discloses a very wide variation in the index of *per capita* income ranging between 192 for Ahmedabad district and 64 for the Panchmahals. The former is the only district of the State which is fortunate to have a place in the highest range of 150 or more. Of the rest, 12 have a *per capita* income below 100 as against 5 which exceed the total range of 100 for all the districts combined. Referring to these disparities which do not conform to local knowledge and other evidences about economic development as shown by a district like Kaira (Rs. 212) which is seen to be economically less advanced than Kutch (Rs. 290) and Sabarkantha (Rs. 250), it is observed:

> "It seems, therefore, somewhat hazardous to give a simple answer to the above question. The reason for this is to be found in the concentration of population as expressed by the density of population in different districts. For instance the density of Kaira district is 754 persons per sq. mile, the highest for any district in Gujarat, as against only 41 persons per sq. mile for Kutch and 323 for Sabarkantha. A plausible reason, and perhaps the most important one, for the existence of high density areas with low *per capita* income is to be found in the large proportion of the population depending on agriculture, not contributing materially to agricultural production and being, therefore, almost redundant. In underdeveloped areas where the contribution of agricultural income to the national income is quite substantial, it is, therefore, possible to have high density areas—unless they are highly urbanised areas dependant largely on secondary and tertiary sectors (e.g., Ahmedabad)—with low *per capita* income. And, these need not necessarily be relatively backward as compared to some areas with low density and high *per capita* income. This is a feature of the underdeveloped economy which needs more emphasis than it has received since there is usually great temptation to identify low *per capita* income areas with backward areas, without examining the density aspect of those regions. Even when allowance is made in the case of Kutch of the vast stretches of desert land, and the land-man ratios are worked out where land means only cultivable land and not the geographical areas, Kutch is so much more favourably placed with a figure of 2.3 acres per person as against only 0.7 acres per person for Kaira, that even with less advanced techniques of agricultural production than used in Kaira, and less industrial development, Kutch, has a higher *per capita* income than Kaira."[1]

178. To account for the density factor, which cannot be ignored in assessing economic development of underdeveloped countries, a fourfold classification of the different districts in terms of low and high density is given in the following table.

STATEMENT XII.63

Distribution of districts by high and low density and high and low *per capita* income

Density	Low *per capita* income	High *per capita* income
1	2	3
Low density .	Dangs, Broach, Banaskantha, Kutch	Bhavnagar, Surendranagar, Rajkot, Jamnagar
High density .	Surat, Baroda, Panchmahals, Kaira, Mehsana, Sabarkantha, Amreli, Junagadh	Ahmedabad

Source:

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. III, No. 3, July-September 1963, p. 3

179. Among the districts, Ahmedabad is the only one which combines high density with high *per capita* income, the converse being true in case of the Dangs, Broach, Banaskantha and Kutch, where low density is accompanied by low rate of *per capita* income. The remaining districts, it is difficult to classify either as backward or advanced only on the basis of *per capita* income. It is, however, possible to circumvent this difficulty

1. *Quarterly Bulletin*, Bureau of Economics and Statistics, Vol. III, No. 3, July-September, 1963

by an analysis of the sector-wise contribution to district incomes, as given in the table that follows.

STATEMENT XII.64

Sectoral contribution to district incomes

District	Percentage of sectoral income to total income			
	Primary	Secondary	Tertiary	All sectors
1	2	3	4	5
Total . .	**44.0**	**22.2**	**33.8**	**100.0**
1 Kutch	63.2	6.3	30.5	100.0
2 Jamnagar	52.4	22.2	25.4	100.0
3 Rajkot	53.0	13.8	33.2	100.0
4 Surendranagar	50.5	19.4	30.1	100.0
5 Bhavnagar	55.1	17.3	27.6	100.0
6 Junagadh	61.9	9.9	28.2	100.0
7 Amreli	61.1	11.2	27.7	100.0
8 Banaskantha	67.6	6.2	26.2	100.0
9 Sabarkantha	70.1	7.3	22.6	100.0
10 Mehsana	52.0	14.4	33.6	100.0
11 Ahmedabad	10.8	46.1	43·1	100.0
12 Kaira	45.6	17.3	37.1	100.0
13 Panchmahals	62.1	8.5	29.4	100.0
14 Baroda	39.4	24.8	35.8	100.0
15 Broach	58.2	7.6	34.2	100.0
16 Surat	38.9	26.5	34.6	100.0
17 Dangs	77.3	0.7	22.0	100.0
Actual figures for the State (in crores of Rs.)	256	129	196	581

Source:

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. III, No. 3, July-September 1963, p. 5

180. The Statement XII.65 opposite gives ranking of districts in the economic structure of Gujarat on the basis of their share in secondary and tertiary activities, a higher rank being given to that district which accounts for a higher share in both these sectors combined. Such a comparison has also been made in Chapter X on the basis of workers engaged in different sectors of industry which also reveals the same results about levels of economic development.

STATEMENT XII.65

Ranking of districts according to percentage share of the combined secondary and tertiary activities

District	Combined share of secondary and tertiary activities
1	2
1 Ahmedabad . .	89.2
2 Surat . .	61.1
3 Baroda . .	60.6
4 Kaira . .	54.4
5 Surendranagar . .	49.5
6 Mehsana . .	48.0
7 Jamnagar . .	47.6
8 Rajkot . .	47.0
9 Bhavnagar . .	44.9
10 Broach . .	41.8
11 Amreli . .	38.9
12 Junagadh . .	38.1
13 Panchmahals . .	37.9
14 Kutch . .	36.8
15 Banaskantha . .	32.4
16 Sabarkantha . .	29.9
17 Dangs . .	22.7

Source:

Quarterly Bulletin, Bureau of Economic and Statistics, Vol. III, No. 3, July-September 1963, p. 5

Dispersal of Industries

181. The growth of industries in the State is no exception to the general tendency of concentration in certain areas or cities due to availability of necessary raw materials and other facilities like power, water, transport, marketing, etc. Industrial growth in Gujarat has so far concentred itself in and around Ahmedabad, Baroda, Surat, Jamnagar, Bhavnagar and Rajkot. To overcome the social and economic evils attendant on heavy concentration of industries in large urban centres, Master Plans for big cities like Ahmedabad, Baroda, Rajkot, Surat, etc., have been drawn with a view to achieve a systematic dispersal of industrial projects and avoid the adverse effects of lop-sided and fully saturated industrial development in certain areas only. Other steps taken by the State Government in this direction are:

(a) While recommending cases for large-scale units for an industrial licence, efforts are made to get them established as far as possible in uncongested areas.

(b) For locating cotton textile mills, sugar factories and cement factories, selection of sites has been made in undeveloped areas like Sabarkantha, Rajpipla, Amreli, Junagadh and Porbander.

(c) To prevent haphazard and disorderly growth of industries, Gujarat Industrial Development Corporation is set up to develop industrial areas at places outside the conventional big towns but within their normal approach and afford all essential amenities required to run the industries. Two rural industrial pockets with the specific intention of developing backward areas are sanctioned.

(d) Uniform tariff on power and graded power subsidy will reduce the advantage of urban location.

(e) Relief for octroi by large number of local governing bodies will also reduce the cost disadvantage of non-urban location of industries.

Growth of Urban Population and Growth of Industries

182. Industries are usually set up in or near large cities and towns due to ready availability of power, water-supply, transport, facilities for repairs and services to machinery and proximity of market for the disposal of products of industry. The distribution of workers as per 1961 Census reveals that a little more than one-third of the total urban workers (33.90 per cent) are returned as working in the two industrial categories of household industry (Category IV) and manufacturing other than household industry (Category V) in towns as against 8.03 per cent in villages. These figures clearly bring out the importance of manufacturing industries and concentration of industrial workers in urban areas.

183. As per 1961 Census there are 181 towns in the State. 127 of these had registered factories working in 1956 and 142 by 1960 leaving a gap of 39 towns yet to be made up. The following table compares district-wise number of urban and rural centres, factories and workers in 1956 and 1960.

STATEMENT XII.66

Number of urban and rural centres with factories and workers in 1956 and 1960

Sl. No.	District	Urban area					
		1956			1960		
		Number of centres	Factories	Workers	Number of centres	Factories	Workers
1	2	3	4	5	6	7	8
	Total	**127**	**2,156**	**274,880**	**142(181)**	**2,804**	**296,749**
1	Kutch	6	19	1,227	6(6)	26	2,858
2	Jamnagar	9	90	10,951	11(15)	122	10,274
3	Rajkot	11	135	9,769	11(14)	208	9,451
4	Surendranagar	9	46	5,430	9(11)	50	5,425
5	Bhavnagar	11	157	11,570	10(13)	197	12,424
6	Junagadh	13	70	4,239	15(17)	110	6,781
7	Amreli	8	31	754	11(13)	46	1,676
8	Banaskantha	3	16	257	4(4)	18	472
9	Sabarkantha	4	15	1,208	5(5)	21	1,513
10	Mehsana	10	64	13,011	12(14)	82	11,590
11	Ahmedabad	9	645	154,845	9(14)	871	164,103
12	Kaira	11	110	8,398	12(17)	137	8,976
13	Panchmahals	4	29	3,967	4(3)	31	3,809
14	Baroda	6	136	18,554	7(9)	178	21,856
15	Broach	4	36	4,061	4(4)	30	3,611
16	Surat	9	517	26,629	12(17)	677	31,930
17	Dangs	..	..	..	..	..	..

NOTE:

Figures in bracket show the total number of urban areas according to 1961 Census.

Source:

Location of Industries in Gujarat State, 1956-60, p. 54

STATEMENT XII.66-*contd.*

Sl. No.	District	Rural area					
		1956			1960		
		Number of centres	Factories	Workers	Number of centres	Factories	Workers
1	2	9	10	11	12	13	14
	Total	**286**	**553**	**41,180**	**333**	**716**	**45,965**
1	Kutch	5	10	539	9	14	893
2	Jamnagar	8	8	214	12	20	376
3	Rajkot	39	47	1,725	51	84	1,852
4	Surendranagar	27	36	3,578	33	56	5,385
5	Bhavnagar	12	19	387	13	32	1,031
6	Junagadh	10	17	482	15	28	930
7	Amreli	5	6	216	5	9	311
8	Banaskantha	1	1	60	1	2	38
9	Sabarkantha	10	22	1,838	16	32	2,695
10	Mehsana	17	25	1,606	13	20	1,244
11	Ahmedabad	21	37	2,363	23	40	2,606
12	Kaira	37	130	9,458	51	159	9,742
13	Panchmahals	10	19	1,299	8	27	1,489
14	Baroda	33	77	7,266	33	70	6,251
15	Broach	22	41	4,719	22	36	4,431
16	Surat	29	58	5,430	27	86	6,674
17	Dangs	..	..	..	1	1	17

The average size of a centre in terms of employment is 2,090 in urban areas and 138 in rural areas in the year 1960. About 79 per cent of the factories and 87 per cent of total workers are in towns, while only 21 per cent of the factories and 13 per cent of workers are in the countryside. These ratios are in inverse proportion to the percentage distribution of the working population of the State in urban (18.74) and rural (81.26) areas as enumerated at the Census of 1961.

URBAN POPULATION IN THE WORKING AGE-GROUP

184. Percentage distribution showing the growth of urban population in the working age-group (15–59) to total urban population for each district according to 1961 Census is detailed in the table opposite.

The percentage of urban population in the working age-group to total urban population for the State stood at 54.63. This percentage is the highest in Ahmedabad (57.27 per cent), Baroda (56.07 per cent) and Surat (55.87 per cent) which are the most important industrial areas of the State and contain the three premier industrial cities of Mainland Gujarat. The trends in licensing of industrial undertakings involving investment of more than Rs. 10 lakhs each also show that out of 51

STATEMENT XII.67

Urban population in working age-group (15-59), 1961

State/District	Population in the working age-group (15–59)	Total urban population	Percentage of population in working age-group to total urban population
1	2	3	4
GUJARAT	**2,904,516**	**5,316,624**	**54.63**
1 Jamnagar	152,861	293,658	52.05
2 Rajkot	243,230	467,984	51.97
3 Surendranagar	96,277	185,642	51.86
4 Bhavnagar	184,505	352,429	52.35
5 Amreli	72,459	142,570	50.82
6 Junagadh	186,708	351,752	53.08
7 Kutch	73,440	135,038	54.38
8 Banaskantha	38,021	70,654	53.81
9 Sabarkantha	34,018	61,208	55.58
10 Mehsana	163,225	299,993	54.41
11 Ahmedabad	769,455	1,343,579	57.27
12 Kaira	209,564	383,771	54.61
13 Panchmahals	82,598	154,859	53.34
14 Baroda	222,893	397,494	56.07
15 Broach	72,311	133,798	54.04
16 Surat	302,951	542,195	55.87

NOTE:

The Dangs district being entirely rural, has no urban area.

licences issued for new concerns in the State, 15 were for industries to be promoted in Ahmedabad district, 13 in Baroda and 12 in Surat during the period May 1960 to November 1964 which jointly accounted for 78.43 per cent of such licences. Similar pattern of concentration is also discernible from the figures of licences for substantial expansion in the State issued during this period. Out of 98 such licences, 39 were in Ahmedabad, 28 in Baroda and 13 in Surat district making a total of 81.63 per cent.

185. According to a survey conducted by the Bureau of Economics and Statistics, Gujarat, regarding location of industries in Gujarat State, 1956-60, it has been noticed that 79 per cent of the industrial units in Gujarat were located in urban areas and less than 21 per cent in rural areas. Even among urban centres, the concentration of employment, capital, production, etc., is confined only to a few. Ahmedabad accounts for over 48.64 per cent of the total number of factory workers in the State followed by Surat with 11.26 and Baroda with 8.20 per cent, their combined contribution to employment being 68.10 per cent. Other districts whose share in the total factory employment is worth mention are Kaira (5.46), Mehsana (3.74), Jamnagar (3.11), Rajkot (3.30), Bhavnagar (3.93) and Surendranagar (3.15). Individual share in case of districts like Banaskantha and Amreli is less than one per cent and in case of districts like Sabarkantha and Kutch, it is a little over one per cent.

186. With a view to have an idea about the number of workers in factories relative to total population in various districts of the State, an index known as "Index of Concentration" wherein the number of workers in a district to the total population, as the percentage of the corresponding proportion for the State as a whole has been constructed in the survey aforementioned.

187. Ahmedabad and Baroda have comparatively higher index of concentration, though the difference in the range of these two districts is considerable—450 for one and 110 for the other. Ranking reveals no change in their position between 1956 and 1960. Surendranagar, Mehsana, Junagadh, Banaskantha and the Dangs are also the districts which have retained the same rank in 1956 and 1960. Surat and Jamnagar had an exchange of ranks, the former gaining a higher position. Districts of Bhavnagar, Kaira, Sabarkantha and Amreli have secured higher ranks in 1960 as compared to their position in 1956. The fall in the index value in a district also reveals that the rate of increase in the number of workers has not kept pace with the rate of increase in the State population.

STATEMENT XII.68

Index of concentration of industrial workers, 1956-60

State/District	1956	Rank	1960	Rank
1	2	3	4	5
GUJARAT	**100.00**		**100.00**	
1 Ahmedabad	468.8	1	450.7	1
2 Baroda	109.6	2	110.7	2
3 Jamnagar	90.3	3	77.9	5
4 Surendranagar	89.8	4	90.3	4
5 Surat	84.7	5	95.0	3
6 Broach	63.6	6	54.18	9
7 Rajkot	62.8	7	56.3	8
8 Bhavnagar	62.5	8	72.3	6
9 Kaira	58.1	9	56.9	7
10 Mehsana	55.4	10	45.7	10
11 Junagadh	27.4	11	37.2	11
12 Panchmahals	23.6	12	21.7	13
13 Sabarkantha	22.1	13	27.6	12
14 Kutch	16.3	14	10.9	15
15 Amreli	9.0	15	17.8	14
16 Banaskantha	2.1	16	3.4	16
17 Dangs	0.0	17	1.4	17

Source:
Locations of Industries in Gujarat State, 1956-60

CHANGES IN CAPITAL-LABOUR AND CAPITAL-OUTPUT RATIO

188. A comparison about the changes in the capital-labour and capital-output ratio over the entire decade 1951-60 will provide some interesting technological ratios useful for studying the growth pattern of manufacturing industries. But due to difference in concepts and coverage during this period in the Annual Survey of Industries, formerly known as Census of Manufacturing Industries and territorial changes

in Gujarat State, such a comparative study will not serve any useful purpose. The technological ratios as available from the figures of Annual Survey of Industries for three years (1959-61) for India and Gujarat are reproduced below.

STATEMENT XII.69

Capital-labour and capital-output ratio, 1959-61

(In Rs.)

Year	India: Capital-labour ratio	Capital-output ratio	Percentage of productive capital to salaries & wage paid to workers	Percentage of productive capital to output	Value of output per worker	Productive capital per worker
1	2	3	4	5	6	7
1959	0.17	1.55	17	155	10,728	6,925
1960	0.17	1.58	17	158	12,208	7,748
1961	0.16	1.56	16	156	13,485	8,669

Year	Gujarat: Capital-labour ratio	Capital-output ratio	Percentage of productive capital to salaries & wage paid to workers	Percentage of productive capital to output	Value of output per worker	Productive capital per worker
1	8	9	10	11	12	13
1959	0.28	1.86	29	187	8,916	4,781
1960	0.27	1.83	27	183	10,636	5,819
1961	0.23	1.72	23	172	11,550	6,732

Source:
Annual Survey of Industries, by Central Statistical Organisation

189. Capital-labour and capital-output ratios of the State are fairly comparable with and slightly higher than all-India. The percentage of productive capital to salaries and wages paid to workers for the year 1961 is 16 in case of India as against 23 in Gujarat. Corresponding percentages of productive capital to output are 156 and 172. The value of output per worker for 1961 is Rs. 13,485 for India as against Rs. 11,550 for Gujarat. The productive capital per worker for the same period in respect of India and Gujarat was Rs. 8,669 and Rs. 6,732 respectively. A review over a period of three years (1959-61) in case of India as well as Gujarat shows steadily increasing trends of value of output and productive capital per worker. The value of output per worker has advanced from Rs. 10,728 in 1959 to Rs. 13,485 in 1961 in case of India, the corresponding increase in case of Gujarat being from Rs. 8,916 to Rs. 11,550. The productive capital per worker has also registered similar increases from Rs. 6,925 in 1959 to Rs. 8,669 in 1961 in the country as a whole, as compared to Rs. 6,732 from Rs. 4,781 in the State.

INDUSTRIAL RELATIONS

190. Economic activity ushered through the rising tempo of industrialisation is not to be conceived solely in terms of investment and output, wages and profits. The principal test of this progress is the quality and growth of human material working behind the machine and the improvement in their working and living conditions brought about as a result of planned economic development. Various legislative enactments and other ameliorative and welfare measures have,

therefore, been introduced for the purpose of securing industrial peace, harmonious industrial relations, social security and environmental development.

191. Fifteen different enactments of labour welfare were in force in Gujarat State for improving industrial relations, maintaining industrial truce, settlement of industrial disputes and providing minimum wages to workers. Social security measures like Employee's State Insurance Act, 1948, Employee's Provident Fund Act, 1952, Gujarat Labour Welfare Fund Act, 1961 and the Maternity Benefit (Gujarat Amendment) Act, 1963 were also introduced. Some beginning to improve the living conditions of working classes was made before the enunciation of the First Five Year Plan under the Post-War Reconstruction Programme. In the First Plan were implemented schemes such as labour welfare centres and allied activities, training in labour welfare and regulation of employement in the cotton textile industry in Ahmedabad. Under the Minimum Wages Act, 1948, minimum rates of wages were fixed in industries where the wages were low and labour unorganised. They include employment in rice, flour and *dal* mills, tobacco, oil-mills, maintenance of roads, building operations, stone breaking and stone crushing, public motor transport, printing presses, cotton ginning and pressing, shops and commercial establishments, etc. The Third Plan of the State envisages creation of an adequate executive machinery for the enforcement of the Minimum Wages Act and regulation of conditions of service including fixation of norms and creation of standing machinery for fixation and revision of minimum wages. Under the Employee's State Insurance Act, 1948, medical benefits are to be provided to the insured workers and their family members by the Employee's State Insurance Corporation and the State Government in the agreed ratio of 7:1. The scheme which has been introduced in October 1964 is to be implemented during the Third Plan in all areas with an insurable population of 15,000 or more. On this basis medical care will be made available to approximately 8 lakh workers during the current Plan period. Facilities for recreational and cultural activities were provided by 34 labour welfare centres in existence at the end of the Second Plan. The important activities contemplated during the Third Plan are additional amenities in labour welfare centres, cinema activities as a means for providing education and recreation, training of labour welfare workers and provision of essential amenities and recreational and cultural activities in the labour colonies.

Housing Conditions of Industrial Workers

192. Housing standards differ in urban and rural areas due to differences in the environs in which the town-dweller and villager live as well as the economic activities they pursue. In case of urban areas where overcrowding and congestion are heavier, as in Ahmedabad City where regular slum pockets exist, data on housing conditions provide one of the best indicators about the living conditions of their inhabitants. The relevant data collected on this subject at the time of Housing Census and analysed in detail in the Report on Housing and Establishments throw useful light on this subject. However, the salient features bearing on the subject are briefly noted below.

193. Nearly 81 per cent of the households in urban areas live in dwellings which are overcrowded and occupied by more than two persons to a room. The maximum point of overcrowding is in single room tenements which number 539 in every thousand of urban households as against 624 in rural. Rajkot City with the highest proportion of 702 households living in single room tenements is comparatively more congested than any other city. Next in order are Ahmedabad (653), followed by Bhavnagar (577), Surat (493), Jamnagar (433) and Baroda (415). Though no definite and clear definition and demarcation about "slum areas" is available, the Ahmedabad Municipal Corporation has classified as slum certain hutment areas with sub-standard housing which are found to exist in 15 out of 29 wards in the city. 91 per cent of the households living in areas demarcated as slums inhabit one room tenements, 7 per cent 2 room tenements and 2 per cent live in dwellings having more than two rooms. These statistics vividly illustrate the miserable conditions of living in slum areas of Ahmedabad City and point out excessive overcrowding in single room tenements situated in unhygienic and insanitary localities.

194. Various measures taken to improve the housing condition of workers include construction of 5,000 tenements during the Third Five Year Plan. This scheme known as Subsidised Industrial Housing Scheme is being implemented through the Gujarat Housing Board and Co-operative Societies of industrial workers and employers. 3,694 houses have been constructed during the first two years of the Third Plan. Ahmedabad Municipal Corporation has also put up 1,872 tenements under the Slum Clearance Scheme in the Second Plan. The Urban Community Development Programme at Ahmedabad under the Ford Foundation Scheme is another important scheme aiming at improving the living conditions of the city in general and working classes in slum areas in particular.

Family Budgets and Living Conditions of Industrial Workers

195. In the ultimate analysis, it is the levels of income and expenditure which determine the conditions under which certain sections of the people live. In the absence of other data which throw light on the living conditions of working classes, results of the family budget enquiries conducted from time to time yield valuable data for an analysis of the levels of living of a particular group of population and serve as useful indicators for a comparative study about the cost of living and shift in income or expenditure pattern. The findings of two family budget enquiries of industrial labour in Ahmedabad City conducted in 1944-45 and 1958-59 are compared below.

Average monthly income and expenditure per family and per capita

(In Rs.)

	1944–45	1958–59
Average monthly income per family	134.36	152.10
Average monthly expenditure per family	95.96	149.87
Average monthly income *per capita*	31.04	39.92
Average monthly expenditure *per capita*	22.16	39.33

196. During the course of last 14 years, the average monthly income and expenditure per family and *per capita* show a rising trend. The average monthly income per family and *per capita* has increased from Rs. 134.36 and Rs. 31.04 in 1944-45 to Rs. 152.10 and Rs. 39.92 in 1958-59 and registered a rise of 13.20 and 28.61 per cent respectively. The corresponding figures for average monthly expenditure have risen from Rs. 95.96 and Rs. 22.16 to Rs. 149.87 and Rs. 39.33, that is to say by 56.18 and 77.48 per cent respectively.

197. The table given below describes expenditure pattern under broad groups of budgetary items under the two enquiries aforementioned.

STATEMENT XII.70

Average monthly expenditure by selected groups of items, 1944–45 and 1958–59

(In Rs.)

Group of items	1944–45		1958–59	
	Average monthly expenditure	Percentage to total monthly expenditure	Average monthly expenditure	Percentage to total monthly expenditure
1	2	3	4	5
Total	**95.96**	**100.00**	**149.87**	**100.00**
Food	50.61	52.73	86.21	57.52
Fuel and lighting	8.63	8.99	8.98	5.99
Clothing, Footwear and Umbrella	14.03	14.62*	18.15	12.11
House rent	5.18	5.40	8.52	5.69
Miscellaneous	17.51	18.26	28.01	18.69

*Including amount spent on bedding and household necessities.

Source :

1 Report on *Enquiry into family Budget of Industrial Workers in Ahmedabad* 1944–45, Table 20, p. 28.

2 Report on *Family Living Survey among Industrial Workers*, 1958–59.

The expenditure under 'food' has risen by 70.34 per cent in 1958-59 over the amount spent in 1944-45. This is but natural in view of the rising level of prices during the period covered by these two enquiries. Food costs much more than ever before and appreciably reduces the amount available for other items of expenditure. The percentage under 'fuel and lighting' has dwindled down from 8.99 in 1944-45 to 5.99 in 1958-59 though the actual amount spent is very nearly the same. In these enquiries, the components under groups other than food and fuel and lighting are not the same but different, e.g., data regarding bedding and household necessities are collected as a separate group in 1944-45, but not in 1958-59. In view of this, as well as in view of rise in the level of prices

during the period following the first survey, the data are not strictly comparable. They are, however, useful for broad comparisons and assessing general trends. The pattern of expenditure in the rest of the groups relating to clothing, footwear, housing and miscellaneous as disclosed by both the enquiries has not shown any wide difference in the percentage they bear to the total expenditure, though the actual amount a worker is called upon to spend has appreciably increased owing to higher prices during the intervening period. Comparatively greater rise on miscellaneous items may, however, be taken to indicate more money spent these days after items other than food, clothing and housing. Average expenditure per family has increased at a rate much faster than the income owing to rise in the level of prices, leaving a much smaller margin between the two. It indicates improvement neither in the economic condition nor in the general level of living of the working classes which seems to have changed but little after a lapse of a decade and a half. But the higher rate of increase in the monthly income *per capita* may be reasonably taken to indicate increase in the former number of earners in a family.

198. Additional data relating to some aspects of living were collected during the course of 1958-59 Family Living Survey and related to sampled families. Among industrial workers in Ahmedabad City, about 57 per cent of those aged 5 years and above were illiterate and about 40 per cent had received education upto or below primary standard. 90.42 per cent of the working class families were living in *chawls*, mostly *pucca* private buildings, 81.67 per cent of dwellings used kerosene, 17.08 per cent electricity for light and 12.08 per cent of dwellings had a separate kitchen. In majority of cases (79.17 per cent) the water-tap was outside the dwelling. As regards provision of latrine facilities, 7.08 per cent had no latrine, 9.58 per cent were provided with individual latrine facility and 83.34 per cent had this facility in common with other families. Most of the employee members of the sampled families were in permanent employment in factories. The length of service of 85 per cent among them was 5 years or more. About 66 per cent of them were working in shifts by rotation and about 19 per cent in day shifts. 89 per cent of the employees were covered by the Employees' Provident Fund Scheme.

Literacy and Education among Workers

199. Levels of education and literacy among workers under the two industrial categories of household industry and manufacturing other than household industry as returned by the 1961 Census also provide a measure of cultural advancement among workers. The percentage of literate workers to total workers under these two categories in urban areas is 63.57 as against 34.69 in rural areas. Relatively higher extent of literacy for workers engaged in manufacturing activities in urban areas shows its greater need in towns than in villages. These two industrial categories jointly claim 34.60 per cent of total urban literate workers in the State.

These figures show a distinct improvement in the acquisition and spread of literacy among those engaged in manufacturing industries in towns as compared to those in the countryside.

Employment Potential

200. One of the major aspects of planning is to provide employment to unemployed and underemployed persons. Considerable stress has been laid on the employment aspects of schemes framed in each successive Five Year Plan. It will, therefore, be interesting to find out the employment potential generated during the Second and Third Five Year Plans of Gujarat. The State Bureau of Economics and Statistics has made a special study of this subject, the results of which are published in its *Quarterly Bulletin*, Vol. II, No. 4, October–December, 1962. Some of the important conclusions arrived at are reproduced below in brief.

Methodology

201. Despite such limitations as want of availability of expenditure directly incurred by the Central Government on schemes executed by that Government in the State as also the extent of investment by the private sector within the State, the Bureau of Economics and Statistics has adopted the following method to work out the employment potential.

"The first step is to separate out the Plan schemes into construction or continuing schemes. Each construction scheme may also have a continuing component in terms of maintenance, repairs, etc., expenditure provided in the Plan. The second step is to fix the norms of employment for each of these construction and continuing schemes. Having done this the norm of employment multiplied by the expenditure amount gives the employment potential of the schemes. In the case of construction activity, it is the difference between expenditure to be incurred on a scheme in the last year of the current Plan and the expenditure actually incurred in the last year of the previous Plan, that is taken as the employment generating amount. Hence, in the case of spill-over construction scheme, it is to this difference that the norm of employment is applied. In the case of a new construction scheme, it is to the expenditure planned to be incurred in the last year of the current Plan period that the norm is applied, the expenditure of last year of the previous Plan being naturally nil."

202. By this method only additional employment as at the end of rather than during the current Plan period is obtained. The Bureau of Economics and Statistics has worked out employment likely to have been generated during the Second and estimated the employment potential generated during the Third Five Year Plan for each of the costruction and continuing phases of the schemes, in following terms.

(In lakhs)

	Third plan	Second plan
1 Direct employment in non-agricultural sector (continuing and construction)	2.30	1.36
2 Indirect employment in non-agricultural sector @ 6% of direct employment . . .	1.29	0.76
3 Additional employment in the agricultural sector . . .	1.52	0.55
Total employment likely to be generated during the Plan period	**5.11**	**2.67**

Source:

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. II, No. 4, October-December, 1962

The following table gives the percentage of allocation and employment under each head of development.

STATEMENT XII.71

Percentage of allocation and employment under each head of development

Head of development	Per cent of allocation	Per cent of employment
1	2	3
1 Agricultural programmes	16.74	25.19
2 Cooperation and Community Development .	8.25	10.22
3 Irrigation and Power .	41.88	24.85
4 Industries and Mining	3.16	4.88
5 Transport and Communications . .	9.23	3.51
6 Social Services .	20.31	31.08
7 Miscellaneous .	0.43	0.27
Total	**100.00**	**100.00**

Source :

Quarterly Bulletin, Bureau of Economics and Statistics, Vol. II, No. 4 October-December, 1962

203. The highest employment likely to be generated comes to 31.08 per cent under the head "social services" against an allocation of 20.31 per cent. The highest allocation is, however, under irrigation and power (41.88 per cent), the contribution of which to the total employment is only 24.85 per cent.

ADDITIONS TO THE LABOUR FORCE DURING THE SECOND AND THIRD PLAN PERIODS

204. The Paper sums up the final position by the following concluding remarks:

"With the above discussions regarding the employment prospects of the Second and Third Five Year Plans, it is interesting to estimate the number of new entrants to the labour force during these periods. On the basis of the population growth rate revealed by the 1951 and 1961 Population Censuses, the population of the State at the beginning of the Second Plan is estimated to be 18.51 millions. It was 20.62 millions at the end of the Second Plan. Employing the same rate of growth of population it is estimated that the population of Gujarat State at the end of the Third Five Year Plan will be 23.22 millions. The State sample of the

National Sample Survey (14th round, i.e., 1958–59) has indicated that 42.45 per cent of the total population constitute the labour force. On this observation the number of new entrants to the labour force during these Plan periods is placed at 9.8 lakhs and 11.00 lakhs respectively.

As against this figure of 11 lakhs the employment likely to be generated by the activities within the frame-work of the State's Third Five Year Plan will be about 5.11 lakhs. The difference of slightly less than 6 lakhs will have to be covered by the private sector's and the Central Government's direct investments in Gujarat State territories, if atleast all new entrants to the labour force have to be absorbed, let alone the back-log of unemployment at the beginning of the Third Five Year Plan period."

205. As the reference date for the census was 1st March, 1961, it will be interesting to compare the estimates of employment generated at the end of the Second Plan period with the figures of non-workers and persons unemployed aged 15 and above enumerated by the Census of 1961. The following table gives these figures by broad age-groups.

Total non-workers, 1961

	Persons	Males	Females
Total	**12,158,762**	**4,948,126**	**7,210,636**
0–14	8,233,391	4,261,578	3,971,813
15–34	2,169,110	441,040	1,728,070
35–59	1,142,553	81,131	1,061,422
60+	609,055	162,126	446,929
Age not stated	4,653	2,251	2,402
Aged 15 +	3,925,371	686,548	3,238,823

Unemployed aged 15 and above

	Males	Females
Total	**62,488**	**1,370**
Rural	17,876	450
Urban	44,612	920

206. The Bureau has estimated the number of new entrants into the labour force at the end of the Second Plan period at 9.8 lakhs. Against this the estimate of number of jobs created during the Second Plan is 2.67 lakhs. The difference of 7.13 lakhs has, therefore, to be made good by the private sector and the Central Government schemes which must absorb 6.5 lakhs *plus* back-log of the First Five Year Plan. Non-workers aged 15 and over claim 686,548 males and 3,238,823 females among whom 62,488 males and 1,370 females are returned unemployed at the Census of 1961. The disparity between the two sets of figures as well as between the sexes is very striking indeed and arises from the socio-economic condition prevalent in the State. While working out the number of entrants into labour force, it should be remembered that most of the non-workers do not return themselves as unemployed. It is a characteristic of the females that most of them do not prefer to be employed gainfully as they feel that their functions are restricted to household duties. This will be apparent from the fact that out of 3,238,823 females aged 15 and above only 1,370 have returned themselves as unemployed. Among male non-workers also, underemployment rise in the age of entry into active work, and existence of student population vitiate any comparison between the total unemployed males (62,488) and non-working males aged 15 and above (686,548). But these figures compare well, when the male non-workers in age-group 35–59 only (81,131) are taken into account.

SECTION 15

MINING

Mineral Wealth

207. Till recently it was generally believed that Gujarat was poor in mineral wealth as there was no mining industry worth the name in this part of the country, and the only activity in this sector was restricted to quarrying of stones, sand, clay, etc. But this myth has been exploded as a result of geological investigations carried out during the post-Independence period. It can now be stated with confidence that the non-metallic wealth of Gujarat is not only substantial but more diversified as compared to some of the other States of the country. Gujarat leads in the production of bauxite, agate and salt and stands second in china-clay and third in calcite. Other major minerals produced in the State are manganese ore, limestone, fireclay, etc., with promise for large deposits of lignite and fluorite which have recently come to light. While the production of salt which was 16.91 lakh tons in 1957 stepped up to 18.08 lakh tons in 1961, that of bauxite, mainly found in the districts of Jamnagar and Kaira, ascended to 2.49 lakh tons in 1961 from 0.23 lakh tons in 1957. Corresponding increases have also taken place in the extraction of calcite in Jamnagar from 1,093 tons in 1957 to 1,494 tons in 1961 and that of china-clay which registered an increase of 11 per cent in Mehsana district and 447.80 per cent in Sabarkantha district during the past quinquennium. But the most important of all is the placing of Gujarat on the oil map of the country owing to the vast possibilities revealed for the exploitation of mineral oil and natural gas, particularly in Cambay and Anklesvar fields and others that are being prospected at different places in the State. Owing to the increase in their output, the original programme for refining crude oil has to be now revised by raising the capacity of the Koyali Refinery Plant from 2 million to 3 million tons per annum. The table given below shows mineral production in the State between 1956 and 1961 and confirms the observations made above about the increase in production registered by various mineral industries.

STATEMENT XII.72

Mineral production

(Base year 1956=100 except for dolomite and feldspar for which base year 1960=100)

(In tons)

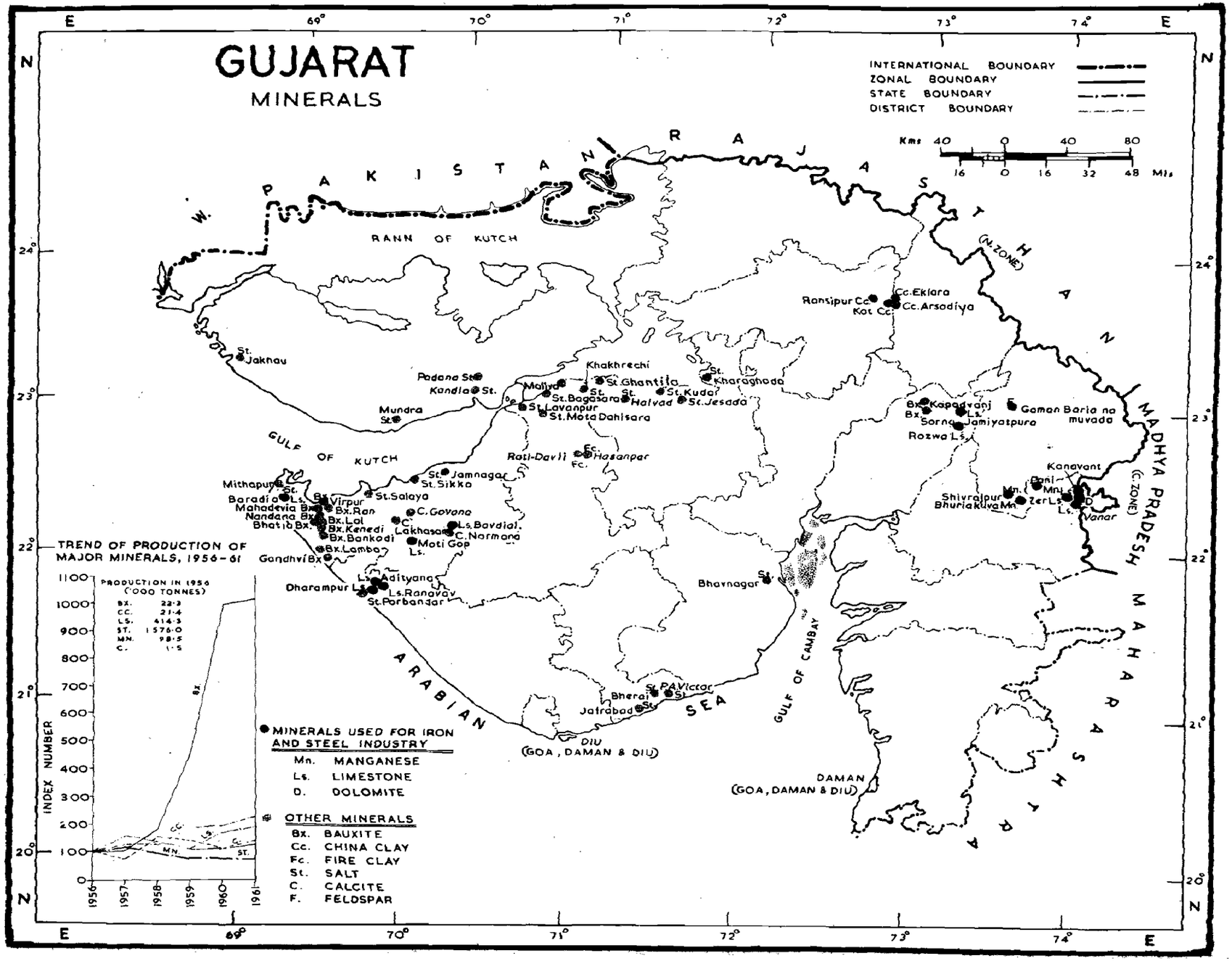
Name of mineral industry	1956		1957		1958		1959		1960		1961	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9	10	11	12	13
Bauxite	22,319	100	22,609	101	39,942	179	100,804	452	222,862	999	249,517	1,118
Calcite	1,504	100	1,093	73	2,305	153	2,059	137	1,625	108	2,090	139
China-clay	21,375	100	24,240	113	23,495	110	38,471	180	40,018	187	47,655	223
Dolomite	..	..	..	..	..	..	..	..	228	100	4,441	1,948
Feldspar	..	..	..	..	..	..	..	..	271	100	68	25
Fireclay	3,091	100	..	..	..	..	..	..	723	23	11,120	360
Limestone	414,284	100	623,058	150	551,482	133	439,806	106	685,894	166	763,874	184
Manganese ore	98,480	100	104,780	106	91,870	93	69,288	70	77,008	78	73,907	75
Salt	1,576,000	100	1,691,000	107	2,080,000	132	1,659,000	105	1,609,000	102	1,808,400	115

NOTE :

1. Data from 1951 to 1955 are not available.
2. The target for 1965 is not available.

Source :

Director of Geology and Mining, Gujarat State


GUJARAT
MINERALS
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
RANN OF KUTCH
RAJASTHAN
(N. ZONE)
MADHYA PRADESH
MAHARASHTRA
(C. ZONE)
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
DIU
(GOA, DAMAN & DIU)
DAMAN
(GOA, DAMAN & DIU)
St. Jakhau
Padana St.
Kandla St.
Mundra St.
Mallya St.
Khakhrechi St.
St. Ghantila
St. Bagasara
St. Lavanpur
St. Mota Dahisara
St. Kharaghoda
St. Kudai
Halvad St.
St. Jesada
Ransipur Cc.
Kot Cc.
Cc. Eklara
Cc. Arsodiya
Bx. Kapadvanj
Bx. Sorna
Ls. Jamiyatpura
Rozwa Ls.
Gaman
Baria na muvada
Rati-Davli Fc.
Hasanpar Fc.
Mithapur St.
Boradia Ls.
Mahadevia Bx.
Nandana Bx.
Bhatia Bx.
Jamnagar St.
St. Sikka
Bx. Virpur
St. Salaya
Bx. Ran
C. Govana
Bx. Lal
Bx. Kenedi
Bx. Bankodi
Lakhasar C.
Ls. Bavdial
C. Narmana
Moti Gop Ls.
Gandhvi Bx.
Bx. Lambao
Dharampur Ls.
Ls. Adityana
Ls. Ranavav
St. Porbandar
Bhavnagar St.
Kanavant Dol.
Mn.
Ls.
D.
Vanar
Shivrajpur Mn.
Bhuriakuva Mn.
Zer Ls.
St. P.A. Victor St.
Bherai St.
Jafrabad St.
TREND OF PRODUCTION OF MAJOR MINERALS, 1956-61
PRODUCTION IN 1956 ('000 TONNES)
Bx. 22·2
Cc. 21·4
Ls. 414·3
St. 1576·0
Mn. 98·5
C. 1·5
INDEX NUMBER
1100
1000
900
800
700
600
500
400
300
200
100
0
1956
1957
1958
1959
1960
1961
Bx.
Cc.
Ls.
Mn.
St.
MINERALS USED FOR IRON AND STEEL INDUSTRY
Mn. MANGANESE
Ls. LIMESTONE
D. DOLOMITE
OTHER MINERALS
Bx. BAUXITE
Cc. CHINA CLAY
Fc. FIRE CLAY
St. SALT
C. CALCITE
F. FELDSPAR

208. Among the recent finds, dolomite has shown a tremendous rise in the index of production, which has risen from 100 in 1960 to 1948 in 1961. The production of feldspar has shown a substantial decline in 1961 over the initial production of 1960. The only mineral which has registered a decline in its former production is manganese ore owing to the foreign competition which it has now to withstand. All the other minerals have shown substantial progress as shown by the index of production, which can be termed remarkable in case of bauxite and dolomite.

REGIONAL DISTRIBUTION

209. District-wise distribution and extent of increase in production as revealed by various indices given in Statement XII.73 on the next page also tells the same story as regards the extraction of these minerals in different areas of the State.

The geographical distribution of the various minerals shows that while bauxite is important in Jamnagar and Kaira, its production has shown a stupendous rise in Jamnagar where the index of production has risen from 100 in 1957 to 2,031 in 1961. Calcite which was originally extracted in Jamnagar only is now extracted also in Amreli and Rajkot. China-clay is extracted in Mehsana and Sabarkantha, the latter vying with the former in the matter of output which has gone up more than five times during the past quinquennium, as against an increase of only 11 per cent in Mehsana. Rajkot, Surendranagar and Sabarkantha have started exploitation of fireclay only since 1961. Whereas limestone is important in Baroda, Kaira, Junagadh and Jamnagar, manufacture of salt has made notable progress at Bhavnagar, Amreli, Junagadh and Jamnagar. If some of the districts are not fortunate enough to fall in line with others in the exploitation of minerals, it is so not because they have no such mineral but because they have not so far had the benefit of a survey which would bring their latent resources to light.

MINERAL RESOURCES OF GUJARAT

210. The State of Gujarat has not been geologically surveyed on modern lines to any large extent. If the Geological Survey of India takes up this work systematically and prepares a modern geological map of the State, its survey is likely to lead to the finding of new minerals as in the case of natural gas and petroleum products. A brief account of important mineral resources of Gujarat is given below.

Bauxite

211. Bauxite is the chief ore of aluminium and its most important deposits are located in Kalyanpur mahal of Jamnagar district. The probable reserves are estimated at 10.2 million tonnes. Kutch also possesses bauxite deposits estimated at a minimum of 6.6 million tonnes, two-third of which is expected to be of high grade. Deposits of bauxite in Kaira district are being used by the Associated Cement Company in the manufacture of cement. Deposits reported from Banaskantha are under examination of the Geological Survey of India. Low grade bauxite is found from Rajpipla and Surat.

Manganese Ore

212. Large deposits of manganese ore are found in the Panchmahals and Baroda districts which are being exploited since 1905. Reserves of shipping grade are estimated at 2.92 million tonnes. The area adjacent to the present mines is being surveyed and it is expected that more reserves will come to light.

Copper Ore

213. Copper ore is believed to exist near Ambaji in Banaskantha district, Bhayavadar in Rajkot district and Sankheda taluka in Baroda district. The extent requires to be assessed by deep drilling.

Iron-Ore

214. The deposits of iron-ore are reported to occur near Jambughoda in the Panchmahals district. Lateritic iron-ores are in abundance in Jamnagar, Porbandar, Junagadh and Bhavnagar. Similar ores also occur in Kutch district. Detailed survey is necessary to find out the quality and volume of these deposits.

Limestone

215. Large deposits of limestone occur near Ranavav in Peninsular Gujarat. The reserves near Jafrabad are estimated at 65 million tonnes.

Crystalline limestone exists in Sabarkantha

STATEMENT XII.73

Production of major minerals

(In tons)

Name of mineral industry	Name of district	1957		1958		1959		1960		1961	
		Actual	Index	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9	10	11	12
Bauxite	Jamnagar	11,327	100.00	29,757	262.71	94,783	836.79	208,131	1,837.48	230,049	2,030.98
	Kaira	11,282	100.00	10,185	90.28	6,021	53.37	14,731	130.57	19,468	172.56
Calcite	Jamnagar	1,093	100.00	2,305	210.89	2,059	188.38	1,625	148.67	1,494	136.69
	Amreli	..	..	..	..	..	..	..	..	230	100.00
	Rajkot	..	..	..	..	..	..	..	..	366	100.00
China-clay	Mehsana	19,508	100.00	19,507	99.99	20,183	103.46	24,654	126.38	21,733	111.41
	Sabarkantha	4,732	100.00	3,988	84.28	18,288	386.48	15,364	324.68	25,922	547.80
Fireclay	Rajkot	..	..	..	..	..	..	723	100.00	7,594	1,050.35
	Surendranagar	..	..	..	..	..	..	..	..	3,030	100.00
	Sabarkantha	..	..	..	..	..	..	..	..	496	100.00
Gypsum	Jamnagar	..	..	..	..	..	..	..	..	259	100.00
Limestone	Baroda	..	..	..	..	..	..	1,600	100.00	2,313	144.56
	Kaira	393,024	100.00	340,010	86.51	373,777	95.10	372,865	94.87	382,934	97.43
	Junagadh	..	..	5,666	100.00	19,411	342.59	125,307	2,211.56	218,203	3,851.10
	Jamnagar	230,034	100.00	205,806	89.47	469,618	204.15	186,122	80.91	160,424	69.74
Manganese	Baroda	8,368	100.00	6,282	75.07	6,995	83.59	11,907	142.29	11,711	139.95
	Panchmahals	96,412	100.00	85,588	88.77	62,293	64.61	65,101	67.52	62,196	64.51
Salt*	..	1,691,000	100.00	2,080,000	123.00	1,659,471	98.14	1,609,303	95.17	1,808,400	106.94
Agate	Broach	..	..	..	..	..	..	..	..	3,004	100.00
	Kutch	..	..	..	..	..	..	..	..	18	100.00
Dolomite	Baroda	..	..	..	..	..	..	..	..	4,411	100.00
Feldspar	Panchmahals	..	..	..	..	..	..	..	..	68	100.00
Plastic clay	Surat	..	..	..	..	..	..	..	..	11,465	100.00
Pipeclay	Sabarkantha	..	..	..	..	..	..	..	..	2,827	100.00
Quartz	Panchmahals	..	..	..	..	..	..	..	..	10,530	100.00
Sea-sand	Jamnagar	..	..	..	..	..	..	..	..	357,031	100.00
White chalk	Jamnagar	..	..	..	..	..	..	..	..	684	100.00

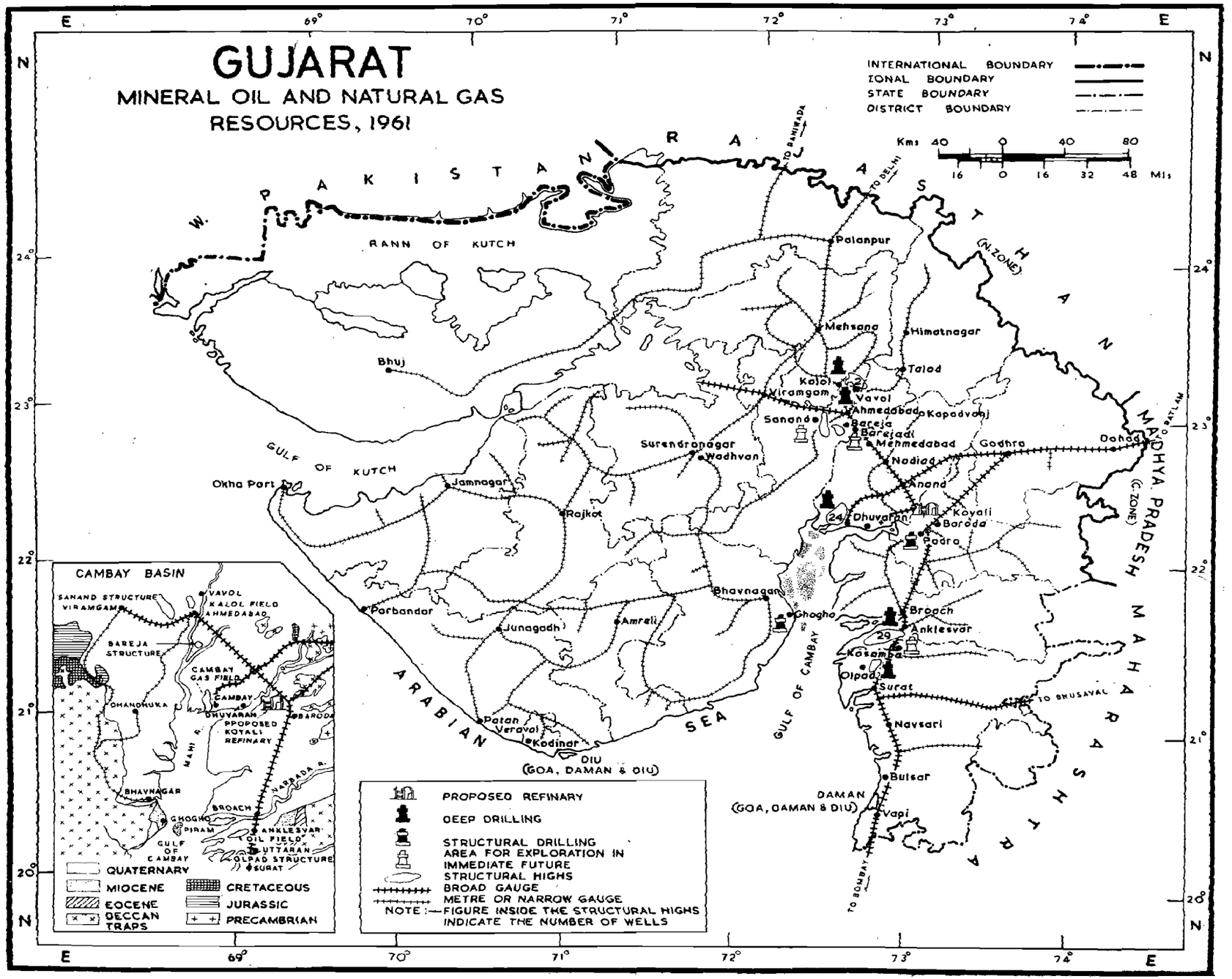
*District-wise figures are not available.

NOTE :

1. Data for the years 1950 to 1956 are not available.
2. The target for 1965-66 is not available.

Source :

1. Director of Geology and Mining, Gujarat State
2. Director, Indian Bureau of Mines, Delhi
3. Salt Commissioner to Government of India


GUJARAT
MINERAL OIL AND NATURAL GAS RESOURCES, 1961
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
RANN OF KUTCH
GULF OF KUTCH
ARABIAN SEA
GULF OF CAMBAY
RAJASTHAN
MADHYA PRADESH
MAHARASHTRA
GUJARAT
DAMAN (GOA, DAMAN & DIU)
DIU (GOA, DAMAN & DIU)
TO BANIHADA
TO DELHI
TO BATLAM
TO BHUSAVAL
TO BOMBAY
(N. ZONE)
(C. ZONE)
Palanpur
Mehsana
Himatnagar
Bhuj
Talod
Kalol
Viramgam
Vavol
Ahmedabad
Kapadvanj
Sanand
Bareja
Barejadi
Mehmedabad
Godhra
Dohad
Surendranagar
Wadhvan
Nadiad
Okha Port
Jamnagar
Anand
Rajkot
Dhuvaran
Kayali
Baroda
Padra
Bhavnagar
Porbandar
Junagadh
Amreli
Ghogho
Broach
Ankleshvar
Kosamba
Olpad
Surat
Patan Veraval
Kodinar
Navsari
Bulsar
Vapi
CAMBAY BASIN
SANAND STRUCTURE
VIRAMGAM
VAVOL
KALOL FIELD
AHMEDABAD
BAREJA STRUCTURE
CAMBAY GAS FIELD
CAMBAY
DHUVARAN
BARODA
PROPOSED KOTALI REFINARY
CHANDKUKA
MAHI R.
NARMADA R.
BHAVNAGAR
BROACH
GHOGHO
PIRAM
ANKLESVAR OIL FIELD
UTTARAN
OLPAD STRUCTURE
SURAT
GULF OF CAMBAY
QUATERNARY
MIOCENE
EOCENE
DECCAN TRAPS
CRETACEOUS
JURASSIC
PRECAMBRIAN
PROPOSED REFINARY
DEEP DRILLING
STRUCTURAL DRILLING
AREA FOR EXPLORATION IN IMMEDIATE FUTURE
STRUCTURAL HIGHS
BROAD GAUGE
METRE OR NARROW GAUGE
NOTE :—FIGURE INSIDE THE STRUCTURAL HIGHS INDICATE THE NUMBER OF WELLS

and Banaskantha districts. The reserves are estimated at 71.1 million tonnes of lime suitable for cement manufacture. Ambaji region of Banaskantha district is known to contain large deposits of cement grade limestone. It is also known to occur in Kaira, Broach, Surat and Kutch districts.

Marble

216. Marble is found near Ambaji in Banaskantha and the Panchmahals districts.

Fluorite

217. Geological Survey of India has estimated a reserve of 2.0 million tonnes of fluorspar rock near Amba Dungar in Baroda district. The said rock has got 20 to 50 per cent fluorite.

Calcite

218. The deposits of calcite are found in Amreli, Bhavnagar, Rajkot, Junagadh and Jamnagar districts.

Fireclay and China-clay

219. There are large deposits of fireclay in Bhavnagar, Junagadh, Rajkot, Surendranagar and Sabarkantha districts.

The deposits of china-clay are found in Mehsana and Sabarkantha districts.

Gypsum

220. The Rann area of Jamnagar is estimated to contain 3,837,000 tonnes of gypsum. The reserves in different parts of Kutch are estimated at 2.0 million tonnes.

Glass Sand, Quartz and Feldspar

221. The deposits of glass sand and quartz are found in Baroda and the Panchmahals districts. They are used extensively in the glass industry at Baroda. Sabarkantha and the Panchmahals districts contain some feldspar deposits.

Agate

222. Raw agate stones are found in plenty near Rajpipla in Broach district and little Rann of Kutch.

Asbestos

223. Deposits of asbestos are found in Sabarkantha district. Detailed examination requires to be carried out.

Lignite

224. Lignite which can be used as a substitute for coal is available in north-west Kutch. The reserves are estimated at about 10.2 million tonnes. It is also believed to exist in Broach district.

Petroleum and Natural Gas

225. Investigations by the Oil and Natural Gas Commission have revealed an oil belt of about 161 km. running from Anklesvar to Cambay. Drilling operations carried out near Anklesvar have resulted in the demarcation of extensive oil-fields. Production of petroleum oil has already commenced since 15th August, 1961. Oil is generally accompanied by natural gas under high pressure. Gas has been encountered at Lunej, Cambay and Mahuvej near Anklesvar. Existence of oil has also been revealed at Shertha near Ahmedabad. Gujarat is likely to be benefited by this important mineral wealth of petroleum oil and natural gas.

Four more oil-fields which can rank among the largest in the world have been located in the Gulf of Cambay. This vast hydrocarbon oil-bearing structure is expected to yield large quantities of oil and augment our foreign exchange resources to a substantial extent.

GENERAL SUMMARY

226. The relative importance of mining, manufacturing and agriculture has already been examined at the outset while discussing the contribution that each of these industrial categories has made to the working force in Gujarat, as also while examining the income generated by each of them. These figures as well as indices of production point out in no uncertain terms the primary importance of agriculture in the economic structure of the State as contributing 46.50 per cent of the total income generated in 1960-61, as against 14.69 per cent by factory establishments, the contribution made by mining being so far quite insignificant, namely, 0.67 per cent. There are, however, definite indications of improvement in the existing pattern in the years ahead owing to the intensive

economic activities undertaken and proposed to be undertaken in all the three sectors of the State economy. Improvement in farming practices will doubtless lead to the increase in output or yield per acre, presenting at the same time still greater possibilities not only for the expansion of existing agro-based industries but also for the establishment of new ones. The extension of dairy industry to other parts of the State will need improvement of the existing breed of cattle and introduction of a number of measures aiming at bettering the economic condition of traditional cattle-breeders, which alone can ensure a rise in the yield of milk and milk products.

227. In the field of manufacture, the only industries which have scope for expansion are in the categories of what may be called large-scale and small-scale. Those which are operated on the traditional basis as cottage or village industries will have chance of survival only if they adopt factory basis of work. Otherwise there is every possibility of their being swept away in the face of growing competition of machine-made goods. Even today the food processing industries which were formerly plied on a household basis have lost their ground to mechanised processes. The former artisans who were employed either in dehusking, milling or oil-crushing have been practically eliminated. Household industries which have a chance for survival even on a household basis are those of carpenters, shoemakers, tailors, blacksmiths, silversmiths, etc., who also have realised the necessity of adopting improved technique and machinery in their former mode of production.

228. Gujarat has only 9 per cent of its geographical area under forests as against 24 per cent of the country as a whole and is much less than the standard of 33 per cent set up by the National Forest Policy. Forest development is a long term plan which yields results after a number of years. But the efforts for the improvement of forests in Gujarat have not been so far as systematic and intensive as they should have been to make up its large deficit. Greater attention will have, therefore, to be paid in the preparation of the working plans and other related measures aiming at preservation and afforestation.

229. Another branch of industry which has a bright future is the development of fisheries. Though the progress made so far may not be considered satisfactory in view of the high potential of fish production offered by its long coast-line, the results achieved so far are nonetheless appreciable in view of the fact that this industry received scant attention in the past for sentimental reasons. Various schemes formulated for the development of fishing industry will in course of time increase considerably the total catch of fish in the State. Fish curing, fish meal and fish manure, manufacture of shark liver oil, fish canning and setting up of plants for fish freezing are some of the directions in which future development is indicated.

230. As the State of Gujarat has not been surveyed geologically, existence of a very few minerals such as limestone, fireclay, china-clay and glass sand was known so far and utilised for industrial production. The only industries that have come up so far are (i) the cement factories utilising limestone from Saurashtra region situated at Dwarka, Porbandar, Sikka and Ranavav and one situated at Sevalia in Kaira district, (ii) chemical industries, viz., Tata Chemicals Ltd. at Mithapur, the Saurashtra Chemicals Ltd. at Porbandar and the Dhrangadhra Chemicals Ltd. at Dhrangadhra manufacturing soda ash, calcium chloride, sodium bicarbonate, etc., from limestone, (iii) ceramic industries at Than, Morvi, Sihor and Jamnagar utilising china-clay, fireclay, etc., and (iv) glass industries at Baroda and Sant Road in the Panchmahals district utilising sand found in those districts.

231. Survey operations recently carried out have disclosed the existence of several other sources of minerals in addition to those mentioned above, which offer a very good scope for expanding existing industries and establishing new ones in the different areas of the State. The most important among them may be listed below:

(1) As soon as adequate and cheap power is available, aluminium industry can be set up in Peninsular Gujarat, where bauxite has been located.

(2) Cement and chemical industries can be established in Banaskantha district where limestone is available.

(3) Industries such as aluminium, chemicals, etc., can come up in Baroda district for utilising the abundant deposits of fluorite or fluorspar rocks found near Amba-Dungar.

(4) Ceramic industries can also be established in Mehsana and Sabarkantha districts where best clay is available.

(5) Factories for the manufacture of fertilizers, sulphuric acid, plaster of Paris, etc., can be set up in Kutch district, where gypsum deposits are available in considerable quantities.

(6) Petro-chemical industries have a great future near Baroda, where by-products of petroleum oil will be available in plenty from Koyali Refinery.

Mining has a great future in Gujarat. As and when the results of the various surveys are made available, new fields and resources will have to be tapped and utilised.

SECTION 16

VILLAGE, HOUSEHOLD AND SMALL INDUSTRIES

Contribution to State Income

232. Industrial activities in the State can be broadly categorised into (i) large-scale, (ii) small-scale and (iii) village or cottage industries worked entirely on household basis. The contribution which large-scale industries make to the State income as well as to the labour force is comparatively much larger than that by any one of these three categories. The position of large-scale or organised industries as well as that of small-scale industries has been examined above. While it is not possible to have a complete idea of the income generated by non-factory industries in Gujarat, the importance and extent of cottage and small-scale industries can be had from the following tables reproduced from State Income Estimates.

STATEMENT XII.74

Number of workers, value added per worker and total value added in cottage industries

Sl. No.	Industry	No. of workers	Value dded per aworker in Rs.	Total value added in Rs. '000
1	2	3	4	5
1	Weaving . .	51,163	532	27,218
2	Dyeing and printing	3,980	1,080	4,298
3	Jari thread work .	3,769	1,831	6,901
4	Blacksmithy .	19,884	850	16,901
5	Metal-works .	21,029	849	17,854
6	Carpentry .	36,081	771	27,818
7	Cane and bamboo products . .	12,941	264	3,416
8	Bricks and tiles .	40,441	261	10,555
9	Other potteries .	52,151	209	10,900
10	Leather working and tanning . .	55,485	400	22,194
11	Oil pressing .	11,002	1,071	11,783
12	Soap making .	1,330	2,081	2,768
13	Match making .	3	460	1

STATEMENT XII.75

Number of workers, value added per worker and total value added in small-scale industries

Sl. No.	Industry	No. of workers	Value added per worker in Rs.	Total value added in Rs. '000
1	2	3	4	5
1	Weaving . .	3,459	3,360	11,622
2	Dyeing and printing	1,578	4,281	6,755
3	Jari thread work .	1,297	3,045	3,949
4	Blacksmithy . .	872	1,907	1,663
5	Metal-works . .	2,063	2,025	4,178
6	Carpentry . .	460	2,019	929
7	Cane and bamboo products . .	14	1,158	16
8	Bricks and tiles .	1,648	6,550	10,794
9	Other potteries .	10	150	2
10	Leather working and tanning . .	120	1,108	133
11	Oil pressing . .	370	6,327	2,341
12	Soap making .	521	2,765	1,441
13	Match making .	..	..	..

Source :

State Income Estimates, 1955-56 to 1960-61, Bureau of Economics and Statistics, p. 41

233. The objectives of the programmes for the development of village and small-scale industries as set out in the Industrial Policy Resolution, 1956 and in the Second Plan are to create immediate and permanent employment on a large-scale at relatively small capital cost, meet a substantial part of the increased demand for consumer goods and simple producer goods, facilitate mobilisation of resources of capital and skill and bring about integration of the development of these industries with the rural economy on the one hand and large-scale industry on the other. The development of village and small-scale industries thus occupies an important place in the programme of economic rehabilitation and will help in providing gainful employment and additional source of income to the village people.

234. Unorganised, widely diffused and dispersed pattern of village and small-scale enterprises acts as one of the serious handicaps in the collection of basic statistical data or indices of the progress achieved during last decade in this sector. The available sources on which estimates can be based include sample surveys conducted by the National Sample Survey and the State Bureau of Economics and Statistics.

235. The survey of cottage and small-scale industries in Gujarat conducted by the State Bureau of Economics and Statistics has already been referred to earlier. It investigated 16 important industries of the State and covered about 3.24 lakhs of persons out of the total working force estimated at 6.11 lakhs in 1960-61. The total estimated value added for these industries amounted to Rs. 21 crores. The income from cottage and small-scale enterprises as estimated by this survey came to about Rs. 28 crores as against the estimates of Rs. 26 crores made by the 14th round of State sample of the National Sample Survey.

236. The number of workers and value added under each type of cottage and small-scale industries are given in the table opposite.

Under village as well as small-scale industries weaving occupies an important place from the viewpoint of employment and value added. Under village industries it accounts for 16.54 per cent of total workers and 16.74 per cent of value added. Corresponding percentages under small-scale industries are 27.87 and 26.52. The next in importance as regards provision of employment in village industries is leather working and tanning (17.94 per cent) and other potteries (16.86 per cent). Under small-scale industries, the order of priority is metal-works (16.62 per cent), bricks and tiles (13.28 per cent) and dyeing and printing (12.71 per cent). As regards value added, carpentry under village industries accounts for 17.11 per cent of the total value, followed by weaving (16.74 per cent) and leather working and tanning (13.65 per cent). Under small-scale industries two industries, namely, weaving and bricks and tiles constitute more than half the total value added by 13 industries.

STATEMENT XII.76

Percentage distribution of workers and value added in cottage and small-scale industries

	Industry	Cottage industry		Small-scale industry	
		No. of workers	Total value added in Rs.	No. of workers	Total value added in Rs.
	1	2	3	4	5
	Total	**100.00**	**100.00**	**100.00**	**100.00**
1	Weaving	16.54	16.74	27.87	26.52
2	Dyeing and printing	1.29	2.64	12.71	15.41
3	Jari thread work	1.22	4.25	10.45	9.01
4	Blacksmithy	6.43	10.39	7.02	3.80
5	Metal-works	6.80	10.98	16.62	9.53
6	Carpentry	11.67	17.11	3.71	2.12
7	Cane and bamboo products	4.18	2.10	0.11	0.04
8	Bricks and tiles	13.08	6.49	13.28	24.63
9	Other potteries	16.86	6.70	0.08	0.01
10	Leather working and tanning	17.94	13.65	0.97	0.30
11	Oil pressing	3.56	7.25	2.98	5.34
12	Soap making	0.43	1.70	4.20	3.29
13	Match making	N	N	0	0

N=Negligible

Source :
State Income Estimates, 1955-56 to 1960-61, Bureau of Economics and Statistics, p. 41

237. The income estimates from small enterprises are presented in Statement XII.77 on the next page for the years 1955-56 to 1960-61 both

at current and constant prices. The base year being 1960-61, it will help a comparative review of the levels of income and rates of growth during the Second Plan period.

238. The levels of income, both at current as well as constant prices show a constant and steady growth from 1955-56 onwards. The income at current prices has increased from Rs. 2,492 lakhs in 1955-56 to Rs. 3,049 lakhs in 1960-61 or 22.35 per cent. The index of income at current prices has registered an increase of nearly 13 points in 1959-60 over the index prevailing in the year 1955-56. The income at constant prices has also shown an upward trend except during the year 1959-60, the overall increase between 1955-56 and 1960-61 being 15.10 per cent.

STATEMENT XII.77

Income estimates from small enterprises, 1955-56 to 1960-61

(Base : 1960-61=100 constant and current prices)

Year	Income at current prices (Rs. in lakhs)	Index of income at current prices	Income at constant prices (Rs. in lakhs)	Index of income at constant prices
1	2	3	4	5
1955-56	2,492	81.75	2,649	86.87
1956-57	2,615	85.76	2,750	90.18
1957-58	2,672	87.63	2,755	90.35
1958-59	2,839	93.11	2,898	95.05
1959-60	2,888	94.72	2,887	94.70
1960-61	3,049	100.00	3,049	100.00

Source:
State Income Estimates, 1955-56 to 1960-61, Bureau of Economics and Statistics, p. 42

SECTION 17

POWER

PROGRESS IN ELECTRIFICATION IN RURAL AND URBAN AREAS

239. The extent of electrification in rural and urban areas of the State in 1950-51, 1955-56, 1960-61 as also on 31st March, 1962 is shown in Statement XII.78 on the next page for the State and districts.

At the commencement of the decade it was the urban areas only which were for the most part electrified, as will be seen from the fact that out of 81 places electrified in 1950-51, 69 were towns and 12 villages. Increasing attention was, however, paid to rural electrification during the past decennium, which shows that as against 137 towns electrified on 31st March, 1962, the number of such villages rose to 784 from 12 in 1950-51. Districts where rural electrification is yet to be extended are the Panchmahals and the Dangs, which did not enjoy this convenience even in 1962. The greatest progress in electrification has, however, been made in the district of Kaira which has 15 towns and 192 villages endowed with this amenity, followed by Surat, Baroda, Rajkot and Kutch, where rural electrification has made some advance after 1951. Whereas Peninsular Gujarat shows greater urban electrification by having 66 out of 137 towns, it is Mainland Gujarat which leads in rural electrification by having 544 or 68.11 per cent of villages covered under this scheme. Even among towns there are 44 places which are yet to be electrified. Rural electrification, however, is a great problem, as the number so far covered is insignificant and forms 4.22 per cent of the total number of 18,584 inhabited villages in the State. The generation of electricity will have, therefore, to be stepped up immensely before the needs of villages can be met. It will require great efforts on the part of the Government and the Gujarat Electricity Board to make up such a huge deficit through long term planning spread over a number of decades. The absence of rural electrification also comes in the way of mechanisation of agriculture, particularly in the field of operation of water-pumps, whose number has been increasing day by day. For, it is rural electrification alone that will help intensive farming and raise the yield of crops by bringing increasing acreage under double crops and staving off the adverse effects of scarcity and famine, to which the State is periodically exposed.

STATEMENT XII.78

Progress in electrification in areas of the State

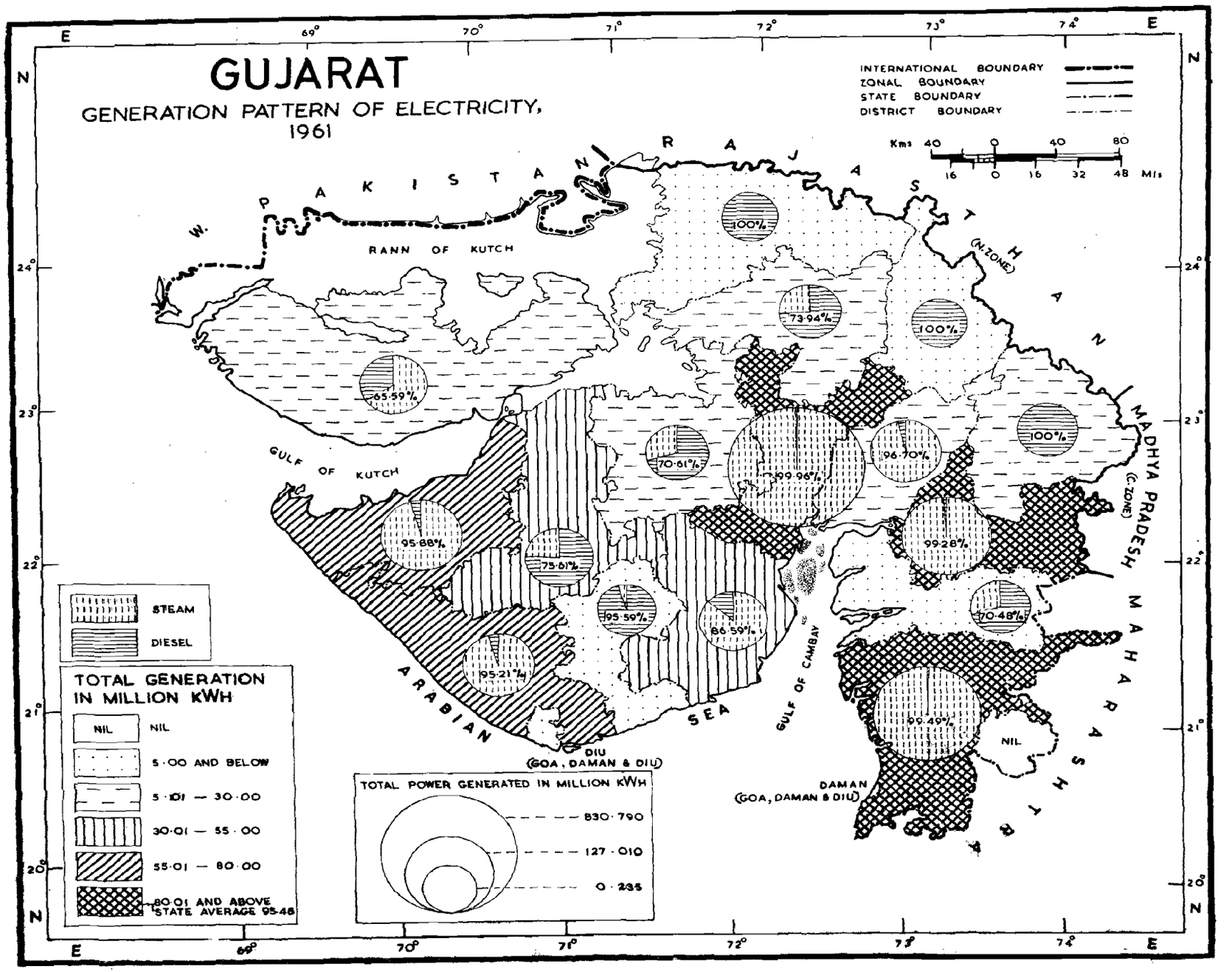
State/District		1950–51	1955–56	1960–61	As on 31-3-1962		
					Total	Electrified by the Gujarat Electricity Board	Electrified by private licencees
1		2	3	4	5	6	7
GUJARAT	**Town**	**69**	**17**	**35**	**137**	**82**	**55**
	Village	**12**	**68**	**505**	**784**	**696**	**88**
1 Jamnagar	Town	4	..	7	12	12	..
	Village	..	..	20	22	22	..
2 Rajkot	Town	6	..	..	9	7	2
	Village	6	7	44	74	74	..
3 Surendranagar	Town	3	2	2	8	5	3
	Village	..	..	4	10	8	2
4 Bhavnagar	Town	2	..	6	9	7	2
	Village	..	..	22	24	24	..
5 Amreli	Town	2	1	5	9	9	..
	Village	..	..	7	10	10	..
6 Junagadh	Town	5	4	5	14	13	1
	Village	..	2	25	31	31	..
7 Kutch	Town	1	1	..	5	4	1
	Village	..	2	56	69	66	3
8 Banaskantha	Town	2	1	..	3	2	1
	Village	..	..	1	1	1	..
9 Sabarkantha	Town	..	1	1	2	2	..
	Village	..	..	1	1	1	..
10 Mehsana	Town	7	..	2	9	2	7
	Village	..	..	37	41	40	1
11 Ahmedabad	Town	8	..	4	12	4	8
	Village	..	4	23	62	41	21
12 Kaira	Town	9	5	..	15	5	10
	Village	..	47	121	192	184	8
13 Panchmahals	Town	4	..	..	5	2	3
	Village	..	..	..	..	..	..
14 Baroda	Town	3	2	..	7	2	5
	Village	..	2	49	84	60	24
15 Broach	Town	3	..	1	4	2	2
	Village	..	..	7	11	11	..
16 Surat	Town	10	..	2	14	4	10
	Village	6	4	88	152	123	29

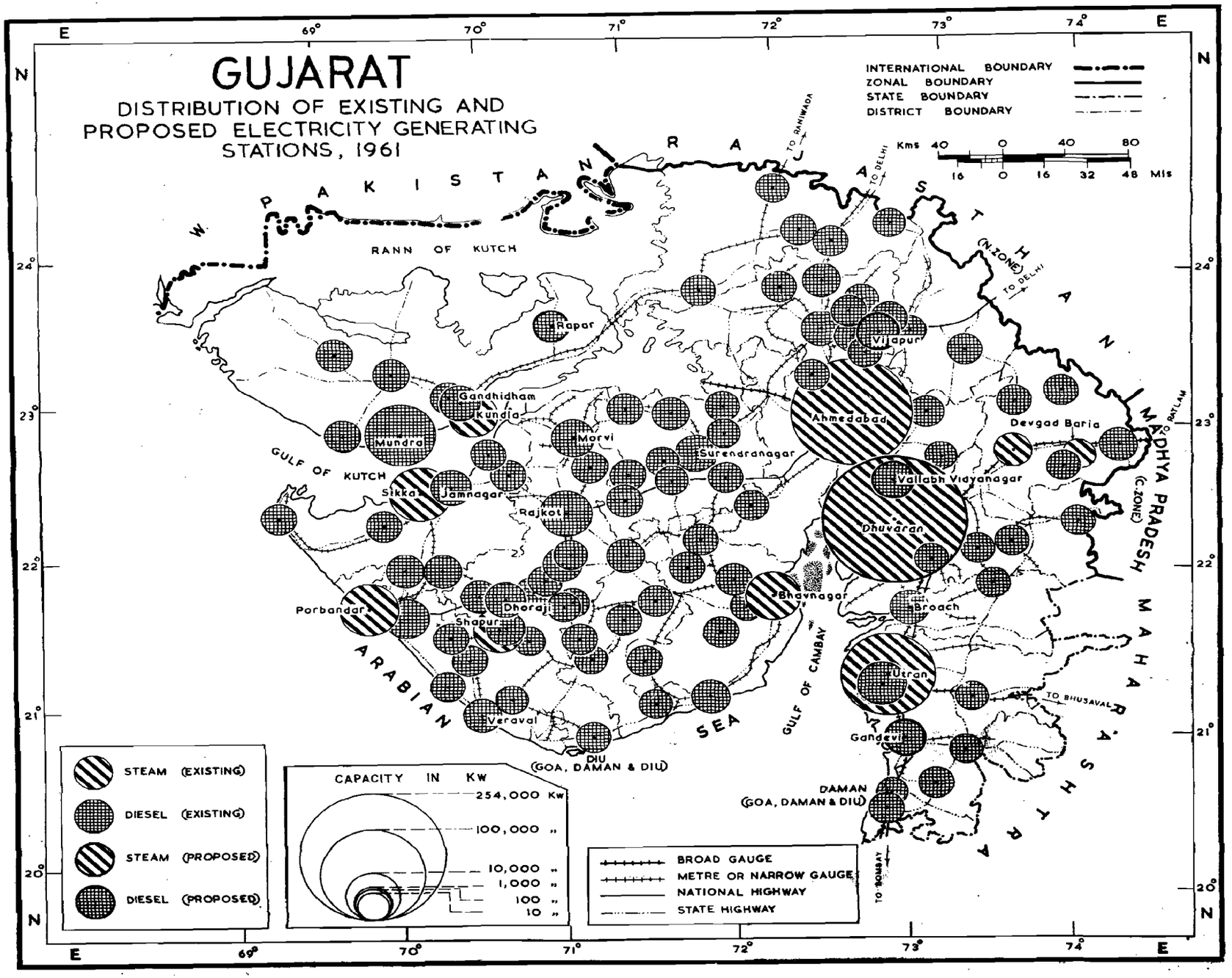
NOTE :

1. Data regarding villages electrified by electricity companies of Kapadvanj and Dabhoi are not available.
2. Data regarding towns and villages electrified by electricity companies of Ranavav, Umbergaon and Tapi-Kathor are not available.
3. Villages shown under col. 2, 3 and 4 are those which are electrified by Gujarat Electricity Board.
4. Number of towns shown under col. 2, 3 and 4 includes the towns electrified by private licencees also.

Source :

1. Gujarat Electricity Board, Baroda
2. *District Census Handbooks*, 1961


GUJARAT
GENERATION PATTERN OF ELECTRICITY, 1961
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
W.
RANN OF KUTCH
RAJASTHAN (N. ZONE)
MADHYA PRADESH (C. ZONE)
MAHARASHTRA
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
100%
73·94%
100%
65·59%
70·61%
99·96%
96·70%
100%
95·88%
75·01%
99·28%
95·59%
86·59%
70·48%
95·21%
99·49%
NIL
DIU (GOA, DAMAN & DIU)
DAMAN (GOA, DAMAN & DIU)
STEAM
DIESEL
TOTAL GENERATION IN MILLION KWH
NIL NIL
5·00 AND BELOW
5·01 — 30·00
30·01 — 55·00
55·01 — 80·00
80·01 AND ABOVE STATE AVERAGE 95·48
TOTAL POWER GENERATED IN MILLION KWH
830·790
127·010
0·235
69°
70°
71°
72°
73°
74°
E
N
24°
23°
22°
21°
20°


GUJARAT
DISTRIBUTION OF EXISTING AND PROPOSED ELECTRICITY GENERATING STATIONS, 1961
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
RANN OF KUTCH
RAJASTHAN
TO RANIWADA
TO DELHI
(N. ZONE)
MADHYA PRADESH
(C. ZONE)
MAHARASHTRA
Rapar
Gandhidham
Kundla
Mundra
Morvi
Surendranagar
Ahmedabad
Vijapur
Devgad Baria
Vallabh Vidyanagar
Dhuvaran
Jamnagar
Sikka
Rajkot
Porbandar
Dhoraji
Shapur
Bhavnagar
Broach
Utran
Gandevi
Veraval
DIU
(GOA, DAMAN & DIU)
DAMAN
(GOA, DAMAN & DIU)
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
TO BHUSAVAL
TO BOMBAY
STEAM (EXISTING)
DIESEL (EXISTING)
STEAM (PROPOSED)
DIESEL (PROPOSED)
CAPACITY IN KW
254,000 Kw
100,000 "
10,000 "
1,000 "
100 "
10 "
BROAD GAUGE
METRE OR NARROW GAUGE
NATIONAL HIGHWAY
STATE HIGHWAY

240. The above review of the generation and distribution of electricity shows an acute shortage of electric power in Gujarat which is coming greatly in the way of the expansion of its industries old and new. This handicap is further accentuated by its high cost owing to thermal generation from coal brought over a long distance. In the year 1955, the *per capita* consumption of electricity for India was 19.65 kWh as against 34.52 for Gujarat which rose to 61.56 for West Bengal and to 50.55 for Maharashtra. The annual rate of growth in 1950–60 has been 9.75 MW for installed capacity and 13.1 million kWh for generation capacity. Corresponding figures for India which are 13 and 15 reveal the backwardness of Gujarat in this respect as compared to the country as a whole. The Commission appointed by the Government of India to undertake the load survey in the country has also expressed concern over acute power shortage in Gujarat by pointing out that the curtailment of peak load in 1961-62 and 1962-63 amounted to 20 MW.

Creation of Installed Generating Capacity

241. Steady progress in the installed generating capacity of the plants is visible from the figures of firm capacity of plant during the decade 1950-51 and 1960-61 given in the table that follows.

STATEMENT XII.79

Creation of installed generating capacity and level of utilisation in the State

1	1950–51 2	1955–56 3	1960–61 4	1965–66 (Target) 5
A—Utilities (public and private)				
1 Hydro Plant :				
(i) Electricity generated in kW (Firm capacity of plant in kW)	..	..	..	..
(ii) kW available per kW of installed generating capacity (Firm capacity of the plant in kW/ installed capacity of the plant in kW)	..	..	..	..
2 Steam Plant :				
(i) Electricity generated in kW (Firm capacity of plant in kW)	72,600	148,500	231,000	486,500
(ii) kW available per kW of installed generating capacity (Firm capacity of the plant in kW/ installed capacity of the plant in kW)	0.773	0.835	0.825	0.787
3 Oil Plant :				
(i) Electricity generated in kW (Firm capacity of plant in kW)	23,400	20,910	18,460	8,000
(ii) kW available per kW of installed generating capacity (Firm capacity of the plant in kW/ installed capacity of the plant in kW)	0.682	0.555	0.676	0.889
4 Electricity received from Tarapore Atomic Plant in kW	..	..	..	75,000
B—Self-generating industrial establishment				
(i) Electricity generated in kW (Firm capacity of plant in kW)	N.A.	27,580	27,250	22,920
(ii) kW available per kW of installed generating capacity (Firm capacity of the plant in kW/ installed capacity of the plant in kW)	N.A.	0.428	0.539	0.542
C—Total				
(i) Electricity generated in kW (Firm capacity of plant in kW)	96,000	196,990	276,710	592,420
(ii) kW available per kW of installed generating capacity (Firm capacity of the plant in kW/ installed capacity of the plant in kW)	0.748	0.741	0.774	0.879

Source : Gujarat Electricity Board, Baroda

N.A.=Not available

242. In the year 1950-51, there was a total capacity of 96,000 kW which rose to 196,990 kW in 1955-56 and shot up to 276,710 kW in 1960-61. The target fixed for the year 1965-66 is 592,420 kW. Individual share of each type of plants shows a total absence of hydro plants and predominance of steam generating plants in the State. In addition to public and private utilities, self-generating industrial establishments made appreciable contribution to the total generation of power in 1955-56. The contribution of steam plants in 1950-51 was 75.63 per cent which fell slightly to 75.38 per cent in 1955-56 and went up to 83.48 per cent in 1960-61. The share of oil plants is found to decline gradually from 24.37 per cent in 1950-51 to 10.62 per cent in 1955-56 and to 6.67 per cent in 1960-61. The self-generating industries which entered the field in 1955-56 contributed 14.0 per cent to the total power generated in that year, which fell to 9.85 per cent in 1960-61. With the further expansion of thermal power and addition available from the atomic power-station at Tarapore, the proportionate contribution of steam plant and self-generating industrial establishments will decline substantially and be insignificant in 1965-66.

243. The ratio of kW available per kW of installed generating capacity for all the sources put together shows that 1960-61 was the most favourable year in this respect when the ratio stood at 0.774 as compared to 0.748 in 1950-51 and 0.741 in 1955-56. With the fulfilment of the target for 1965-66, it will rise still further to 0.879. Taking each source individually the ratio steam plants strikes is the highest.

Consumption of Electricity

244. Statement XII.80 on the next page gives the figures of consumption of electricity according to purpose in million kWh in 1950-51, 1955-56 and 1960-61. The main source of power supply in the State is the Gujarat Electricity Board and a few private concerns. The data available are incomplete and lacking for some of the districts and some of the years, as the Gujarat Electricity Board was formed after 1st May, 1960 when the new State came into existence.

245. Subject to the limitations noted above, expressed in terms of million kWh, the total utilisation of electricity in Gujarat in 1960-61 was 1,366.033 kWh distributed into 73.543 for domestic consumption, 35.494 for commercial light and small power, 891.712 for industrial power and 365.284 for other purposes. Industrial power claims the largest (65.28 per cent) share in the total utilisation of electricity, followed by other purposes (26.74 per cent), its use for commercial light and small power (2.60 per cent) being the least. It is further noticed that the use of electric power is on the increase from one quinquennium to another in all the districts of the State except the Dangs, where electrification was totally absent even in 1960-61. But Banaskantha which had no electricity in 1950-51 got this facility in 1955-56. Domestic consumption is generally seen to vary from one district to another during the decade and is seen to be dependent upon the extent of urbanisation on the one hand and the availability of power on the other. In 1960-61 Ahmedabad accounts for more than one-third of the total domestic consumption. Other districts where this type of consumption is worthy of note are in order Baroda, Surat and Rajkot. Ahmedabad is also in the forefront in the use of commercial light and small power followed by Kaira and Surat at a long distance. The use of industrial power likewise varies, its greatest consumer being Ahmedabad, which accounts for 546.695 million kWh or 61.31 per cent of the electric power consumed under this head. Districts where use of power for industrial purposes exceeds 50 million kWh are Surat, Baroda and Kaira. These also are the four districts where its use for "other purposes" is also comparatively greater. In the overall utilisation of power, the combined share of Ahmedabad, Surat, Baroda and Kaira is as high as 1,053.330 million kWh or 77.11 per cent of the total. The rest is distributed between the remaining districts of the State to a varied extent. While the figures of utilisation of electricity for various purposes indicate the relative extent of industrialisation and urbanisation in the different districts of the State, it also gives an idea of the relative dearth in the various parts of Gujarat, where greater attempts at electrification will be needed in the near future.

STATEMENT XII.80

Consumption of electricity in State and districts according to purpose, 1950–51, 1955–56 and 1960–61

(In million kWh)

State/District	Year	Kilowatt hours sold to public for				
		Domestic consumption	Commercial light and small power	Industrial power	Other purposes	Total utilisation of electricity
1	2	3	4	5	6	7
GUJARAT	**1950–51**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**
	1955–56	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**
	1960–61	**73.543**	**35.494‡**	**891.712**	**365.284**	**1,366.033**
1 Jamnagar .	1950–51	1.163	..	12.760	0.153	14.076
	1955–56	1.922	..	24.740	0.264	26.926
	1960–61	3.907	..	48.970	4.863	57.740
2 Rajkot .	1950–51	2.244*	0.838	3.874	0.782	7.738
	1955–56	3.471*	0.318	6.411	1.251	11.451
	1960–61	7.225	0.190	12.387	4.965	24.767
3 Surendranagar	1950–51	1.299*	0.195	1.633	0.281	3.408
	1955–56	1.683*	0.218	2.197	0.370	4.468
	1960–61	1.433*	0.507	7.098	0.552	9.590
4 Bhavnagar .	1950–51	1.915	0.647	2.240	0.924	5.726
	1955–56	2.535	1.116	6.638	0.839	11.128
	1960–61	4.318	1.183	17.298	4.479	27.278
5 Amreli .	1950–51	N.A.	N.A.	N.A.	N.A.	N.A.
	1955–56	N.A.	N.A.	N.A.	N.A.	N.A.
	1960–61	0.206	N.A.	0.212	0.033	0.451
6 Junagadh .	1950–51	N.A.	N.A.	N.A.	N.A.	N.A.
	1955–56	0.040	N.A.	N.A.	0.004	0.044
	1960–61	4.172	N.A.	24.916	3.153	32.241
7 Kutch .	1950–51	N.A.	N.A.	N.A.	N.A.	N.A.
	1955–56	0.671	0.396	0.821	0.386	2.274
	1960–61	0.757	1.339	4.950	2.663	9.709
8 Banaskantha .	1950–51	..	..	..	..	..
	1955–56	0.434	0.005	0.049	0.071	0.559
	1960–61	0.629	0.273	0.218	0.241	1.361
9 Sabarkantha .	1950–51	N.A.	N.A.	N.A.	N.A.	N.A.
	1955–56	0.079	N.A.	N.A.	0.052	N.A.
	1960–61	0.035	0.382	0.208	0.121	0.746
10 Mehsana .	1950–51	0.634*	0.387	0.316	0.431	1.768
	1955–56	1.166	1.018	0.942	1.129	4.255
	1960–61	1.797	2.034	31.540	4.362	39.733
11 Ahmedabad .	1950–51	0.338	0.326	0.002	0.027	248.961†
	1955–56	15.040	6.836	404.992	122.761	549.629
	1960–61	26.231	17.624	546.695	183.552	774.102
12 Kaira . .	1950–51	1.032	0.414	1.470	0.600	3.516
	1955–56	2.082	0.981	3.898	1.463	8.424
	1960–61	3.493	5.549	53.025	29.723	91.790
13 Panchmahals .	1950–51	0.697*	0.086	1.017	0.124	1.924
	1955–56	0.764*	0.144	1.835	0.210	2.953
	1960–61	1.614*	0.134	2.870	0.335	4.953
14 Baroda . .	1950–51	3.662*	0.144	3.008	0.702	7.516
	1955–56	5.061	0.208	6.107	3.138	14.514
	1960–61	9.445	0.680	59.972	46.194	116.291
15 Broach . .	1950–51	0.141*	0.036	0.338	0.067	0.582
	1955–56	0.540	0.629	0.762	0.466	2.397
	1960–61	1.003	1.050	1.012	1.069	4.134
16 Surat . .	1950–51	1.024	0.905	0.906	0.313	16.058†
	1955–56	6.809	1.396	43.902	40.293	92.400
	1960–61	7.278	4.549	80.341	78.979	171.147

N.A.=Not available

†Includes figures for columns 3 to 6 in case of those private licence holders who have not furnished separate figures for domestic, commercial and industrial consumption and for other purposes.

*Includes figures of commercial use also in case of those private licence holders who have not furnished separate figures for domestic and commercial consumption.

‡Excludes Amreli and Junagadh districts for which data are not available.

NOTE : Information for private licencees included in the table relates only to those licencees for which the data have been furnished by the Electrical Engineer to Government, Public Works Department, Gujarat State.

Source : *District Census Handbooks*, 1961

SECTION 18

TRANSPORT AND COMMUNICATIONS

PROGRESS DURING THE DECADE

246. The development of industries, trade and commerce which go to make up the general economic condition of a region is conditioned by the facilities of means of transport and communications it possesses. The following table records progress of transport in Gujarat State from the data available.

STATEMENT XII.81

Progress of transport in Gujarat State

Transport	Unit	1950-51		1955-56		1960-61		1965-66 (Target)	
		Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9	10
A—Railways									
New lines added .	Miles	N.A.	N.A.	49.16	100	N.A.	N.A.	N.A.	N.A.
B—Roads									
1 New surfaced including National Highway .	,,	4,112	100	4,838	117	7,410	180	8,690	211
2 Unsurfaced . .	,,	4,057	100	6,210	153	7,071	174	8,491	209
3 Improvement of existing roads . . .	,,	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C—Road transport									
Commercial vehicles on roads . . .	Number	8,228	100	9,892	120	16,061	195	20,049	243
D—Port capacity . .	Tons	1,843,110	100	1,967,690	106	2,346,105	127	6,277,185	340

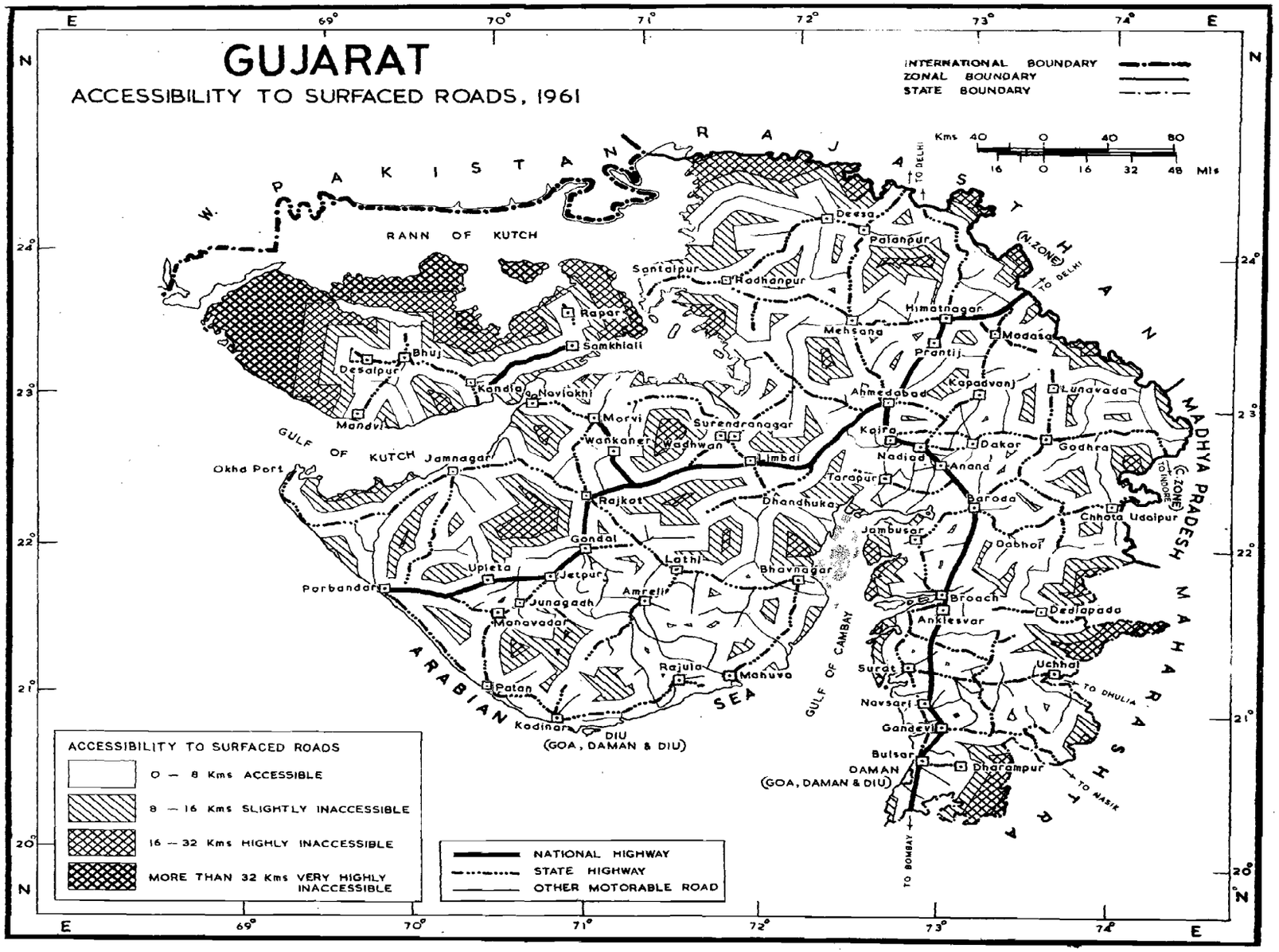
N.A.=Not available

Source:

1. Public Relation Officer, Western Railway
2. Public Works Department, Gujarat State
3. Director of Transport, Gujarat State
4. Director of Ports, Gujarat State

Railways

247. The total railway mileage in the State has practically remained the same except for an addition of 49.16 miles at the close of the quinquennium 1955-56, for doubling the tract between Godhra and Ratlam on the Bombay-Delhi trunk-line as also at Anand and Baroda. The State has 5,336 km. of the total railway line comprising 904 km. of broad-gauge, 3,277 km. of metre-gauge and 1,155 km. of narrow-gauge systems all under the Western Railway. The Saurashtra region has mostly metre-gauge and a little of narrow-gauge lines. The construction of the metre-gauge link between Himatnagar and Udaipur will open the shortest and quickest route from Ahmedabad to Rajasthan and will once again establish the former trade-route between Gujarat and Northern India. During the period under review, the increasing load of goods and passenger traffic became all the more apparent, as people have become more travel-minded and the movement of goods has increased considerably owing to the growing pace of industrialisation. During the past decade, the State had to experience great hardship on account of irregular and inadequate movement of coal due


GUJARAT
ACCESSIBILITY TO SURFACED ROADS, 1961
INTERNATIONAL BOUNDARY
ZONAL BOUNDARY
STATE BOUNDARY
Kms 40 0 40 80
16 0 16 32 48 Mls
PAKISTAN
W. PAKISTAN
RAJASTHAN
RANN OF KUTCH
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
MADHYA PRADESH
MAHARASHTRA
TO DELHI
(N. ZONE)
(C. ZONE)
TO INDORE
TO DHULIA
TO NASIK
TO BOMBAY
DIU
(GOA, DAMAN & DIU)
DAMAN
(GOA, DAMAN & DIU)
Deesa
Palanpur
Santalpur
Radhanpur
Himatnagar
Mehsana
Modasa
Prantij
Rapar
Samkhiali
Bhuj
Desalpur
Kandla
Navlakhi
Ahmedabad
Kapadvanj
Lunavada
Mandvi
Morvi
Surendranagar
Wankaner
Wadhwan
Kaira
Dakor
Godhra
Jamnagar
Limbdi
Nadiad
Anand
Okha Port
Rajkot
Tarapur
Dhandhuka
Baroda
Chhota Udaipur
Jambusar
Gondal
Dabhoi
Upleta
Jetpur
Lathi
Bhavnagar
Porbandar
Amreli
Broach
Dediapada
Junagadh
Ankleswar
Manavadar
Rajula
Mahuva
Surat
Uchhal
Patan
Navsari
Kodinar
Gandevi
Bulsar
Dharampur
ACCESSIBILITY TO SURFACED ROADS
0 — 8 Kms ACCESSIBLE
8 — 16 Kms SLIGHTLY INACCESSIBLE
16 — 32 Kms HIGHLY INACCESSIBLE
MORE THAN 32 Kms VERY HIGHLY INACCESSIBLE
NATIONAL HIGHWAY
STATE HIGHWAY
OTHER MOTORABLE ROAD
69°
70°
71°
72°
73°
74°
E
N
24°
23°
22°
21°
20°

to the shortage of wagons, bottle-neck at Agra and transhipment at Viramgam and Sabarmati. The alternative mode of transport through private and public carriers is being increasingly resorted to, to ensure quick movement of goods in different parts of the State and the country. The existing stagnation in the expansion of rail traffic in the State needs to be removed by opening up certain essential rail links, which is all the more necessary in view of the expanding industrialisation during the current as well as in the forthcoming Five Year Plans. Expansion of railway in the Third Plan involves:

(1) laying out of a new metre-gauge line of about 214 km. between Udaipur and Himatnagar (60.38 km. falling in the State) to be completed by October, 1965, at a cost of Rs. 1,056 lakhs;
(2) building of a 230.84 km. Zund-Kandla broad-gauge line to be completed in the Fourth Plan at an estimated cost of Rs. 1,445 lakhs;
(3) an expenditure of Rs. 23 lakhs on the installation of a new loco-shed at Rajkot completed in 1961-62;
(4) remodelling of Ahmedabad broad-gauge yard at an estimated cost of Rs. 193 lakhs and a metre-gauge yard (cost Rs. 206 lakhs) to be ready in 1965; and
(5) doubling of a 41 km. Kalol-Mehsana track at a cost of Rs. 130 lakhs.

It is very necessary that Ahmedabad is linked with the major port of Kandla *via* Zund. The work has already been taken in hand in the Third Plan and is expected to be completed in the Fourth. Of equal importance is the broad-gauge line between Tarapore and Bhavnagar so very essential to cope with the growing output of cement, soda ash and other industries in Peninsular Gujarat. Other rail links of importance would be between (i) Rajula and Una, (ii) Balasinor and Kapadvanj and (iii) Bhuj and Lakhpat.

Roads

248. Prior to 1947, the major part of the present Gujarat State was under the control of numerous Princely States which were averse to the development of roads as it entailed expense and also came in the way of the earnings of their railways. Even in the rest of Gujarat construction of roads was neglected by the former administration. The territories now forming part of Gujarat had only 4,734 miles of roads in 1948 giving a ratio of 6.5 miles per 100 sq. miles. The target of roads was fixed at 24,315 miles under the Nagpur Plan prepared for the period 1941–61 on the basis of general principles laid down in the conference of Road Chief Engineers of India held at Nagpur in 1943. Progress in the field of road development during the period 1948 to 1961 is given in the following table.

STATEMENT XII.82

Progress of road development, 1948-66

Sl. No.	Category of road	Nagpur Plan target	Mileage as on 31-3-1948	31-3-1951	31-3-1956	31-3-1961	31-3-1966 Anticipated
1	2	3	4	5	6	7	8
Total		**24,315**	**4,734**	**8,170**	**11,098**	**14,055**	**16,056**
1	National Highway	9,759	2,738	371	445	624	654
2	State Highway			936	1,215	2,500	2,950
3	Major District Roads			1,683	1,932	3,780	4,272
4	Other District Roads	14,556	1,996	2,907	4,317	4,353	4,611
5	Village Roads			2,273	3,189	2,798	3,569

Source:
General Administration Department, Gujarat State

249. Against the Nagpur Plan target of 24,315 miles, the achievement in 1961 was 14,055 miles only. While India as a whole had 440,676 miles of roads at the end of Nagpur Plan period against the target of 331,000 miles, an excess of 33 per cent, Gujarat remained deficit by 42 per cent. It has been estimated that the State will be behind the Nagpur Plan target by 34 per cent even at the end of the Third Plan. Comparison of road development in Gujarat with other States of India given below reveals that Gujarat with 21 miles per 100 sq. miles ranked 13th and with 74 miles of roads per lakh of population stood 14th amongst the States of India on 31st March, 1961.

STATEMENT XII.83

Mileage of roads per 100 sq. miles and per lakh of population, States and Union Territories, 31st March, 1961

Sl. No.	State/Union Territory	Mileage of roads per 100 sq. miles (end of Nagpur Plan)			Mileage of roads per lakh of population (end of Nagpur Plan)		
		Surfaced miles	Unsurfaced miles	Total miles	Surfaced miles	Unsurfaced miles	Total miles
1	2	3	4	5	6	7	8
	INDIA	**12**	**24**	**36**	**31**	**63**	**94**
1	West Bengal	25	94	119	24	91	115
2	Kerala	34	48	82	30	42	72
3	Bihar	12	63	75	18	90	108
4	Madras	35	24	59	52	36	88
5	Uttar Pradesh	11	43	54	17	66	83
6	Mysore	22	30	52	71	95	166
7	Punjab	14	26	40	32	61	93
8	Assam	4	35	39	15	138	153
9	Delhi, Himachal Pradesh, Manipur, Tripura	4	33	37	16	134	150
10	Andhra Pradesh	16	16	32	45	48	93
11	Orissa	8	24	32	29	81	110
12	Maharashtra	14	13	27	38	42	80
13	*Gujarat*	*10*	*11*	*21*	*36*	*38*	*74*
14	Rajasthan	6	13	19	41	86	127
15	Madhya Pradesh	9	8	17	46	45	91
16	Jammu and Kashmir	2	6	8	3	15	18

Source:
General Administration Department, Gujarat State

250. The position of roads prior to Independence is thus seen to be far from happy in Gujarat. New surface roads inclusive of National Highways which accounted for 4,112 miles rose to 7,410 miles between 1950 and 1960, the rise in the index of progress being 100 to 180. Corresponding increase was also registered in unsurfaced roads which rose from 4,057 to 7,071 miles during the same period. Road transport measured by the number of commercial vehicles on roads, has shown considerable advance from 8,228 to 16,061, an increase of 95 per cent during the last 10 years. An estimate of the improvement and extension of road traffic can be made also from the total number of motor vehicles in operation in the State, which rose from 26,888 in 1958 to 35,775 in 1960. The number of carriers private and public during this period substantially increased from 7,991 to 10,257 which shows the extent of growth of movement of goods by road. The Third Plan envisages further promotion of road facilities by raising the index for new surfaced and unsurfaced roads to 211 and 209 respectively, and that of commercial vehicles on roads to 243. Even after the implementation of the projected road

programme, there will still be a deficit of 7,000 miles to be made up to fulfil the target prescribed by the Nagpur Plan, apart from the additional mileage required to cope with the growing needs of industry.

Roads in Districts

251. The condition of roads in various districts of the State brings out the considerable regional imbalance in the field of road development in the State. Districts shown in the table given below remained deficit to the extent of about 70 per cent of the Nagpur Plan target.

STATEMENT XII.84

Deficit of road mileage in selected districts

	District	Nagpur Plan target	Road mileage (31-3-1961)	Percentage of deficit
	1	2	3	4
1	Broach	1,218	473	61
2	Panchmahals	1,777	680	62
3	Kaira	2,118	759	64
4	Sabarkantha	1,384	463	67
5	Mehsana	2,082	558	73
6	Banaskantha	1,425	375	74

252. The position so far as village approach roads is concerned is rather disquieting as about 6,259 villages or about one-third of the State total have no approach roads, whereas in respect of villages which have the facility of approach roads, bridges and culverts are required to be constructed in as many as 3,927 villages.

Ports

253. Gujarat has a long coast-line of about 1,000 miles, possessing nearly 50 ports providing facilities for the movement of traffic, coastal as well as foreign. One of the six major ports of India is located at Kandla. The capacity of ports has risen from 1,843,110 to 2,346,105 tons between 1951-61, that is to say by 27 per cent. The future programme aims at expanding the existing capacity considerably to 6,277,185 tons to meet the growing demands for the movement of goods that will be manufactured as a result of various schemes of industrial expansion. It includes schemes for the development of ports by expanding the existing capacity at Surat, Broach, Bhavnagar, Veraval, Porbandar, Okha, Sikka, Bedi, etc., and making Veraval and Porbandar all-weather ports. This may not be enough and additional facilities will have to be provided at other ports as well including increase in the existing capacity of Kandla port, the demand for which is likely to be greater in future with the establishment of Free Trade Zone round about that port.

POST OFFICES

Expansion of Postal Facilities

254. On bifurcation of the composite Bombay circle, a separate postal circle for Gujarat has started functioning from 1st July, 1961 with the headquarters at Ahmedabad. The circle comprises the entire Gujarat State, Dadra and Nagar Haveli, Diu and Daman. The statement given below presents a picture of expanding postal facilities provided in the State, since the formation of Gujarat Post and Telegraph Circle.

STATEMENT XII.85

Number of post offices, 1961-64

Sl. No.	Category of post offices	Number as on 1-7-1961	31-3-1962	31-3-1963	31-3-1964	30-9-1964
1	2	3	4	5	6	7
	Total	**4,075**	**4,546**	**4,927**	**5,202**	**5,249**
1	Head post office	13	13	17	18	18
2	Departmental sub-office	483	520	598	654	678
3	Extra departmental sub-post office	13	10	19	19	21
4	Departmental branch offices	5	5	1	Nil	Nil
5	Extra departmental branch post offices	3,561	3,998	4,292	4,511	4,532

Source:

Post Master General, Gujarat Circle, Ahmedabad

255. Since the opening of a separte postal circle for Gujarat and during a short period of three years, the number of post offices has increased by 28.81 per cent from 4,075 to 5,249. The average area and population served per post office on 1st July, 1961 which were 17.63 sq. miles and 5,063 persons respectively are reduced to 13.66 sq. miles and 3,966 persons on 31st March, 1964. The corresponding all-India figures of 14 sq. miles and 4,867 persons per post office as on 1st January, 1964 are fairly comparable. During the Third Five Year Plan, the conditions for opening post offices in rural areas have been liberalised and provide for opening post offices in villages with a population of 1,000 or more as also in villages which are the headquarters of the National Extension Service or Community Development blocks or of the panchayat. The district-wise figures showing the progress in the number of post offices per 1,000 population and index of progress with 1950-51 as base are given below.

STATEMENT XII.86

Number of post offices per 1,000 of population in the State and districts

(*Base: 1950-51=100*)

State/District	1950-51		1955-56		1960-61		1965-66	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
GUJARAT	**N.A.**	..	**0.15**	**100**	**0.20**	**150**	**0.25**	**204**
1 Jamnagar	N.A.	..	0.12	100	0.19	186	0.22	235
2 Rajkot	N.A.	..	0.16	100	0.19	136	0.24	190
3 Surendranagar	0.16	100	0.15	110	0.18	145	0.28	250
4 Bhavnagar	0.16	100	0.18	129	0.21	161	0.29	252
5 Amreli	0.08	100	0.07	100	0.19	298	0.32	542
6 Junagadh	0.12	100	0.14	130	0.22	225	0.28	314
7 Kutch	0.30	100	0.32	119	0.35	140	0.47	209
8 Banaskantha	0.05	100	0.09	205	0.14	338	0.26	733
9 Sabarkantha	0.11	100	0.13	146	0.20	254	0.25	365
10 Mehsana	0.14	100	0.12	97	0.17	149	0.22	214
11 Ahmedabad	0.10	100	0.10	112	0.14	178	0.13	182
12 Kaira	N.A.	..	0.17	100	0.21	138	0.24	166
13 Panchmahals	0.08	100	0.08	116	0.12	198	0.17	308
14 Baroda 15 Broach	0.18	100	0.19	120	0.28	196	0.28	216
16 Surat	0.23	100	0.21	106	0.25	138	0.31	184
17 Dangs	0.04	100	0.08	250	0.27	950	0.38	1,600

N.A.=Not available

NOTE:

(i) Data regarding post offices in existence in the year 1950-51 in respect of Jamnagar, Rajkot and Kaira districts are not available and hence the year 1955-56 has been taken as a base year for the State and these three districts.

(ii) Data for the Broach and Baroda districts are combined as separate figures are not available.

Source:
Post Master General, Gujarat Circle, Ahmedabad

256. It will be seen from these figures that the number of post offices per 1,000 of population in the State has progressively gone on increasing at every quinquennium beginning from 1950-51, and has increased from 0.15 at the beginning of the Second Plan to 0.20 at the beginning of the Third.

257. The index figures with 1955-56 as base show continuous progress from one quinquennium to another which is reflected to a varying extent in different districts of the State. Backward districts like the Dangs, Banaskantha, Sabarkantha and Amreli which had suffered in the past show striking gain which is phenomenal—a rise of 850 points—in case of the hitherto isolated and inaccessible district of the Dangs.

258. As a result of the liberal policy of providing postal facilities to as large a segment of population as possible, underdeveloped areas which were devoid of such facilities are now provided with postal services in an increasing manner. The policy during the Second Plan was to reduce the number of 'No-dak' villages by attaching such villages to the fixed and unfixed

beats of the delivery staff. Considerable progress has been achieved in this direction as the number of 'No-dak' villages which was 1,613 on 30th June, 1961 has now been provided with dak facilities. Areas which have not been developed on account of difficult terrain, sparse population or widespread illiteracy have been declared 'very backward' for the purpose of extension of postal facilities. 25 post offices are proposed to be opened during the Third Plan in such backward pockets of the State falling within the districts of the Dangs, Surat, Baroda, Broach, the Panchmahals, Banaskantha, Sabarkantha and Kutch.

TELEPHONE COMMUNICATIONS

259. During the Second Five Year Plan, telephone exchanges have been opened even on loss basis at the district headquarters towns and at places with over 30,000 population. At the end of the Second Plan, the total number of such stations was 37, all of which have been now provided with telephone exchanges. With rapid industrialisation and commercial expansion in the Third Plan, it was proposed to provide telephone exchanges at places with a population of 20,000 and over. All such towns numbering 55 have also been provided with telephone exchanges. The policy of opening long distance public call offices at subdivisional towns, taluka/mahal and corresponding stations, and places with population of 20,000 and more initiated during the Second Plan was continued during the Third Plan. The position at the end of the Second Plan is given below.

STATEMENT XII.87
Number of public call offices in towns

	Category of stations	Total in the category	Number without public call offices at the end of the Second Plan
	1	2	3
1	District towns .	17	Nil
2	Subdivisional towns	30	1
3	Taluka headquarters (or Thanas) other than mahals .	45	18
4	Mahals headquarters	44	12
5	Places with population of 20,000 and above . .	55	Nil

Source:
Post Master General, Gujarat Circle, Ahmedabad

260. Other telecommunication facilities to be provided include the introduction of metering telephone systems at Surat, Baroda and Jamnagar and projects for automatisation of the existing manual telephone exchanges at Surat, Nadiad, Bhavnagar, Rajkot, Jamnagar and Gandhidham. Of these centres, the projects for automatisation at Surat, Rajkot and Bhavnagar and those for expansion of auto exchanges at Ahmedabad from 7,400 lines to 11,200 and from 2,000 to 2,600 at Baroda have been sanctioned in the Third Plan.

PROGRESS OF BROADCASTING

261. In the field of broadcasting, the Government of India took over the Baroda Studio in December 1948 and opened a radio station at Ahmedabad in April 1949. At the end of the First Five Year Plan, the capacity of Ahmedabad station was raised from 1 kW to 50 kW. A new building for radio station at Ahmedabad was also constructed in May 1956. The objective of the development programme in the Second Plan was to extend the available services to as wide an area as possible largely through internal short wave transmitters and to strengthen the external broadcast services. In pursuance of this objective a radio station with 1 kW was started at Rajkot in January 1955. In the Third Five Year Plan, it was decided to make the internal coverage more effective by expanding the medium wave broadcast services and by strengthening the arrangements for prerecording of programmes. In the Third Five Year Plan, the capacity of Rajkot Radio Station has been raised from 1 kW to 20 kW in October 1962 and the existing 1 kW transmitting set is set apart for Vividh Bharati. Similar schemes for 1 kW transmitting set at Ahmedabad and Baroda for Vividh Bharati are under consideration. With a view to extend broadcasting facilities to regions hitherto uncovered, preliminary operations for the establishment of a radio station at Bhuj are afoot.

262. Under the scheme of Rural Broadcasting, community radio receiving sets are installed in the villages of the State to enable the rural population to have the benefit of the rural programmes broadcast through All-India Radio. In addition to 3,500 sets installed by the end of the Second Plan period, 2,500 more sets are proposed to be installed during the Third Plan, thus covering one out of every three villages in the State.

SECTION 19

SOCIAL SERVICES

A—Education

INSTITUTIONS

263. The table given below gives the progress in the number of various types of educational institutions in the State at the beginning of the First Plan (1950-51), Second Plan (1955-56), Third Plan (1960-61) and recently projected figures for the year 1965-66.

STATEMENT XII.88

Educational institutions, 1950-51 to 1965-66

(Base: 1950-51=100)

Types of schools	1950-51		1955-56		1960-61		1965-66 (Projected recently)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
Total	**12,550**	**100.00**	**23,370**	**186.22**	**27,677**	**220.53**	**31,670**	**252.35**
Primary	9,579	100.00	15,322	159.95	18,512	193.26	20,000	208.79
Secondary	559	100.00	668	119.50	1,099	196.60	1,500	268.34
Higher	39	100.00	59	151.28	101	258.97	170	435.90
Others	2,373	100.00	7,321	308.51	7,965	335.65	10,000	421.41

Source:
Director of Education, Gujarat State

The above table reveals that as a result of various schemes for the expansion of education, the number of educational institutions under different types—primary, secondary, higher and others—has registered an increase from one Five Year Plan period to another. As against 12,550 educational institutions of all types in the State existing at the beginning of the First Plan, there were 23,370 at the beginning of the Second and 27,677 at the commencement of the Third which are expected to increase to 31,670 at the beginning of the Fourth. The percentage increase registered during the course of the first two Plan periods comes to 120.53.

Primary Education

264. As the primary stage constitutes the basic pillar of the entire educational superstructure, great attention has been given to expand and intensify the primary level of education. In 1953-54 the Government launched an intensive drive to provide schools to as many schoolless villages as possible, especially to open an independent school in villages with a population of 500 and over. Various types of other programmes and measures in the form of group schools and peripatetic-teacher schools were undertaken, as a result of which the number of villages without schools has decreased considerably since 1953-54. The provision of free and compulsory primary education for children upto the age of 14 years as envisaged in the Constitution has also given a further impetus to the expansion of primary education. In the Third Plan a sum of Rs. 6.73 crores has been earmarked for imparting free and compulsory education to children aged 6–11. The percentage of children enrolled to the number of children liable for compulsion during

1960-61 was 59.7. It is estimated that by 1965-66, about 80 per cent of the children in this age-group will be attending school. Primary education has thus made good progress during the first two Plans and the pace is being further accelerated during the Third. The number of institutions has increased from 9,579 at the beginning of the First Plan to 15,322 at the commencement of the Second Plan and to 18,512 at the start of the Third, registering an increase of 93.26 per cent during the decade. At the end of the current Plan, the increase anticipated in the number of schools is 1,488 which will raise the index from 193 at the beginning of the Third Plan to 209 at the beginning of the Fourth.

Secondary Education

265. Secondary education, a vital and important link between primary and higher education, has also advanced considerably during the course of the first two Plans. Secondary type of eductional institutions which numbered 559 at the beginning of 1950-51, rose to 668 in 1955-56 and shot upto 1,099 in 1960-61, showing a percentage increase of 96.60 during the decade. The projection for 1965-66 anticipates an increase of 401 schools over this number existing in 1960-61. The index of progress at the end of the Third Plan with 1950-51 as base is expected to go upto 268, as against 209 for primary schools. During one single year 1960-61, the number of secondary schools increased from 986 to 1,099, adding 113 of which 93 were opened by private agencies.

Higher Education

266. With the expanding base at the primary and secondary level, the demand for higher education has naturally increased. It was only in the year 1949 that Maharaja Sayajirao University was established at Baroda and the teching-*cum*-affiliating University of Gujarat in 1950 at Ahmedabad where the Gujarat Vidyapith established by Mahatma Gandhi was making notable progress. As per recommendations of the Indian University Commission of 1948, steps were taken to set up a rural university and the Vallabh Vidyanagar University the first of its kind was incorporated at Anand in 1955. Two additional universities, one in South Gujarat and another in Saurashtra are also proposed to be set up to meet the growing needs of higher education and research in the State.

267. During the first two Plans, the number of institutions for higher learning has increased considerably from 39 in 1950-51 to 101 at the beginning of the Third Plan and is expected to rise to 170 at the beginning of the Fourth. The rise during the first two Plan periods is to the extent of 158.97 per cent. The anticipated target for the year 1965-66 will raise the index of progress to 436 with 1950-51 as base. 101 institutions in 1960-61 include 4 universities, 7 research institutions, 47 colleges for general education, 38 colleges for professional education and 6 for special education.

Other Institutions

268. During the first two Plan periods, the progress under other types of educational institutions is also heartening as the number of institutions increased from 2,373 in 1950-51 to 7,965 in 1960-61, registering an increase of 235.65 per cent in a decade. The projected figure for the year 1965-66 is likely to augment this number to 10,000, when the index of progress will stand at 421 points.

269. These figures reveal that the progress in the field of education has been rapid and diversified to meet the growing educational needs of the people, as a result of the progressive educational policy of the State, liberal donations by philanthropists and active participation by public workers organising Kelavani Mandals or education societies to take over the existing institutions or start new ones.

Enrolment

270. Enrolment of pupils under all types of educational institutions has advanced from 1,471,714 in 1950-51 to 2,870,349 in 1960-61 and registered an increase of 95.03 per cent which is expected to increase by 190.14 per cent at the end of the Third Plan. The index of progress in enrolment by type of educational level for the year 1950-51, 1955-56 and 1960-61 and projected figures for 1965-66 with 1950-51 as base are given in the table on the next page.

STATEMENT XII.89

Enrolment by level of education, 1950-51, 1955-56 and 1960–61

(*Base: 1950-51=100*)

Educational level	1950–51		1955–56		1960–61		1965–66 (Projected recently)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
Total . .	**1,471,714**	**100.00**	**2,083,751**	**141.59**	**2,870,349**	**195.03**	**4,270,000**	**290.14**
Primary . .	1,214,451	100.00	1,638,895	134.95	2,247,113	185.03	3,000,000	247.03
Secondary . .	185,051	100.00	240,631	130.03	364,853	197.16	600,000	324.23
Higher . .	13,687	100.00	27,327	199.66	49,831	364.08	70,000	511.43
Others . .	58,525	100.00	176,898	302.26	208,552	356.35	600,000	1,025.20

Source :

Director of Education, Gujarat State

271. These figures bring out an alround increase in enrolment under all types of educational institutes which is an index of the growing consciousness of people and increasing importance attached to different branches of education. The enrolment under primary education during the decade has registered an increase of 85.03 per cent which is less than that under other categories of institutions.

272. The enrolment under the secondary type has nearly doubled during the last decade, whereas in case of higher education it will at the beginning of the Third Plan go up by 264.08 per cent and by 411.43 per cent at the beginning of the Fourth. The enrolment under other types of institutions during this period has also registered an increase of 256.35 per cent.

Rural-Urban Distribution

273. Rural-urban distribution of pupils by types of educational institutions brings out the facilities available in villages and towns of the State and also helps in formulating programmes of educational expansion in these areas. The total number of students enrolled from rural areas in all types of educational institutions in 1960-61 was 1,813,329 or 62.7 per cent of the total enrolment in the State. This high percentage is due first to a comparatively larger number of primary schools in rural areas and secondly due to social education and adult education classes opened in villages to implement the Block Programme. Out of a total enrolment of 364,853 pupils at the secondary stage 121,869 or 33.3 per cent are from rural areas and the rest (66.7 per cent) from urban areas. The enrolment of scholars from rural areas at collegiate level is also equally small and constitutes 31.9 per cent of total enrolment under higher type of institutions. The lesser enrolment at secondary and higher levels from rural areas results from the comparatively smaller number of such educational institutions in rural areas and the difference in the economic condition and outlook of the people living in villages and towns. The rural-urban distribution of scholars by levels of education thus reveals that in post-primary field, education in rural areas has yet a considerable leeway to make.

274. Enrolment figures by themselves alone do not indicate utilisation of facilities available at different educational levels. For a more realistic and correct assessment of the number of scholars in schools, the enrolment figures if related to the total number of persons in different age-groups in the general population can give a better idea about the relative coverage of population in school and college-going ages. The table on the next page presents the relevant statistics for different levels of education by selected age-groups corresponding to the primary, secondary and higher standards.

STATEMENT XII.90

Enrolment of students

Students	Age-group 6—11 Population in age-group 6–11	Enrolment	Percentage to total	Age-group 11—14 Population in age-group 11–14	Enrolment	Percentage to total
1	2	3	4	5	6	7
Total . .	**3,133,235**	**1,472,832**	**47.01**	**1,325,986**	**632,506**	**47.70**
Boys . .	1,627,205	927,299	56.99	718,296	433,312	60.32
Girls . .	1,506,030	545,533	36.22	607,690	199,194	32.78

Students	Age-group 14—17 Population in age-group 14–17	Enrolment	Percentage to total	Age-group 17—23 Population in age-group 17–23	Enrolment	Percentage to total
1	8	9	10	11	12	13
Total . .	**1,176,561**	**300,221**	**25.52**	**2,353,651**	**49,831**	**2.12**
Boys . .	638,977	228,090	35.70	1,188,207	41,125	3.46
Girls . .	537,584	72,131	13.42	1,165,444	8,706	0.75

Source:

Annual Administration Report, 1960-61, Education Department, Gujarat State, pp. 8, 9 and 67

275. The percentage of enrolment to general population is much higher in the first two age brackets (6–11 and 11–14) than in the subsequent age-groups (14–17 and 17–23). The higher percentage in the primary age-groups can be attributed to the partial introduction of compulsory primary education and the growing realisation that working knowledge of reading, writing and arithmetic is so very essential these days even for the village people. The fact, however, that enrolment in the age-group 6–11 is 47.01 per cent stresses the need for intensifying the drive for compulsory education, as more than half the population under this age-group is still to be enrolled. Another significant feature is the great disparity in the coverage in respect of boys and girls, as it is generally believed that a boy is more likely to profit by education than a girl who has a different sphere to work in. The declining percentage of enrolment under the age-groups (14–17 and 17–23) shows that many parents who are not in a position to continue the education of their children desire to get them employed or have their assistance in the household occupation. The percentage of enrolment to total population in the age-group 17–23 is as low as 0.75 in case of girls, as these are ages when marriage acts as a deterrent to higher education. These figures indicate the comparative backwardness of girls in the field of secondary and higher education which should receive greater attention in the future.

Technical Institutions

276. Rapidly advancing pace of industrialisation calls for larger personnel with technological and scientific skills and consequent changes in patterns of training and expansion of technical education. In 1950-51 there were four engineering colleges having an admission capacity of 415 students, besides five polytechnics with an intake capacity of 225 students. The growth of technical education after 1950-51 is given on the next page with 1950-51 as base.

STATEMENT XII.91

Technical institutions and admission capacity

(Base : 1950-51=100)

Technical institutions	1950–51		1955–56		1960–61		1965–66 (Target)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
1 Engineering colleges								
(i) Number of engineering colleges	4	100.00	5	125.00	5	125.00	6	150.00
(ii) Admission capacity . .	415	100.00	615	148.19	1,020	245.78	2,000	481.93
2 Polytechnics								
(i) No. of polytechnics (including engineering colleges running diploma courses) . .	5	100.00	7	140.00	13	260.00	15	300.00
(ii) Admission capacity . .	225	100.00	460	204.44	1,585	704.44	1,795	797.78
3 Industrial training institutions								
(i) Number of industrial training institutes . . .	..	..	..	..	10	..	10	..
(ii) Admission capacity . .	..	..	..	..	1,520	..	2,200	..
Total								
(i) Number of institutions .	**9**	**100.00**	**12**	**133.33**	**28**	**311.11**	**31**	**344.44**
(ii) Admission capacity . .	**640**	**100.00**	**1,075**	**167.97**	**4.125**	**644.53**	**5,995**	**936.72**

Source :

Director of Technical Education, Gujarat State

277. The number of technical institutions has increased from 9 in 1950-51 to 28 in 1960-61, an increase of 211.11 per cent during the decade. This number is anticipated to go upto 31 in 1965-66. Analysis by types of institutions reveals that the rate of expansion between 1950-51—1960-61 in case of polytechnics and industrial training institutes is greater as compared to that in engineering colleges, which ought to have shown a considerable expansion to make up a part, if not the whole, of the anticipated shortage and meet the increasing demand for technically and scientifically qualified personnel in public and private undertakings in the State. Despite substantial increase in the facilities for technical education as revealed by the rise in index number from one quinquennium to another, the progress is not adequate to meet the requirements of acute shortage of technically qualified personnel at all levels. In order to remove the shortage to the extent possible, the intake capacity of engineering colleges at Ahmedabad and Morvi and of various polytechnics has been augmented during the decade. The admission capacity of engineering colleges has increased by 145.78 per cent as against 25 per cent in their number. The number of polytechnics in the State has risen from 5 in 1950-51 to 13 at the end of the Second Plan and is likely to be 15 at the end of the Third. As compared to the position existing at the beginning of the First Plan, the number of polytechnics will thus be trebled at the beginning of the Fourth Plan and their intake capacity raised by 697.78 per cent.

B—Health and Related Services

PROGRESS DURING THE DECADE

278. The rate at which public health and medical facilities has grown in the State can be gauged from the table on the next page.

STATEMENT XII.92

Number of hospitals, dispensaries, primary health units and primary health centres in the State and districts

State/District	1950–51		1955–56		1960–61		1965–66 (Target)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
GUJARAT								
(i) Hospitals	**60**	**100.00**	**89**	**148.33**	**98**	**163.33**	..	..
(ii) Dispensaries	**283**	**100.00**	**468**	**165.37**	**525**	**185.51**	..	..
(iii) Beds	**4,648**	**100.00**	**6,444**	**138.64**	**7,225**	**155.44**	..	..
(iv) Primary health units	..	..	**56**	**100.00**	**56**	**100.00**	**56**	**100.00**
(v) Primary health centres	..	..	**6**	**100.00**	**86**	**1,433.33**	**218**	**3,633.33**
JAMNAGAR								
(i) Hospitals	3	100.00	5	166.67	5	166.67	..	..
(ii) Dispensaries	6	100.00	15	250.00	15	250.00	..	..
(iii) Beds	549	100.00	621	113.11	625	113.84	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	5	100.00	9	180.00
RAJKOT								
(i) Hospitals	7	100.00	10	142.86	12	171.43	..	..
(ii) Dispensaries	11	100.00	20	181.82	20	181.82	..	..
(iii) Beds	421	100.00	702	166.75	738	175.30	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	5	100.00	14	280.00
SURENDRANAGAR								
(i) Hospitals	3	100.00	3	100.00	3	100.00	..	..
(ii) Dispensaries	6	100.00	11	183.33	12	200.00	..	..
(iii) Beds	156	100.00	252	161.54	314	201.28	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	6	100.00	10	166.67
BHAVNAGAR								
(i) Hospitals	5	100.00	5	100.00	6	120.00	..	..
(ii) Dispensaries	12	100.00	13	108.33	13	108.33	..	..
(iii) Beds	471	100.00	653	138.64	675	143.31	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	1	100.00	5	500.00	11	1,100.00
AMRELI								
(i) Hospitals	2	100.00	2	100.00	2	100.00	..	..
(ii) Dispensaries	..	..	36	100.00	37	102.78	..	..
(iii) Beds	49	100.00	86	175.51	86	175.51	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	1	100.00	6	600.00	9	900.00

Source :

Director of Health and Medical Services, Gujarat State

STATEMENT XII.92-*contd.*

Number of hospitals, dispensaries, primary health units and primary health centres in the State and districts

State/District	1950-51		1955-56		1960-61		1965-66 (Target)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
JUNAGADH								
(i) Hospitals	5	100.00	6	120.00	8	160.00	..	..
(ii) Dispensaries	42	100.00	43	102.38	43	102.38	..	..
(iii) Beds	441	100.00	511	115.87	629	142.63	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	7	100.00	15	214.29
KUTCH								
(i) Hospitals	6	100.00	20	333.33	17	283.33	..	..
(ii) Dispensaries	15	100.00	42	280.00	58	386.67	..	..
(iii) Beds	124	100.00	431	347.58	443	357.26	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	7	100.00	9	128.57
BANASKANTHA								
(i) Hospitals	4	100.00	4	100.00	4	100.00	..	..
(ii) Dispensaries	15	100.00	17	113.33	25	166.67	..	..
(iii) Beds	100	100.00	143	143.00	195	195.00	..	..
(iv) Primary health units	..	..	1	100.00	1	100.00	1	100.00
(v) Primary health centres	..	..	..	..	5	100.00	12	240.00
SABARKANTHA								
(i) Hospitals	2	100.00	2	100.00	2	100.00	..	..
(ii) Dispensaries	2	100.00	26	1,300.00	25	1,250.00	..	..
(iii) Beds	72	100.00	108	150.00	119	165.28	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	1	100.00	5	500.00	12	1,200.00
MEHSANA								
(i) Hospitals	5	100.00	5	100.00	5	100.00	..	..
(ii) Dispensaries	38	100.00	40	105.26	47	123.68	..	..
(iii) Beds	221	100.00	257	116.29	277	125.34	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	3	100.00	4	133.33	17	566.67
AHMEDABAD								
(i) Hospitals	3	100.00	5	166.67	5	166.67	..	..
(ii) Dispensaries	10	100.00	17	170.00	17	170.00	..	..
(iii) Beds	906	100.00	1,095	120.86	1,095	120.86	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	7	100.00	12	171.43

STATEMENT XII.92-*concld.*

Number of hospitals, dispensaries, primary health units and primary health centres in the State and districts

State/District	1950–51		1955–56		1960–61		1965–66 (Target)	
	Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9
KAIRA								
(i) Hospitals	4	100.00	4	100.00	7	175.00	..	..
(ii) Dispensaries	32	100.00	40	125.00	48	150.00	..	..
(iii) Beds	221	100.00	277	129.86	356	161.09	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	11	100.00	19	172.73
PANCHMAHALS								
(i) Hospitals	2	100.00	4	200.00	4	200.00	..	..
(ii) Dispensaries	14	100.00	18	128.57	17	121.43	..	..
(iii) Beds	121	100.00	201	166.12	201	166.12	..	..
(iv) Primary health units	..	..	1	100.00	1	100.00	1	100.00
(v) Primary health centres	..	..	..	..	7	100.00	16	228.57
BARODA								
(i) Hospitals	5	100.00	5	100.00	6	120.00	..	..
(ii) Dispensaries	54	100.00	61	112.96	73	135.19	..	..
(iii) Beds	578	100.00	670	115.92	867	150.00	..	..
(iv) Primary health units	..	..	48	100.00	48	100.00	48	100.00
(v) Primary health centres	..	..	..	..	2	100.00	12	600.00
BROACH								
(i) Hospitals	2	100.00	2	100.00	2	100.00	..	..
(ii) Dispensaries	..	..	25	100.00	24	96.00	..	..
(iii) Beds	96	100.00	96	100.00	174	181.25	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	4	100.00	10	250.00
SURAT								
(i) Hospitals	1	100.00	6	600.00	9	900.00	..	..
(ii) Dispensaries	22	100.00	40	181.82	47	213.64	..	..
(iii) Beds	49	100.00	258	526.53	358	730.61	..	..
(iv) Primary health units	..	..	6	100.00	6	100.00	6	100.00
(v) Primary health centres	..	..	..	..	9	100.00	29	322.22
DANGS								
(i) Hospitals	1	100.00	1	100.00	1	100.00	..	..
(ii) Dispensaries	4	100.00	4	100.00	4	100.00	..	..
(iii) Beds	73	100.00	73	100.00	73	100.00	..	..
(iv) Primary health units	..	..	..	..	..	..	..	..
(v) Primary health centres	..	..	..	..	1	100.00	2	200.00

The vast difference in the medical and public health facilities as seen from the number of hospitals, dispensaries, beds, primary health units, etc., in existence in 1950-51 and 1960-61 testifies to the progress made in making available these essential services to the people of the State during the past decennium. While the number of hospitals has increased by 63 per cent, that of dispensaries has gone up by 85.51 per cent. In addition to curative measures, preventive aspect has also been attended to by the opening up of the primary health centres in the different districts of the State. There is not a single district which is devoid of the benefits of hospitalisation and districts are not few where the number of hospitals and provision of beds are substantial. The district of Kutch had the largest number of hospitals in the year 1960-61. The provision of beds is the highest in Ahmedabad district (1,095) and noteworthy in Baroda (867), Rajkot (738), Bhavnagar (675), Junagadh (629), Jamnagar (625) and Kutch (443).

279. It can be seen that in order to cope with the increasing need of hospitalisation, the progress during the last ten years has varied from district to district. Whereas in districts like Kutch, Surat, Rajkot, Kaira, Junagadh, the Panchmahals, Ahmedabad and Jamnagar, it is the number of hospitals which has increased during the past ten years, in districts like Surendranagar, Amreli, Banaskantha, Sabarkantha, Mehsana, Broach and the Dangs, though the number of hospitals has remained the same, it is the number of beds which has appreciably increased. The last decade has also seen considerable expansion in the number of dispensaries in all the districts of Gujarat. Donations by philanthropists combined with Government's progressive policy regarding provision and expansion of medical and public health facilities have proved immensely useful in furthering this programme. The Third Five Year Plan aims at increasing the existing facilities still further by establishing 12 more hospitals and an equal number of primary health units.

Medical Education and Training

280. The paucity, however, of trained personnel is one of the greatest handicaps from which this State suffers in common with the rest of the country. The existing facilities which fall short of the standards prescribed by the Bhore Committee require to be considerably expanded not only to meet the acute shortage of trained personnel but also to implement the various public health measures envisaged in the Five Year Plans. Gujarat has at present 3 medical colleges with an annual admission capacity of 220, which is proposed to be raised to 595 during the Third Plan period.

281. Even this addition may not be adequate to cope with the existing shortage which will increase still further with the growing increase in facilities for medical treatment. It must be noted that this shortage is to no less extent induced by the attraction private field holds out for better financial prospects. Government service is, therefore, entered to get some experience and left as soon as such prospects are in sight.

282. Under the scheme for post-graduate medical education, about 60 candidates are expected to be trained during the Third Plan in various branches of medicine. With a view to promote post-graduate studies and research, the medical colleges at Ahmedabad and Baroda will adhere to the development programme and standards laid down by the All-India Institute of Medical Sciences and certain departments of these colleges will be provided with facilities of additional staff, equipment, library and animals for experiment and research. Besides specialised training of 52 doctors a large number of nurses and ancillary personnel will also be required to cope with the increasing demand of development under the medical and public health sector. The Third Plan proposes to undertake a training programme of 150 additional nurses, to upgrade the teaching units at nursing schools, start six centres for training auxiliary nurses, midwives, and provide refresher courses and intensive education for trained nursing personnel.

Control of Communicable Diseases

283. The table on the next page gives details of measures taken to control communicable diseases and promote growth of maternity and child welfare centres and family planning clinics.

STATEMENT XII.93

Control of communicable diseases and growth of maternity and child health centres and family planning clinics

(Base 1950-51=100)

Item	Unit	1950–51.		1955–56		1960–61		1965–66 (Target)	
		Actual	Index	Actual	Index	Actual	Index	Actual	Index
1	2	3	4	5	6	7	8	9	10
(a) Malaria									
(i) Units	19.5	4	100	12.5	312.50	19.5	487.50	..	It is expected that the National Malaria Eradication Programme will enter into maintenance phase in the Fourth Five Year Plan.
(ii) Population covered	Whole State	4 Million	100	12.5 Million	312.50	Whole State	..	..	
(b) Filaria									
(i) Units	..	..	..	3½	100	3½	100	..	It is intended to undertake filaria control measures in all the urban areas in the State.
(ii) Population covered	..	..	..	10½ Million	100	10½ Million	100	..	
(c) Tuberculosis									
(i) B.C.G. teams	9	..	Not known	9	100	9	100	..	..
(ii) T.B. Clinics	14	..	..	14	100	14	100	..	..
(iii) Beds	1,349	..	..	1,349	100	1,349	100	..	..
(d) Leprosy Subsidiary centres	3	1	100	1	100	1	100	..	No new centre/unit to be opened
(e) Venereal diseases V.D. Clinics	1	..	..	..	..	1	100	..	..
(f) Maternity and child health centres	..	84	100	..	..	291	346.43	..	..
(g) Family planning clinic centres	..	..	..	..	..	31	100	16	51.61

Source :

Director of Health and Medical Services, Gujarat State

284. Very good work has been put in in the field of controlling communicable diseases like malaria, filaria, T.B., leprosy and venereal diseases by participating in the National Malaria Eradication Programme as well as in schemes to control filaria. The State had 19.5 malaria and 3½ filaria control units in 1960-61. So far as malaria control is concerned, the entire State will be covered towards the end of the Third Plan and will enter into the maintenance phase in the Fourth. All the urban areas are also intended to be covered by filaria control measures during the Third Plan period, by adding 3½ new control units. Measures to control leprosy as well as venereal diseases are also in progress. B.C.G. vaccination programme is making satisfactory progress with 9 B.C.G. teams and 14 T.B. clinics having 1,349 beds. Significant progress has been achieved in the control of T.B. particularly at Amargadh, where a hospital with 292 beds gives specialised treatment to T.B. patients.

Primary Health Centres and Maternity and Child Health Centres

285. For providing basic health facilities within easy reach of population living in small towns and villages, preventive and curative

measures including maternity and child health services have been undertaken in an integrated manner. Seventy-seven primary health centres after the Government of India pattern and 48 after the State pattern were established by the end of 1959-60. With 35 more such units established during 1960-61 and 20 in 1961-62, 66 per cent of the total rural population is covered by these centres at the end of the first year of the Third Plan (1961-62) and the rest of the rural population is proposed to be covered by its end. As the facilities available at the end of the Second Plan in the existing primary health centres in respect of complicated maternity and surgical cases were not adequate, 12 referral hospitals are proposed to be established preferably by upgrading cottage hospitals or primary health centres during the current Plan period. Great emphasis has been laid on maternity and child health programme which has for its objective popularising of public health measures providing ante-natal, intra-natal and post-natal institutional and domiciliary treatment.

Family Planning Programme

286. The objective of stabilising the growth of population expanding at explosive rate must be the main fulcrum of planned development. If the population is not stabilised at a level consistent with the development of national resources, *per capita* income of the family cannot be raised to an extent which will enable the people to procure the bare necessities of life such as food, clothing and shelter. Family limitation through various measures of planned parenthood under the family planning programme has, therefore, been accepted as one of the potent means to meet the menace of population growth. With a view to impart intensive education, provide facilities and advice on the largest scale possible and stimulate widespread popular effort in rural and urban community, 86 family planning centres in rural areas and 36 in urban areas have been established by the end of the Second Plan. During the Third Plan it is proposed to establish 80 additional centres in the rural and 50 in the urban areas of the State. In order to train various categories of personnel in the family planning programme, 2 Regional Family Planning Training Centres have been established, one each at Ahmedabad and Rajkot. The setting up of sterilisation units at taluka level and increase in the number of vasectomy units, family planning clinics and other measures during the Third Plan period will, it is hoped, bring about a substantial control of births and help maintain the growth of population at a level consistent with the requirements of the State economy.

287. Mention must be made of a comprehensive programme of family planning which the State Government proposes to implement to accelerate the pace of birth control by the adoption of 'coil' system. As the initial experiment made in this behalf has proved successful and simple in adoption, it has now been decided to introduce this scheme in the first instance in about 8 primary health centres in Kaira district. The present requirement of 'coil' has been estimated at 50,000 per annum, which will be about 950,000 during the Fourth Plan period, at the end of which about 950,000 women would have been brought under the purview of this scheme at an estimated expenditure of Rs. 7,300,000. It is claimed that the implementation of this programme will reduce the present birth-rate by about 25 per cent and by about 50 per cent, if it is so intensified as to cover the entire State within the next 5 to 7 years.

Water-supply and Drainage

288. Problems of water-supply are varied in their extent and nature. Several water-supply and drainage schemes were taken up during the First and the Second Plans and are at various stages of implementation. The schemes relating to water-supply have been broadly categorised into rural and urban water-supply and are executed by the village panchayats and municipalities with the financial assistance from the Government in the form of loans and subsidies. There are certain infectious diseases, the incidence of which can be controlled by improving the sanitary and hygienic conditions of the people, which are primarily dependent upon the safe and protected water-supply and adequate facilities of drainage. The State Government has shown particular anxiety for the improvement of rural and urban water-supply as also for the provision of drainage facilities in which Gujarat has been deficient in the past.

289. Ninety-one water-supply schemes framed by various local bodies were in progress during the Second Plan, besides the 72 spill-over schemes and 40 adjusted schemes to be completed in the Third. Of these, 64 are for rural areas and 48 for urban areas. Other schemes include 15 piped water-supply spill-over schemes and 12 more adjusted schemes under the Regional and Rural Water Supply. A scheme for the construction of a dam on the Sabarmati at Dharoi, and another for the supply of water to the Kandla Port Free Trade Zone and township of Gandhidham also form part of the Third Plan.

290. The census carried out by the State Bureau of Economics and Statistics for drinking water-supply facilities in villages has shown that out of 18,228 reporting villages, 17,418 have at least one source of water-supply within the village. Of the latter, 3,445 villages have facilities which are inadequate and cover a population of 25.47 lakhs or 17.4 per cent of the total population enumerated in reporting villages. There are 290 villages where the inadequacy is felt all the year round, as against 492 where it is felt for 7 to 11 months in a year. Villages which do not have any source of water-supply within the village itself number 810 inhabited by a population of 3 lakhs. Of these, those that have some source within 4 furlongs of the village number 594, as against 59, which have to fetch water from a distance of 8 furlongs and more. There is a number of villages in some of the isolated areas like the Bhal where the problem of water-supply has been acute, as places are not few where water has to be supplied to the villagers by motor tankers. The State has, therefore, framed 25 water-supply schemes in the Bhal and other areas, which were at various stages of implementation. In view of the increasing rate of population growth and rapid pace of industrialisation, the problem of adequate water-supply in rural and urban areas has been accorded high priority in successive Five Year Plans. Intensive efforts, effective coordination between various agencies, mobilisation of local initiative and people's contribution will be necessary to achieve the objective of making adequate and assured supplies of drinking water available to villages and towns of the State. In towns the problem of water-supply is no less serious, as places having protected water-supply are not many and towns with drainage facilities quite a few. The problem of urban water-supply is accentuated further by the growth of numbers in cities and towns where existing sources of supply are proving utterly inadequate to cope with the increasing pace of urbanisation and industrialisation. The time may not be distant when scarcity and famine of water may have to be faced like the scarcity and famine of food, if action to avoid such a situation is not taken betimes.

CONCLUDING REMARKS

291. During the past ten years, notable advance has been made under various health programmes implemented during each successive Plan peroid to bring about progressive improvement in the health of the people. The cumulative effects of the various measures described above are clearly visible in declining mortality and increase in the average expectancy of life in the State.

C—Housing and Rural and Urban Planning

HOUSING

292. Housing is one of the three primary needs of human existence. Since housing exerts a wholesome influence on the people by ensuring essential comfort and social stability, housing programme has acquired an important place in national planning. In view, however, of the paucity and unsatisfactory position of housing statistics, the first housing census of the country was undertaken in conjunction with the population Census of 1961 to collect certain basic information on the housing condition of the people of this land. The results of the Housing Census are reviewed at length in a separate Report on Housing and Establishments for Gujarat published as Census of India 1961, Vol. V, Part-IV-A. The relevant portions given at pages 328-331 of the said report show the index and extent of overcrowding in the State, and reveal that the condition of the people living in rural as well as urban areas as regards this essential prerequisite of human existence is deplorable, not only from the point of view of accommodation, space and congestion but also from the nature of dwellings in which the

people have to live. The condition of housing in slum areas has also been examined to obtain an idea of the condition in which the industrial workers live. The condition of village slums on the periphery of the village, where the disadvantageous backward classes like Harijans, Vaghris, etc., live, is found to be far worse. These statistics also give a clear answer to the wrong notion that was so far prevalent that urban areas are more overcrowded and congested than the rural. In fact, the data examined point to a contrary conclusion, disclosing the startling fact that villagers are harder hit than *town-dwellers in the matter of housing* accommodation, living space and type of dwellings available.

293. Some of the important statistics furnished by the Housing Census will be referred to here in brief in order to give a clear background of the housing conditions of the people of Gujarat, as such an analysis will be useful in assessing the magnitude of this problem, efforts needed to meet its gravity and the effects of various measures undertaken in the successive Five Year Plans of the State.

294. According to the Housing Census taken during the period from August to October 1960, there were 5,433,394 census houses in the State, of which 3,963,807 or 73 per cent were in rural areas and 1,469,587 or 27 per cent in urban areas corresponding to the distribution of population between rural and urban areas which is 74.2 per cent and 25.8 per cent respectively. There were 599,904 or 11.04 per cent vacant houses, 3,870,655 or 80.08 per cent dwellings and 962,835 or 19.92 per cent non-dwellings. As it will be interesting to know how many dwellings are owned or rented, how many rooms they contain, how many persons live in them as also the composition of their walls and roofs, the following aspects of housing which have been discussed at length in the Report on Housing and Establishments will be summarised here in brief.

(i) Tenure status
(ii) Distribution of number of persons per room and household of each category
(iii) Material of wall and roof.

TENURE STATUS

295. The table opposite gives distribution of 1,000 census households by type of census houses and tenure status for rural and urban areas.

STATEMENT XII.94

Distribution of 1,000 census households by type of census houses and tenure status in rural and urban areas, 1961

(Based on 20% Sample)

State/District	Rural Urban	Dwellings		Non-dwellings	
		Owned	Rented	Owned	Rented
1	2	3	4	5	6
GUJARAT	**R**	**897**	**90**	**8**	**5**
	U	**384**	**594**	**9**	**13**
1 Jamnagar .	R	870	126	3	1
	U	425	572	1	2
2 Rajkot .	R	869	126	4	1
	U	388	610	1	1
3 Surendranagar	R	913	79	6	2
	U	517	478	3	2
4 Bhavnagar	R	871	113	12	4
	U	405	579	7	9
5 Amreli .	R	883	103	12	2
	U	569	424	10	6
6 Junagadh .	R	849	138	9	4
	U	393	603	2	2
7 Kutch .	R	818	178	2	2
	U	327	672	1	N
8 Banaskantha	R	939	48	10	3
	U	605	370	13	12
9 Sabarkantha	R	922	64	8	6
	U	556	398	16	30
10 Mehsana .	R	922	68	7	3
	U	586	390	9	15
11 Ahmedabad	R	867	118	10	5
	U	218	766	4	12
12 Kaira .	R	901	86	9	4
	U	513	457	16	14
13 Panchmahals	R	953	34	9	4
	U	449	514	16	21
14 Baroda .	R	868	114	11	7
	U	337	627	9	27
15 Broach .	R	903	80	10	7
	U	488	482	17	13
16 Surat .	R	912	71	10	7
	U	400	539	33	28
17 Dangs* .	R	866	121	3	10

N=Negligible

*Entirely rural

Source :
Census of India 1961, Vol. V, Gujarat, Part IV-A, *Report on Housing and Establishments*

Rural Areas

296. In every 1,000 rural households, 987 are dwellings of which 897 are owned and 90 are rented as against 384 owned and 594 rented in towns. The proportion of rented houses is the lowest in the rural areas of the Panchmahals (34) and the highest in Kutch (178) and is much above the State average in Junagadh (138), Bhavnagar (113), Jamnagar

(126), Rajkot (126), the Dangs (121), Ahmedabad (118) and Baroda (114) districts. These statistics throw light on the changing conditions in the countryside where also the demand for rented accommodation is keenly felt. But the fact that the tenure status has greater significance in the urban areas than in the rural will be apparent from the fact that out of 1,000 houses that are rented in the State, 301 are in villages and 699 in towns.

Urban Areas

297. The proportion of owned dwellings per 1,000 census households is the highest (605) in the urban areas of Banaskantha district and the lowest (218) in Ahmedabad district. The corresponding proportion of rented houses ranges between 370 for Banaskantha and 766 for Ahmedabad. It is significant to note that more than 50 per cent of the households in the towns of Ahmedabad, the Panchmahals, Baroda, Surat, Bhavnagar, Rajkot, Jamnagar, Junagadh and Kutch districts live in rented accommodation. These variations result from a variety of factors such as urbanisation, growth of industries and commerce and opening of new offices and educational institutions which create their own demand for houses to be taken on hire. But in Kutch, the new township of Gandhidham and the emergence of the major port of Kandla are the additional factors which have been responsible for raising the proportion of rented dwellings in that district to 672.

298. The percentage of owned houses is obviously greater in rural (89.7) than in urban areas (38.4) of the State. In villages nearly nine out of every ten households possess a house of their own as against four in towns. Those that do not possess it are an exception in villages where the desire to have one's own house can be satisfied at little cost with local material and labour provided by the members of one's family and neighbours. The idea of renting houses so far as rural areas are concerned was hitherto unknown. In days bygone villages had few outsiders. Even the revenue accountant, i.e., the Talati, usually lived at the taluka headquarters and periodically visited the villages of his group. But nowadays with the introduction of Community Development Programme and implementation of various planned activities aiming at the improvement of the condition of the countryside, a novel element has been introduced in the erstwhile isolated and self-satisfied existence of villages. The numerous village level functionaries, *gram sevaks* and *sevikas*, primary school teachers and panchayat secretaries all of whom are called upon to live at the headquarters of the village have created an appreciable demand for the hire of houses even in the remotest villages of the State. The condition in urban areas, where rented houses were already in demand to a lesser or greater extent in the past has been considerably accentuated by growing industrialisation and expansion of thriving towns into centres of business, trade and commerce and the opening of a number of Government offices required to work out the various development schemes. There has thus been an alround demand for rented houses both in rural as well as in urban areas, the extent being greater in larger towns and cities owing to the rapid growth of population and migration from villages.

OVERCROWDING AND CONGESTION

299. The Statement XII.95 on the next page giving number of persons per room and persons per household in each category of households for rural and urban areas shows the extent of congestion prevailing in different parts of the State.

In the State as a whole the number of persons per room comes to 3.27. The proportion rises to 3.49 for rural and falls to 2.76 for urban areas. The average number of persons per household, on the other hand, comes to 5.30 souls as against 5.35 for rural and 5.15 for urban areas. It is significant to note that the average number of persons in the households of different categories goes on progressively increasing with the increase in the number of rooms occupied by the household. The State average which is 4.91 persons—2.53 for males and 2.38 for females, for one room households goes upto 5.61 for households occupying two rooms, to 6·09 for households occupying three rooms, to 6.64 for households occupying four rooms and to 7.49 for households occupying five rooms and more. In rural areas these averages are a little higher than the State and vary from 5.04 persons for households occupying

one room to 6.70 for households having four rooms, the corresponding proportions for urban areas being 4.49 and 6.57. The villages are thus found to be relatively more crowded than the towns in the matter of average number of persons per household of different categories.

STATEMENT XII.95

Number of persons per room and persons per household in each category of households, 1961

(Based on 20% Sample)

	Total No. of persons		1 room		2 rooms		3 rooms		4 rooms		5 rooms and more	
	Per room	Per household	Persons	Average No. of persons per household	Persons	Average No. of persons per household	Persons	Average No. of persons per household	Persons	Average No. of persons per household	Persons	Average No. of persons per household
	1	2	3	4	5	6	7	8	9	10	11	12
Total	3.27	5.30	4.91	4.91	2.80	5.61	2.03	6.09	1.66	6.64	1.21	7.49
Rural	3.49	5.35	5.04	5.04	2.83	5.66	2.05	6.15	1.68	6.70	1.21	7.16
Urban	2.76	5.15	4.49	4.49	2.73	5.45	1.98	5.95	1.64	6.57	1.22	7.73

Source:
Census of India 1961, Vol. V, Gujarat, Part IV-A, *Report on Housing and Establishments*

300. The extent of overcrowding in the different districts of the State will be seen from the following table both for their urban and rural areas.

STATEMENT XII.96

Average number of persons per room in rural and urban areas of the State and districts, 1961

(Based on 20% Sample)

State/District	Average number of persons per room		
	Total	Rural	Urban
1	2	3	4
Banaskantha	4.24	4.40	2.82
Panchmahals	4.11	4.44	2.53
Amreli .	3.89	4.01	3.53
Bhavnagar .	3.80	4.11	3.26
Junagadh .	3.77	4.13	3.11
Rajkot .	3.70	3.80	3.55
Surendranagar	3.57	3.70	3.28
Jamnagar .	3.55	3.94	3.01
Surat .	3.45	3.75	2.68
Gujarat .	**3.27**	**3.49**	**2.76**
Ahmedabad	3.15	3.36	3.02
Sabarkantha	3.13	3.24	2.12
Baroda .	2.96	3.27	2.34
Dangs .	2.86	2.86	..
Broach .	2.84	2.92	2.46
Mehsana .	2.81	3.06	2.04
Kaira .	2.71	2.93	2.05
Kutch .	2.39	2.44	2.21

Source :
Census of India 1961, Vol. V, Gujarat, Part IV-A, *Report on Housing and Establishments*

The State average of 3.27 persons per room is exceeded by 9 districts out of 17. The number of persons per room in Banaskantha and the Panchmahals districts which are predominantly tribal is 4.24 and 4.11 respectively. The higher extent of overcrowding in rural areas as compared to urban areas is also evident from data pertaining to the districts. In the villages of Banaskantha, the Panchmahals, Amreli, Bhavnagar and Junagadh, the number of persons per room is found to be more than 4. In towns, overcrowding is comparatively greater in the districts of Rajkot (3.55), Amreli (3.53), Surendranagar (3.28), Junagadh (3.11) and Ahmedabad (3.02) and the least in Mehsana which has only (2.04) persons and Kaira which has 2.05 persons per room. In the rural areas of Kaira, Broach, Baroda and Mehsana where the level of cultivation is higher and the economic condition of the people relatively better, the number of persons per room is found to be less than 3 or slightly more than three. The district of the Dangs which is exclusively rural has also less than three persons per room, as there is sufficiency of space and availability of cheap building material in its forest areas. Breaking up of joint family system, which is more in evidence in the urban areas than in the rural areas also contributes to greater overcrowding in villages than in towns.

MATERIAL OF WALL AND ROOF

301. The material used in the construction of walls and roofs of dwellings is an index to the prosperity and housing condition of the people living in an area. The tables given below show the distribution of 1,000 census houses used wholly or partly as dwellings by material of wall and roof.

STATEMENT XII.97

Distribution of 1,000 census houses used wholly or partly as dwellings by wall material, 1961

(Based on 20% Sample)

State/District		Grass, leaves, reeds, bamboo	Timber	Mud	Un-burnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stone	Cement concrete	All other material
1		2	3	4	5	6	7	8	9	10
GUJARAT	**R**	**172**	**5**	**436**	**25**	**194**	**3**	**159**	**3**	**3**
	U	**32**	**10**	**80**	**16**	**620**	**13**	**214**	**12**	**3**
1 Jamnagar	R	4	1	56	53	96	5	781	3	1
	U	2	3	56	29	159	11	714	17	9
2 Rajkot	R	2	0	164	93	62	5	673	1	N
	U	4	0	55	20	397	4	515	5	N
3 Surendranagar	R	6	0	552	2	30	1	405	2	2
	U	3	N	193	3	99	4	697	1	0
4 Bhavnagar	R	3	N	678	54	65	1	189	2	8
	U	10	N	135	16	601	5	219	2	12
5 Amreli	R	13	N	669	34	39	1	238	N	6
	U	2	34	348	33	173	24	348	2	36
6 Junagadh	R	11	2	161	86	60	2	677	N	1
	U	2	2	25	14	15	1	937	4	N
7 Kutch	R	11	12	91	10	52	3	792	24	5
	U	8	12	33	N	73	44	648	180	2
8 Banaskantha	R	35	7	698	28	206	4	21	N	1
	U	8	11	136	2	840	0	N	2	1
9 Sabarkantha	R	78	5	659	21	205	1	26	2	3
	U	17	8	136	39	639	7	135	6	13
10 Mehsana	R	16	1	419	1	562	N	N	N	1
	U	6	2	71	3	909	2	4	3	0
11 Ahmedabad	R	24	3	705	25	234	1	3	5	N
	U	5	20	54	3	891	16	7	3	1
12 Kaira	R	54	26	611	3	302	1	N	1	2
	U	29	13	126	36	770	9	1	14	2
13 Panchmahals	R	343	2	564	6	69	1	12	3	N
	U	110	4	96	4	725	5	29	26	1
14 Baroda	R	342	4	393	43	208	4	2	3	1
	U	44	5	70	63	799	6	1	12	N
15 Broach	R	334	2	480	4	172	2	2	1	3
	U	77	1	143	3	765	5	0	4	2
16 Surat	R	663	2	120	17	179	7	3	1	8
	U	189	14	21	12	693	47	7	12	5
17 Dangs*	R	974	0	0	0	10	1	13	1	1

N=Negligible

*Entirely rural

Source :

Census of India 1961, Vol. V, Gujarat, Part IV-A, *Report on Housing and Establishments*

STATEMENT XII.98

Distribution of 1,000 households living in census houses used wholly or partly as dwellings by predominant material of roof, 1961

(Based on 20% Sample)

State/District		Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete & stone slabs	All other material
1		2	3	4	5	6	7	8
GUJARAT	**R**	**104**	**735**	**147**	**2**	**N**	**10**	**2**
	U	**92**	**430**	**299**	**14**	**2**	**159**	**4**
1 Jamnagar	R	34	926	9	2	0	27	2
	U	17	652	60	45	1	215	10
2 Rajkot	R	16	943	9	3	N	29	0
	U	76	754	21	10	N	139	0
3 Surendranagar	R	47	931	6	2	N	3	11
	U	24	878	28	9	1	60	N
4 Bhavnagar	R	18	972	4	1	N	3	2
	U	61	798	20	11	N	107	3
5 Amreli	R	22	973	1	1	0	2	1
	U	20	909	18	4	N	48	1
6 Junagadh	R	29	929	7	1	N	34	N
	U	9	524	10	6	N	450	1
7 Kutch	R	95	882	4	1	N	11	7
	U	28	645	58	33	1	234	1
8 Banaskantha	R	179	752	57	1	1	9	1
	U	58	522	336	5	1	77	1
9 Sabarkantha	R	40	780	172	1	1	6	N
	U	30	341	522	5	N	89	13
10 Mehsana	R	27	672	293	1	N	6	1
	U	51	339	529	5	9	61	6
11 Ahmedabad	R	27	791	160	1	N	21	N
	U	126	198	432	11	1	231	1
12 Kaira	R	23	648	317	3	N	7	2
	U	60	202	612	16	15	93	2
13 Panchmahals	R	164	770	61	2	N	3	N
	U	66	485	267	30	2	150	N
14 Baroda	R	81	479	427	2	N	9	2
	U	197	105	563	16	1	106	12
15 Broach	R	174	549	273	1	N	1	2
	U	111	413	373	8	3	74	18
16 Surat	R	358	555	78	5	N	4	N
	U	185	447	309	22	1	32	4
17 Dangs*	R	454	513	1	24	0	8	0

N=Negligible

*Entirely rural

Source :

Census of India 1961, Vol. V, Gujarat, Part IV-A, *Report on Housing and Establishments*

Material of Wall

302 While mud is the most predominant material of wall in rural areas (43.6 per cent), burnt bricks (62.0 per cent) are very widely used in the construction of walls in urban areas. (i) Burnt bricks (19.4 per cent), (ii) grass, leaves, reeds or bamboo (17.2 per cent) and (iii) stone (15.9 per cent) are next in importance in rural areas, while stone is another important material used in 21.4 per cent of houses in urban areas. Very cheap and locally available material is mainly used in the construction of houses in the villages.

303. There is a very wide variation in the extent to which different types of materials are used in the rural as well as in the urban areas of the different districts, as will appear from the following remarks on the use of these materials, summarised from the Report on Housing and Establishments.

(a) *Mud*

One-third of the rural dwellings in the State have mud walls. But the fact that it is more a material for villages than towns is evidenced by their respective percentages, 43 for the rural and 8 for the urban. These proportions vary from 5.6 per cent for Jamnagar to 70.5 for the rural areas of Ahmedabad district. Mud as material in the construction of wall is for the most part, used in the villages of Ahmedabad, Banaskantha, Bhavnagar, Amreli, Sabarkantha, Kaira, the Panchmahals and Surendranagar districts, where the percentage of such houses is over 55 closely followed by Broach (48), Mehsana (41.9) and Baroda (39.3). The extent, however, of its use is greater in the rural areas of Mainland Gujarat than in Peninsular Gujarat.

(b) *Burnt Bricks*

Burnt bricks are used in nearly one-fifth of the rural and two-third of urban dwellings in the construction of walls. As in the case of mud its use in villages is also greater in the districts of Mainland Gujarat than in the districts of Peninsular Gujarat where the use of stone is proportionately higher. Mehsana leads in the use of burnt bricks in the construction of rural houses. It has 56 per cent of such houses followed by Kaira, which has 30 per cent and by Ahmedabad, Baroda, Banaskantha and Sabarkantha, over 20 per cent. The use of burnt bricks as wall material is quite appreciable in the villages of Mainland Gujarat where the percentage of such houses in all the districts except the Dangs exceeds those in Peninsular Gujarat. Burnt brick is a material which has to be purchased and paid for. It can be used only by those who can afford it. It can also be used in those areas only which enjoy greater material prosperity. Burnt brick is the principal material used in the construction of walls in towns and appropriates 62 per cent of the dwellings. Its use varies from 15 for Junagadh to 909 for the urban areas of Mehsana.

(c) *Unburnt Bricks*

As against 23 for the State, 25 dwellings in rural and 16 in urban areas in every 1,000 are built of unburnt bricks. Similar proportions for the districts vary from 1 for Mehsana to 93 for Rajkot. The use of unburnt bricks which is merely a better substitute for mud is not appreciable even in villages.

(d) *Stone*

This is the third important building material in the State. 174 out of every thousand—159 in rural and 214 in urban—are houses built of stone. The use of stone is substantial in the districts of Peninsular Gujarat and quite insignificant in the districts of Mainland Gujarat. These proportions vary from 2 each for Broach and Baroda to 792 for Kutch in every 1,000 of rural houses. The State average of 159 is, however, exceeded by Bhavnagar (189), Amreli (238), Surendranagar (405), Rajkot (673), Junagadh (677), Jamnagar (781) and Kutch (792), where the existence of stone quarries makes this type of material easily and cheaply available for the construction of village houses.

(e) *Grass, Leaves, Reeds or Bamboo*

The proportion of houses, the wall material of which is grass, leaves, reeds or bamboo is comparatively small in the State as a whole which have only 13.5 per cent of its dwellings made of this type of material. It is used to the maximum extent in the forest areas of the Dangs where 97 per cent of the houses have

walls built of grass, leaves, reeds, etc. While Surat has 66 per cent, the Panchmahals and Baroda 34 per cent each and Broach 33 per cent of such houses, the use of grass, etc., is negligible in the remaining districts where the percentages vary from 0.2 for Rajkot to 7.8 for Sabarkantha. This material is largely favoured in the construction of walls in forest areas mostly inhabited by the tribals where abundance of trees makes them easily available in plenty without incurring any cost.

Its use in towns is negligible except in Surat and the Panchmahals. In towns, it is generally used for the hutments on the outskirts as well as in the slum areas where the living conditions are highly unsatisfactory.

Material of Roof

304. The most predominant roof material used in the construction of houses in the rural areas of the State is tiles, slabs, shingle (73.5 per cent). The next in importance is corrugated iron sheets, zinc and other metal sheets (14.7 per cent) and third in importance is grass, leaves, reeds, thatch, wood and bamboo (10.4 per cent). The order of importance in the urban areas is tiles (43 per cent), corrugated iron sheets (29.9 per cent), concrete and stone slabs (15.9 per cent) and grass, reeds, etc., (9.2 per cent).

Rural Areas

305. The figures of rural areas of different districts show that while tile–*deshi* or local as well as Mangalore–is the most common material used in the construction of roof, the decrease or increase in its proportion is influenced by the use of grass, leaves, reeds, etc., on the one hand or corrugated iron sheets on the other according to the economic condition of the village. Nearly 90 per cent of the houses in the villages of Peninsular Gujarat have tiled roofs. In Mainland Gujarat its use is the least in Baroda and comparatively much less in the Dangs district, where the respective proportions of this type of roofs are 479 and 513. The use of corrugated iron sheets is comparatively larger in Mehsana, Kaira, Baroda and Broach districts than in many others probably due to the prosperous condition of the agriculturists growing commercial crops like cotton and tobacco, who can well afford the replacement of country tiles which was the common roofing material before corrugated iron sheets were in vogue. This does not mean that other areas where corrugated iron sheets are not used, namely, some of the districts of Peninsular Gujarat are all backward or economically poor. For, the coast-line of Saurashtra offers a more modern substitute in the form of Mangalore tiles brought by country-crafts from the southern coast of the country. As is to be expected, the use of brick and lime, concrete and stone slabs and asbestos and cement sheets as roofing material is practically nil or insignificant in the villages of the State.

Urban Areas

306. The observations made above in respect of the extent of use of different types of roofing material in the countryside equally apply to towns, though there are certain variations in the proportions returned by the different districts. The only innovation that the urban areas have introduced in respect of roofs takes the form of terraces built of lime, concrete or stone slabs. For, the town-dwellers who have very little open space in front of their dwellings prefer to have *agashi* or *akashi* or terrace open to the sky which is so very essential for drying clothes, foodgrains, etc., and useful during summer when excessive heat makes it very uncomfortable to sleep indoors. Most of these terraces may not have been accounted for in a housing census, as dwellings having terraces all over the structure will be few and far between. Though the use of brick and lime as roofing material is generally confined to urban areas only, such houses are also to be found in medium and large size villages.

RURAL HOUSING

307. The statistics revealed by the Housing Census dispel the error which is generally common that the urban areas are more overcrowded than the rural. This in fact is not the case, as the overcrowding is greater in villages and lesser in towns. Further, the comparative ease with which land is believed to be available in rural areas at cheaper rates does not conduce to relieve congestion to any

appreciable degree. *Per contra* the former conditions under which land could be easily acquired for the extension of village sites no longer exist. All cultivable land has been brought under the plough, as agriculture is relatively more paying these days than in the past owing to the introduction of cash crops and very high prices they fetch. Extension of village sites has, therefore, become a difficult problem, which is aggravated by the fact that barren land for extension of village sites is scarce and the existing site can be extended only if land under cultivation is acquired. This is not possible in the face of strong opposition of the villagers whose land is proposed to be acquired owing to their natural unwillingness to part with their only means of livelihood. Besides inadequacy of housing space the Report stresses the miserable condition of rural dwellings as regards their construction and building material and the utter lack of even the minimum conveniences and facilities which go to make human existence worth living. In villages environmental conditions are hopeless and social amenities according to any standard very distressing. The problem of rural housing is thus twofold, improvement of existing houses and construction of new ones. The problem assumes gigantic proportions and is beset with innumerable difficulties owing to the backwardness and poor economic condition of the people, which make adoption of even the most modest standards of living and types of housing well-nigh impossible. Generally speaking the housing condition is good or bad according as the economic condition of the people is so. Wherever the level of farming is high and the material condition of the agriculturist shows corresponding improvement, the difference in housing conditions is apparent from their having better and commodious houses provided with all the comforts and conveniences that money can command.

Urban Housing

308. The improvement of housing in towns and cities is also beset with innumerable difficulties, the principal amongst them being paucity of land and funds required for the construction of new houses. The clearance of slum areas or providing housing accommodation for industrial labour is not the only problem the urban areas have to tackle. The unplanned and haphazard growth of towns with their narrow streets and lanes and overcrowding affect other important sections of society also. The middle classes and lower income groups for whom the living conditions have worsened still further after the establishment of new industries and the expansion of trade and commerce in some of the cities and larger towns deserve timely attention, if they are to be enabled to withstand the growing strain of socio-economic changes which are rapidly taking place in the country.

309. The following schemes for the solution of housing problem, the nature and extent of which have been examined above both for the urban and rural areas of the State, are under execution by Government during the Plan periods.

1 Slum Clearance Scheme,

2 Village Housing Project and

3 Town Planning including preparation of Master Plans.

The details of these schemes, financial and physical achievements during the First and the Second Plan periods and targets fixed for the Third Plan will now be examined seriatim.

Slum Clearance Scheme

310. This is a Centrally sponsored scheme implemented through the State Government and local bodies. It provides for the clearance of slum and rehousing of slum dwellers. Under the scheme 37½ per cent each by way of loan and subsidy are given by the Central Government. Out of the remaining 25 per cent, the State Government gives further subsidy of 12½ per cent to the Ahmedabad Municipal Corporation and 15 per cent to other municipalities. Thus the balance only of 12½ per cent is required to be borne by the Ahmedabad Municipal Corporation, and 10 per cent by other municipalities. The overall ceiling costs range between Rs. 3,650 and Rs. 5,100. The rate of interest is about 5 per cent subject to variation from

time to time. The loan is repayable in 30 annual equated instalments of principal and interest.

311. The following table gives figures of provision and achievements made during the Second and Third Five Year Plans.

STATEMENT XII.99

Progress of slum clearance scheme

(Rs. in lakhs)

	Second Five Year Plan				Third Five Year Plan							
	Provision		Achievement		Provision		Achievement					
							Financial			Physical		
Scheme	Financial	Physical Target	Financial	Physical Target	Financial	Physical Target	Upto 1963-64	Anticipated expenditure	Budget Estimate	Upto 1963-64	Anticipated achievement	Target for 1965-66
1	2	3	4	5	6	7	8	9	10	11	12	13
Slum clearance scheme	N.A.	N.A.	64.58*	†	43.75	5,000	10.97	25.42	30.00	1,712	2,272	4,091

N.A.= Not available

Physical Target col. 5:

† 1,872 tenements completed by the Ahmedabad Municipal Corporation; 528 tenements in progress in Ahmedabad City and 616 plots under development by Surat Borough Municipality.

*Includes Rs. 56.95 lakhs from Central Government as loan and subsidy

Source:
Public Works Department, Gujarat State

It will be seen from the above table that during the Second Five Year Plan only Ahmedabad Municipal Corporation and Surat Borough Municipality took advantage of the scheme. As the State of Gujarat formed part of the former Bombay State, separate break up of financial provision and physical targets for the Second Plan are not available. Estimates made for areas included in Gujarat, however, show that the expenditure incurred under this head was Rs. 64.58 lakhs. As regards construction, 1,872 tenements were completed and 528 were under construction by the Ahmedabad Municipal Corporation, whereas the Surat Borough Municipality had 616 plots under development during the said period. The Third Plan provided Rs. 43.75 lakhs and aimed at constructing 5,000 tenements. Against these targets, 1,712 tenements have already been constructed during the first three years of the current Plan at an estimated expenditure of Rs. 10.97 lakhs. It is anticipated that 2,272 tenements will have been constructed during 1964-65 and 4,091 during 1965-66.

312. While the Ahmedabad Municipal Corporation has 8 projects covering 2,984 tenements under the scheme in different parts of the city, the following local bodies also have taken advantage of the scheme.

Name of the Municipality	*No. of tenements*
Mahuva Municipality	132
Rajkot Borough Municipality	166
Baroda Borough Municipality	72

VILLAGE HOUSING PROJECT

313. The object of the scheme formulated for the first time during the Third Plan period is to bring about improvement in houses in rural areas. It aims at enabling the villages to take to construction of new houses in place of old ones or bring about improvement of the existing ones on self-aided basis with free technical guidance and aid and loan from Government repayable in easy instalments in a period of 20 years.

314. Priority is given to the following types of villages:

(a) Villages affected by flood and proposed to be rebuilt in area safer from flood.

(b) Villages in which there is considerable congestion due to increase in population.

(c) Villages in which there is substantial population of backward classes.

(d) Villages in which consolidation of holdings has been completed.

(e) Villages in which programmes for increasing agricultural production are being implemented.

315. The need for providing house sites for weaker sections of the society, particularly landless agricultural labourers is also emphasised during the Third Plan. This scheme is at present confined to villages with large proportion of landless labourers.

As far as possible the Village Housing Scheme envisages use of local labour and local material. Financial aid in form of loan is restricted to $66\frac{2}{3}$ per cent of the cost of construction not exceeding Rs. 2,000 per house and is given either to an individual or to a cooperative society. The scheme has started functioning from the year 1962-63 and has been transferred to the panchayats from April 1963.

316. The Third Plan has made a provision of Rs. 49.00 lakhs under this scheme. The expenditure incurred by the end of 1963-64 comes to Rs. 4.53 lakhs. It is anticipated that an amount of Rs. 5.88 lakhs will have been incurred during the year 1964-65. An amount of Rs. 4.08 lakhs has been provided for the year 1965-66, out of which an amount of Rs. 2.00 lakhs is earmarked for the benefit of landless agricultural labourers.

Town Planning including Preparation of Master Plan

317. With a view to ensure a systematic and orderly development of growing towns and villages and preventing haphazard development following post-war expansion, a scheme for the preparation of Master Plan of towns and villages was originally introduced under the post-war reconstruction and development programme in the First Five Year Plan. As there was no statutory backing to this scheme, there was no satisfactory response from the local authorities during the First Five Year Plan. Legislation had, therefore, been undertaken and the Bombay Town Planning Act, 1954 which replaced the Bombay Town Planning Act of 1915, came into force on 1st April 1957. Under this Act, the local authorities have an obligation to prepare a Master Plan/development plan of the area within their jurisdiction within four years of that Act coming into force, and are also empowered to control developments within their jurisdiction. Saurashtra Town Planning Act, 1955 on similar lines is also in force in Saurashtra areas.

318. During the First Five Year Plan, Master Plans for the towns of Viramgam, Nadiad, Surat, Kapadvanj and Broach were prepared; and preliminary work was carried out with regard to the preparation of Master Plans for the towns of Amreli, Bulsar, Godhra and Modasa. The expenditure incurred during the First Five Year Plan was Rs. 18,485.81.

319. During the Second Five Year Plan, Town Planning and Valuation Department undertook to prepare development plans for the local authorities as they had no technical staff of their own, and prepared development plans for the following towns:

(1) Amreli	(8) Cambay
(2) Modasa	(9) Borsad
(3) Kalol	(10) Padra
(4) Dholka	(11) Bulsar
(5) Sidhpur	(12) Dohad
(6) Dhandhuka	(13) Patan and
(7) Anand	(14) Porbandar.

In addition, preliminary data required for formulating proposals for the development plans of Rajkot and Jamnagar Cities were also collected.

320. During the Second Five Year Plan, against a provision of Rs. 346,200, an expenditure of Rs. 168,173 has been incurred. The Third Five Year Plan has provided Rs. 1,000,000 for the preparation of development plans of 30 towns at a rate of 6 towns per year.

The development plans for the following 11 towns have already been prepared by now.

(1) Unjha
(2) Kadi
(3) Mehsana
(4) Mehmedabad
(5) Kaira
(6) Godhra
(7) Junagadh
(8) Bhuj
(9) Rajkot
(10) Bilimora and
(11) Anklesvar.

321. The primary work of collection of data and formulating tentative proposals is also in progress in respect of the following nine towns:

(1) Vadnagar
(2) Nadiad
(3) Petlad
(4) Dabhoi
(5) Navsari
(6) Broach
(7) Veraval
(8) Jamnagar and
(9) Una.

322. To meet the paucity of trained technical personnel, four technical members of the Town Planning Department are at present receiving trainings at the School of Town and Country Planning, New Delhi.

323. In addition to the above schemes the project for the preparation of development plans of the following areas has also been undertaken under the centrally sponsored scheme of assistance to State Government.

(1) Ahmedabad Metropolitan area,
(2) Baroda Metropolitan area,
(3) Surat City,
(4) Rajkot City.

324. The work of preliminary survey of Surat City is in progress and that of Rajkot City is nearly completed. Preparation of development plans of the industrial township at Koyali near Baroda is in progress. Similar plans for industrial zone 'A' near Ahmedabad and detailed lay-outs of pockets at Naroda, Odhav and Vatwa admeasuring approximately 180, 205 and 1,100 acres respectively have been prepared. Lay-out of residential pockets admeasuring about 305 acres at Naroda has also been prepared.

HOUSING BOARD

325. Government has formulated various schemes for execution through the State Housing Board. The progress made in their execution during the First and the Second Plan periods together with the targets fixed for the Third is reviewed as under.

(1) SUBSIDISED INDUSTRIAL HOUSING SCHEME

326. Under this scheme an industrial worker covered by the Factory Act, 1948 whose monthly income does not exceed Rs. 350 is eligible for tenement at subsidised rent. The ceiling for such a tenement ranges from Rs. 3,300 to Rs. 3,700 towards which the Central Government grants 50 per cent by way of loan and 50 per cent as subsidy to the State Government. The following table gives figures of tenements constructed during the First and the Second Five Year Plans and targets for the Third under the Subsidised Industrial Housing Scheme.

STATEMENT XII.100

Subsidised industrial housing scheme

Sl. No.	Location	No. of tenements constructed		Targets for Third Plan (No. of tenements)
		First Five Year Plan	Second Five Year Plan	
1	2	3	4	5
1	Ahmedabad	6,016	4,006	5,808
2	Surat	150	100	360
3	Nadiad	50	50	120
4	Baroda	..	212	652
5	Bilimora	..	25	25
6	Kalol	..	125	..
7	Navsari	..	100	..
8	Viramgam	..	25	..
9	Rajkot	400	830	486
10	Jamnagar	500	..	264
11	Surendranagar	100	400	..
12	Porbandar	40	100	120
13	Bhavnagar	500	214	372
14	Mahuva	100	..	..
15	Dhrangadhra	60	74	..
16	Limbdi	..	50	..
17	Veraval	..	100	..
18	Wankaner	..	60	..
19	Morvi	..	50	..
20	Sikka	..	60	..
21	Shahpur	..	40	..
22	Ranip (near Ahmedabad)	..	..	200
23	Sidhpur	..	..	120
24	Bhuj	..	..	50
25	Broach	..	..	24
26	Amreli	..	..	24
	Total	**7,916**	**6,621**	**8,625**

Source :
Housing Commissioner, Gujarat Housing Board

327. Out of a total of 14,537 tenements constructed during the past decade, 7,916 were constructed during the First Plan and 6,621 during the Second. The target fixed for the Third Plan (8,625) will raise the total number of such tenements to 23,162. Only 26 towns have been so far selected for construction of industrial housing tenements. Ahmedabad which is the highly industrialised city appropriates most of the allocations under the scheme. Of the rest, Rajkot shows considerable progress as compared to other places.

LOW INCOME GROUP HOUSING SCHEME

328. Persons whose monthly income does not exceed Rs. 500 per month are eligible for loan under this scheme. The amount of loan granted is 80 per cent of the estimated cost of the tenement or Rs. 8,000 whichever is less. The following eight towns have been selected in the first instance for the implementation of the Low Income Group Housing Scheme.

Sl. No.	Location	No. of tenements constructed during		Target for Third Plan (No. of tenements)
		First Five Year Plan	Second Five Year Plan	
1	2	3	4	5
1	Ahmedabad	..	300	1,248
2	Baroda .	..	..	280
3	Surat .	..	..	40
4	Rajkot .	..	..	146
5	Bhavnagar	..	..	152
6	Amreli .	..	..	20
7	Bhuj .	..	..	16
8	Bulsar .	..	..	48
	Total		**300**	**1,950**

Source :
Housing Commissioner, Gujarat Housing Board

329. The scheme came into operation during the Second Plan period, when 300 tenements were constructed only at Ahmedabad. The targets fixed for the Third Plan aims at covering 7 more towns with 1,950 tenements out of which 1,248 or 64 per cent will be at Ahmedabad alone.

MIDDLE INCOME GROUP HOUSING

330. No tenements were constructed under the Middle Income Group Housing Scheme during the first two Plan periods. Targets for construction of tenements during the Third Plan period are as under.

1	Ahmedabad	308
2	Baroda	24
3	Rajkot	222
4	Bhavnagar	156
	Total	**710**

HOUSING OF GOVERNMENT EMPLOYEES

331. In order to provide residential accommodation for its employees, Government in P.W.D. has provided a Scheme for the housing of Government employees. Under this scheme 586 quarters for Class III and Class IV Government servants have been constructed at an estimated cost of Rs. 62 to 87 lakhs during the Second Plan period.

332. The foregoing analysis goes to show that whatever the efforts so far made have hardly touched the fringe of the problem of housing in towns and villages. For years to come, it is not likely to be any nearer to the solution because of its gravity and the magnitude of the financial implications involved. A beginning has to be made in right earnest, if the existing disparities in housing conditions and overcrowding, which are the lot of a majority of the people of the State, are to end some day. Organised and concerted efforts by the public and private sectors are needed to push through a comprehensive programme of (i) slum clearance in towns and villages and (ii) provision of standard housing. Above all what is urgently needed are systematic planning, technical advice, type designs, adequate financial aid and evolution of cheap and durable housing material which can be prefabricated and utilised for the construction of rural houses. The problem can best be solved by intensifying cooperative activity, which alone will give much needed relief to the various sections of the people living in villages and towns.

D—Backward Classes

PRELIMINARY REMARKS

333. As a directive principle of the State policy, Article 46 of the Constitution lays down that the State shall promote with special care, the educational and economic interests of the

weaker sections of the people and in particular, of the Scheduled Castes and Scheduled Tribes and shall protect them from social injustice and all forms of exploitation. In accordance with this directive principle, various programmes and ameliorative measures have been undertaken in the First, Second and Third Five Year Plans for bringing the members of these communities to the level of the rest of the society.

REGIONAL DISTRIBUTION

334. Though both the Scheduled Castes and Scheduled Tribes represent the economically weaker strata of society, their problems differ, and have to be viewed with special reference to the environments in which they live and the occupations they pursue. Unlike Scheduled Castes who are found in almost every village, the population of Scheduled Tribes is concentrated in certain well-defined areas located in forest and hilly tracts engaged in exploitation of forest produce and cultivation of land. But the Scheduled Castes, scattered as they are in rural and urban areas are employed in various avocations like cultivation, weaving, scavenging, leather tanning and currying of hides and skins, etc. According to 1961 Census, the Scheduled Caste population constitutes 6.63 per cent of the total population of the State as against 13.35 per cent of Scheduled Tribes inhabiting the State. Rural-urban distribution of Scheduled Caste and Scheduled Tribe population reveals that Scheduled Castes comprise 6.74 and Scheduled Tribes 17.08 per cent of the total rural population, whereas in case of urban population, the respective percentages are 6.29 and 2.59. The concentration of Scheduled Tribes in rural areas and the scattered pattern of distribution of Scheduled Caste population in rural and urban areas are again supported by 94.99 per cent of total Scheduled Tribes residing in rural areas and 5.01 in urban areas against 75.56 and 24.44 per cent respectively of Scheduled Castes. District-wise distribution of Scheduled Caste and Scheduled Tribe population also shows that the former is spread out in all the districts roughly in proportion to the general population but 95.17 per cent of the Scheduled Tribes are concentrated in six districts of Surat (44.47), the Panchmahals (18.27), Broach (13.47), Baroda (11.91), Sabarkantha (4.65) and the Dangs (2.40). 92.55 per cent of the total population in the Dangs, half the total population of Surat, a little more than one-third of the Panchmahals, a little more than one-fifth of Baroda and two-fifth of Broach district are tribal.

WORKERS

335. The distribution of Scheduled Castes and Scheduled Tribes by agricultural and non-agricultural pursuits as revealed by census figures brings out the relative importance of both these sectors.

STATEMENT XII.101

Distribution of Scheduled Castes and Scheduled Tribes by agricultural and non-agricultural pursuits, 1961

Workers	Scheduled Castes			Scheduled Tribes		
	Persons	workers Per cent	population Per cent	Persons	workers Per cent	population Per cent
1	2	3	4	5	6	7
Total workers . .	**582,058**	**100.00**	**42.57**	**1,479,742**	**100.00**	**53.72**
A–Agriculture . . (Categories I & II)	*319,514*	*54.89*	*23.37*	*1,335,205*	*90.23*	*48.47*
Cultivators . .	151,279	25.99	11.06	875,084	59.14	31.77
Agricultural labourers .	168,235	28.90	12.31	460,121	31.09	16.70
B–Non-agriculture . . (Categories III to IX)	*262,544*	*45.11*	*19.20*	*144,537*	*9.77*	*5.25*

Of the total Scheduled Caste workers, 54.89 per cent are employed in agriculture (Categories I and II) and 45.11 per cent in non-agricultural pursuits (Categories III to IX) as against 90.23 and 9.77 per cent respectively among Scheduled Tribes. This distribution clearly illustrates the overwhelming importance of agricultural pursuits in case of Scheduled Tribes and the mixed type of occupational complex prevalent among Scheduled Castes.

DISTRIBUTION BY INDUSTRIAL CATEGORY

336. Distribution of Scheduled Castes and Scheduled Tribes by industrial category in rural and urban areas given in the following statement brings out the importance of certain occupations which provide them with their livelihood.

STATEMENT XII.102

Distribution of Scheduled Castes and Scheduled Tribes by industrial category

Industrial Category	Scheduled Castes				Scheduled Tribes			
	Rural		Urban		Rural		Urban	
	Percentage to total Scheduled Caste population	Percentage of Scheduled Castes to total rural population	Percentage to total Scheduled Caste population	Percentage of Scheduled Castes to total urban population	Percentage to total Scheduled Tribe population	Percentage of Scheduled Tribes to total rural population	Percentage to total Scheduled Tribe population	Percentage of Scheduled Tribes to total urban population
1	2	3	4	5	6	7	8	9
Total population	**100.00**	**6.74**	**100.00**	**6.29**	**100.00**	**17.08**	**100.00**	**2.59**
Total workers	45.64	6.85	33.08	6.96	54.34	20.65	42.03	3.65
I As Cultivator	14.45	3.40	0.58	1.52	33.30	19.85	2.75	2.94
II As Agricultural labourer	15.98	13.55	0.93	9.28	17.28	37.10	5.86	24.15
III In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting Plantations, Orchards and Allied activities	0.49	5.91	0.39	6.77	0.62	18.98	0.85	6.06
IV At Household Industry	5.98	13.62	1.56	5.09	0.66	3.83	0.62	0.83
V In Manufacturing other than Household Industry	1.01	10.48	12.28	9.40	0.43	11.27	8.67	2.74
VI In Construction	0.89	17.59	1.48	13.07	0.18	8.89	1.22	4.45
VII In Trade and Commerce	0.15	1.00	0.56	0.72	0.13	2.16	1.74	0.93
VIII In Transport, Storage and Communications	0.26	5.87	1.75	5.17	0.19	10.95	2.57	3.14
IX In Other Services	6.43	17.13	13.55	9.87	1.55	10.47	17.75	5.33
X Non-workers	54.36	6.66	66.92	6.00	45.66	14.17	57.97	2.15

Of the total Scheduled Caste population in rural areas, 45.64 per cent are workers and 54.36 per cent are non-workers, the respective percentages for urban areas being 33.08 and 66.92.

In case of Scheduled Tribes the percentage distribution of workers and non-workers is 54.34 and 45.66 in rural areas and 42.03 and 57.97 in urban areas.

Scheduled Castes

337. Classification by categories of workers reveals that of the total Scheduled Caste population in rural areas, 30.43 per cent are engaged in agriculture as against 1.51 per cent only in towns. In villages, household industries such as weaving, working in tanning and currying of leather, etc., constitute important sources of occupation for Scheduled Castes who account for 13.62 per cent of workers in household industry in rural areas. In urban areas, the two categories, "manufacturing other than household industry" and "other services" jointly claim 25.83 per cent of the total Scheduled Castes in towns.

338. In view of the importance of the occupations of tanning and currying of hides and skins and scavenging, special classification for these occupations for Scheduled Castes was undertaken in 1961 Census. These two occupations claim 6.19 per cent of total Scheduled Caste workers, 3.95 per cent in rural areas and 15.78 per cent in urban areas. The higher percentage in the latter is due to scavenging in which they are for the most part employed in towns. Of the total Scheduled Caste workers engaged in household industry, nearly one-fourth (24.95 per cent) are engaged in tanning and currying of hides and skins. Of those engaged in tanning and currying, 87.54 per cent are from rural areas and 12.46 per cent from urban areas. In case of persons engaged in scavenging, 20.58 per cent worked in rural areas and 79.42 per cent in urban areas. That these two occupations are generally associated with caste names can be best seen from the fact that of the total Scheduled Castes engaged in tanning and currying of hides and skins, as many as 87.72 per cent belong to Chamadia, Chamar and Meghwal castes and 91.11 per cent of those engaged in scavenging belong to Bhangi, Mehtar and Olgana castes.

Scheduled Tribes

339. The distribution of Scheduled Tribes by industrial categories in rural areas shows that a little more than half work in agricultural pursuits. Of the rest 45.66 per cent are non-workers, percentage distribution in all other categories being below 1 except in other services where it is 1.55. The association of tribals with forests is discernible in the relatively greater proportion of persons returned under Category III. Of the total persons engaged under Category III in rural areas, 18.98 per cent belong to Scheduled Tribes, and bring out the predominance of forests as one of the important sources of livelihood in the tribal economy. The tribals constitute only 2.59 per cent of the total urban population, as due to their close relationship with rural economy, non-agricultural occupations in towns do not seem to attract them.

Participation Rate

340. The general rate of rural participation (44.96 per cent) is less than the corresponding rates returned by Scheduled Castes (45.64) and Scheduled Tribes (54.34). In urban areas, the general participation rate of 29.88 rises to 33.08 and 42.03 respectively for Scheduled Castes and Scheduled Tribes. The participation rate by sex reveals that male participation rate in the general population (53.47) is slightly higher than the corresponding rate among Scheduled Castes (51.25). But in case of Scheduled Tribes, the male participation rate (58.25) is higher than one noticed for the general population. The female participation rate among Scheduled Castes (33.64) and Scheduled Tribes (49.06) is much higher than that in the general population (27.89). These figures bring out the prevalent living conditions among Scheduled Castes and Scheduled Tribes, wherein female contribution to the working force is valued to supplement their meagre earnings.

LITERACY AND EDUCATION

341. Spread of education among Scheduled Castes and Scheduled Tribes is an important prerequisite to their social and economic uplift. Special concessions have, therefore, been given in the field of education in view of their backwardness and various handicaps from which they suffer. By and large, the State assistance in the initial period consisted of payment of tuition fees, examination fees and scholarships to students, in addition to grants paid by the State Government to voluntary agencies for providing hostel facilities to backward class students. As these concessions and assistance were given subject to certain conditions, the backward classes could not

avail of the full benefits of these measures. The Government with effect from 1959-60, therefore, undertook the responsibility of paying tuition fees and examination fees to backward class students at all stages of their education, regardless of the income of parents or guardians and irrespective of the age of students. It is expected that about 4,657 Scheduled Caste and 10,650 Scheduled Tribe students will be benefited under this programme during the Third Plan. The policy of giving scholarships and grants to backward class hostels also has been liberalised. The problem of education of Scheduled Tribes is of a peculiar nature and presents certain difficulties, as they live in hilly and forest areas which are not easily accessible. It has been, therefore, found necessary to start residential schools where students can stay and study. The Third Plan proposes to open 25 Ashram schools at a cost of Rs. 27.00 lakhs. In order that the basic education received by Scheduled Tribe students is not nullified on completion of their studies, a post-basic Ashram school, multicraft and multipurpose—where education almost equivalent to S.S.C. can be imparted is also proposed to be opened in the Third Plan. At the end of the Second Plan there were 50 hostels for boys and 20 hostels for girls of Scheduled Tribes with an admission capacity for about 2,500 inmates. All these schemes have helped considerably in promoting educational progress among Scheduled Tribes.

342. Literacy and the levels of educational attainment among Scheduled Castes and Scheduled Tribes as revealed by 1961 Census figures provide a useful index about the progress achieved in the field of education. The gap that exists between the general population and the Scheduled Castes and Scheduled Tribes in different educational levels in rural and urban areas is illustrated by the table given below.

STATEMENT XII.103

Percentage distribution of general population, Scheduled Castes and Scheduled Tribes by educational levels in rural and urban areas, 1961

Educational levels	Rural			Urban		
	Per cent of general population	Per cent of Scheduled Caste population	Per cent of Scheduled Tribe population	Per cent of general population	Per cent of Scheduled Caste population	Per cent of Scheduled Tribe population
1	2	3	4	5	6	7
Total . .	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
1 Illiterate . .	75.91	80.24	88.68	51.23	69.17	81.20
2 Literate (without educational level) . .	9.17	8.77	3.95	11.49	11.09	5.28
3 Primary or Junior Basic .	14.53	10.85	7.34	32.71	18.87	13.28
4 Matriculation and above .	0.39	0.14	0.03	4.57	0.87	0.24

343. These statistics show that the Scheduled Castes and Scheduled Tribes who were suffering from various handicaps and were not aware of the importance of education in the past have been gradually realising the need for educating their children. The liberal assistance offered by Government and multifarious schemes advanced for promotion of education during the various Plan periods have helped spread of literacy and education among them, though the level of literacy is much lower than that of the general population. Between Scheduled Castes and Scheduled Tribes, the latter who live in their own world in forest areas and remain completely uninfluenced by the currents of civilisation have not yet realised the need for education to that extent to which it is done by Scheduled Castes. Literacy among Scheduled Castes and Scheduled Tribes is higher in towns than in villages. Another noteworthy feature is that though the level of educational attainment is for the most part confined to primary or junior basic standard, there is some headway made also in higher educational levels which claim 2,933 matriculates, 46 technical diploma/degree holders and 250 university or post-graduate degree

holders. These figures reveal the growing consciousness among these backward sections of the community who are gradually becoming alive to the needs of higher education to better their economic prospects.

Economic Upliftment

344. The progress in educational field alone will not help Scheduled Castes and Scheduled Tribes improve their economic condition. Schemes for economic upliftment have to be simultaneously undertaken to enable them to take their rightful place in society. Various schemes relating to agriculture, forest, irrigation, small industries, transport and communications provide them with liberal financial assistance for the purchase of ploughs, bullocks, seeds, tools and implements. Financial assistance in the form of loans and subsidies is also given to the members of these communities for various agricultural activities, such as construction of wells, installation of oil-engines and pumps, reclamation of waste lands, contour bunding, purchase of improved seeds, implements, etc. Under the cottage industries schemes, only trained artisans were previously eligible to receive help by way of loan-*cum*-subsidy. But under the new scheme introduced since 1959-60, every one who engages himself either in a hereditary or new profession is eligible to receive loan-*cum*-subsidy upto a maximum of Rs. 500 per individual. Under the Scheduled Castes Welfare Programme, housing facilities are proposed to be provided for 453 families of sweepers and scavengers during the current Plan period. Their working condition is sought to be improved by payment of fair wages and share in the profits earned by the working of forest coupes. A sum of Rs. 17.23 lakhs has been provided in the Third Plan for improving the economic condition of forest labourers, by organising them in cooperative societies and providing them with the necessary finances to work them. Two production-*cum*-training centres for Scheduled Castes and one for Scheduled Tribes were organised during the Second Plan. Two more such centres for Scheduled Castes and 4 for Scheduled Tribes have also been organised in the first year of the Third Plan. These centres help them adopt new methods and techniques in industries like tailoring, carpentry, fibre, tanning and leather, and increase their opportunities for making a comfortable living. One Tribal Research and Training Centre is being set up during the Third Plan with a view to provide training and orientation of personnel to suit the needs of tribal communities.

Unemployment

345. Employment and unemployment are two important aspects closely related to economic well-being. The census data regarding unemployment of Scheduled Castes and Scheduled Tribes reveal that there were 6,317 unemployed among Scheduled Castes and 2,020 among Scheduled Tribes. Of the former, 2,714 were seeking employment for the first time and 3,603 were employed before but now out of employment and seeking work at the time of census enumeration. Among Scheduled Tribes 681 were returned in the first category and 1,339 in the second. These statistics show that the real problem is one of providing them with continuous employment rather than unemployment, so that they have some regular income all the year round.

Interest in Land and Size of Land Holding

346. Land is one of the basic factors of production on which depends the livelihood of both these communities. More than half the total Scheduled Caste workers (54.89 per cent) are engaged in agricultural pursuits as against 90.23 per cent of the Scheduled Tribes. The 1961 Census gives data regarding size of land cultivated cross-tabulated by interest in land, on the basis of 20 per cent sample households in rural areas only. Among Scheduled Castes, 86.15 per cent of cultivating households possessed land either owned or held from Government, 5.71 per cent from private persons or institutions for payment in money, kind or share and 8.14 per cent possessed land partly held from Government and partly from private persons for payment in money, kind or share. The corresponding figures by interest in land in case of Scheduled Tribes are 83.02, 7.62 and 9.36 per cent. The proprietory interests acquired on the implementation of land reforms are equally reflected in the lands held by both these communities, as in the case of the general population.

347. Since the size of land holdings provides an important index about the economic conditions of the holders, the number of cultivating households by size of land holdings with their percentage distribution is examined in the following table.

STATEMENT XII.104

Distribution of Scheduled Caste and Scheduled Tribe households by size class of land held, 1961

(Based on 20% Sample)

Size of land holding (in acres)	Scheduled Castes		Scheduled Tribes	
	Number of cultivating households	Per cent	Number of cultivating households	Per cent
1	2	3	4	5
Total	**15,113**	**100.00**	**58,677**	**100.00**
Less than 1	1,323	8.75	2,504	4.27
1.0- 2.4	3,993	26.42	12,487	21.28
2.5- 4.9	3,308	21.89	15,244	25.98
5.0- 7.4	2,198	14.54	11,379	19.39
7.5- 9.9	1,133	7.50	5,333	9.09
10.0-12.4	962	6.37	4,367	7.44
12.5-14.9	311	2.06	1,770	3.02
15.0-29.9	1,349	8.93	4,526	7.71
30.0-49.9	382	2.53	739	1.26
50+	61	0.40	159	0.27
Unspecified	93	0.61	169	0.29

More than half the cultivating households—57.06 per cent in case of Scheduled Castes and 51.53 per cent in case of Scheduled Tribes are having holdings less than 5 acres. The percentage of cultivating households having medium and large-sized holdings is comparatively very small and makes farming uneconomic.

SPECIAL DEVELOPMENT PROGRAMME IN TRIBAL AREAS

348. With a view to have an intensive and coordinated development of tribal areas on the general pattern of community development programme, 19 development blocks and 3 multi-purpose blocks have been started under the Scheduled Tribes Welfare Programme and 19 more are proposed to be opened in 1964-65. The experience of the working of these blocks has revealed that some of the basic problems faced by Scheduled Tribes in relation to their economic development, education, communications, etc., are being gradually covered under this programme which is a major step towards alround economic development of the tribals.

HEALTH, HOUSING AND OTHER SCHEMES

349. The scheme of cooperative housing for backward classes is in force since October, 1948. About 672 housing societies of Scheduled Castes and Scheduled Tribes were registered under the scheme upto the end of the Second Five Year Plan, of which about 223 were fully financed. Of 449 societies that remain, Government is considering the provision of loan and subsidy to 71 and payment of subsidy for acquisition of land to 50. The Dangs Housing Board established in 1950-51 for constructing houses for Adivasis has built 1,441 houses by the end of the Second Plan and will build 1,048 more during the Third. Medical and health facilities, cultural centres like Balwadis and *sanskar kendras* and grant of legal assistance in civil and criminal suits are also to be provided at an estimated cost of Rs. 33.05 lakhs. The health programme consists of the provision of drinking water facilities, starting of subsidiary health units, free medical aid to Scheduled Tribes and supply of medical chests in Scheduled areas. The Sarvodaya Development Scheme envisages alround socio-economic development of the people mostly Adivasis. At the beginning of the Third Plan there were 16 Sarvodaya centres in the State. In accordance with the recommendations of the Sarvodaya Evaluation Committee, 10 Sarvodaya Kendras which were in existence for more than 10 years have been shifted to other places in the same district having regard to the backwardness of these tracts. Paucity of communication facilities in the tribal areas is proposed to be removed in the Third Plan by constructing 150 miles of roads, culverts, etc.

350. All these schemes aiming at the social uplift and economic betterment of the backward and disadvantageous classes have created a frame-work for planned approach to their problems. The results they have yielded though not striking in the initial stages are nevertheless reflected in the improvement of their former condition and growing consciousness to march with the times.

SECTION 20

PRICE LEVEL AND CONSUMPTION

CONSUMER PRICE INDEX (WORKING CLASS)

351. The State of Gujarat was formed in 1960 and hence the index number of wholesale prices from 1950 to 1961 in respect of the State of Gujarat is not available. Comparable continuous price series is also not available to trace the trends in prices.

352. Ahmedabad is the main industrial centre in Gujarat and hence the consumer price index number (working class) for that city may be taken to be representative of the whole of State.

The general price situation in the State is, therefore, examined for the years 1951 to 1961 with the help of the consumer price index for working class in Ahmedabad City, as it is constructed for this centre only. The base year is taken to be the year ending 31st July, 1927. But for comparing the movement of the index with that of all-India, index with 1949=100 has been presented in the table given below. The sub-group index for 'food' is also given along with the general index.

STATEMENT XII.105

Consumer price index number, all-India and Ahmedabad City (working class)

(*Base*: *1949=100*)

All-India/Ahmedabad	1951	1956	Percentage change in 1956 over 1951	1961	Percentage change in 1961 over 1956	Percentage change in 1961 over 1951
1	2	3	4	5	6	7
I ALL-INDIA						
1 Food . .	**104**	**105**	**+0.96**	**121**	**+15.24**	**+16.35**
2 General . .	**105**	**105**	**0.00**	**126**	**+20.00**	**+20.00**
II AHMEDABAD CITY						
1 Food . .	105	97	—8.25	127	+30.93	+20.95
2 General . .	105	98	—7.14	121	+23.47	+15.24

Source :
Indian Labour Statistics, 1962

353. All-India consumer price level both for the general group and food group showed a slightly higher rise than that for Gujarat at the end of the First Plan. During the Second Plan period, the index for Gujarat registered a higher percentage (23) increase than that for the country as a whole (20).

354. The general price index declined for Ahmedabad City from 105 to 98 during the First Five Year Plan period registering a 7 per cent decline in 1956 over the 1951 level. The consumer price index which was 98 in the first year of the Second Plan rose to 121 at its end, registering an increase of 23 per cent. But the overall rise in consumer price index (working class) between 1951 and 1961 was of the order of 15 per cent.

355. The consumer price index for the food group was 105 in the first year of the First Plan which went down to 97 at its end indicating a decline of 8 per cent during the First Plan period. During the Second Plan period, the index showed a rising tendency and went up from 97 in 1956 to 127 in 1961. The percentage rise in 1961 over 1956 was 31. The overall increase from 1951 to 1961 was 21 per cent.

356. The break up that follows compares index numbers for some of the important items with the year 1927 as base.

STATEMENT XII.106

Consumer price index numbers for working class (Ahmedabad City), 1951-61

Base : Average from August 1926 to July 1927=100

Year		Food	Fuel and light-ing	Cloth-ing	House rent	Mis-cella-neous	Cost of living
1		2	3	4	5	6	7
Weight proportional to total expenditure		58	7	10	12	4	91
1951	Average	269	298	338	107	341	261
1952	„	269	281	337	107	336	259
1953	„	295	280	338	107	329	275
1954	„	246	270	339	107	331	244
1955	„	206	257	339	107	325	217
1956	„	248	271	339	107	327	244
1957	„	268	282	339	107	335	259
1958	„	291	283	339	107	341	274
1959	„	340	327	339	107	349	309
1960	„	322	337	339	107	349	298
1961	„	324	342	339	107	357	300

Source :

Commissioner of Labour, Gujarat State

The general cost of living has risen from 261 in 1951 to 300 in 1961 and registered an increase of 39 points during the decade. Trends in the general cost of living are not consistent and fluctuate from year to year. All the items except 'clothing' and 'house rent' have shown a varied degree of rise during the period under review. The 'food group' had the highest index (340) in 1959 and the lowest (206) in 1955; 'fuel and lighting' showed an increase of 44 points in 1961 over the index prevailing in 1951; whereas 'miscellaneous' items returned the highest index (357) in 1961 and the lowest (325) in 1955. The price index of 'clothing' remained constant at 339 since 1954 and varied but little between 1951 and 1953. Under 'house rent' the index stabilised itself at 107 during the entire period under review.

PATTERN OF CONSUMER EXPENDITURE, 1958-59 TO 1961-62

357. The Government of India are undertaking multipurpose statistical surveys on an all-India basis through the National Sample Survey conducted by the Directorate of the National Sample Survey functioning under the Central Secretariat. These surveys are designed to give estimates on an all-India basis. In order to obtain reliable estimates of broad aggregates at the State level, the State Statistical Bureau is also participating in the programme by surveying an independent matching sample of equal size and adopting the same concepts, definitions and schedules for the survey. The pooling of data collected by the Central and State samples for deriving the relevant estimates would increase the precision of the estimate under this programme. The data on various topics such as employment and unemployment, consumer expenditure, population, births, deaths, etc., are collected in different rounds, each round being generally of one year's duration, by adopting an interpenetrating network of sub-samples.

358. The consumer expenditure comprises household expenditure which relates to domestic consumption. The expenditure on household enterprise is not included. The transfer payments such as gifts, loans, remittances, etc., are excluded, but the consumption out of transfer receipts for domestic purposes is taken into account. In case of food items, fuel and light and clothing, the monetary value of commodities consumed during the reference period is taken as consumer expenditure, whereas in the case of other non-food items, the monetary value of articles acquired during the reference period represents the consumer expenditure. Total consumption includes consumption out of home-grown stock as well.

359. The results given here are based on data collected during the 14th to 17th rounds of the survey, covering the period of four successive years, viz., 1958-59 to 1961-62. The limitations underlying the analysis should, however, be kept in view in making use of these results. Some of the important limitations are the changes in prices of commodities over the period of four years, and the sampling fluctuations inherent in a sample survey. These limitations impose an important restriction on the comparability of the results over different years. Moreover, the results presented here in respect of the 14th to 16th rounds are based on pooling of data collected in the State and the Central samples, whereas the results of the 17th round are based on the State sample only, as the data of the Central sample are not available. This might also have some effect on the comparison of data of the 17th

round with those of the previous rounds.

Per capita CONSUMER EXPENDITURE BY CLASS

360. The *per capita* consumer expenditure and its pattern on various items of consumption would broadly indicate the level of living of a household. The present analysis, therefore, relates to the proportion of households classified by average monthly *per capita* expenditure on various groups of items of consumption and the percentage of expenditure they bear to total expenditure on all such items. The results are given for the State as a whole and also separately for its rural and urban areas.

STATEMENT XII.107

Percentage distribution of households by monthly *per capita* expenditure classes

Per capita Consumer expenditure class (in Rs.)	14th round (1958-59)			15th round (1959-60)			16th round (1960-61)			17th round (1961-62)		
	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State
1	2	3	4	5	6	7	8	9	10	11	12	13
0—15	40.66	16.38	33.26	37.53	16.97	31.36	28.01	11.89	23.62	23.92	8.64	19.78
15—24	36.25	32.58	35.14	34.21	28.64	32.53	40.24	31.68	37.90	40.80	39.66	40.49
24—34	14.04	20.38	15.97	17.34	26.55	20.10	21.21	22.19	21.48	24.54	22.14	23.90
34—55	7.61	19.65	11.27	9.92	19.55	12.82	8.46	21.62	12.04	10.43	19.51	12.89
55 and above	1.44	11.01	4.36	1.00	8.29	3.19	2.08	12.62	4.96	0.31	10.05	2.94
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
No. of samples	618	247	865	633	248	881	283	322	605	182	252	434

NOTE :

1. The data for 14th to 16th rounds are based on State and Central samples.
2. The data for the 17th round are based on the State sample only.

Source :

Director, Bureau of Economics and Statistics, Gujarat State

361. The above statement presents the percentage distribution of households by various monthly *per capita* expenditure classes, viz., Rs. 0–15, Rs. 15–24, Rs. 24–34, Rs. 34–55 and Rs. 55 and over. It indicates that the proportion of households reporting lowest *per capita* expenditure has decreased over time, while the porportion of middle *per capita* expenditure classes has increased to some extent during the years under study. However, in view of the small size of sampled households, it would be more realistic to examine the pattern of distribution by recasting them into a smaller number of classes, viz., Rs. 0–15, Rs. 15–34 and Rs. 34 and above. The inferences derived from such a classification will be more objective, as the margin of error will considerably decrease. The relevant table with only three major classes noted above is presented below.

STATEMENT XII.108

Percentage distribution of households by broad monthly *per capita* expenditure classes

Per capita consumer expenditure class (in Rs.)	14th round (1958-59)			15th round (1959-60)			16th round (1960-61)			17th round (1961-62)		
	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State
1	2	3	4	5	6	7	8	9	10	11	12	13
0—15	40.66	16.38	33.26	37.53	16.97	31.36	28.01	11.89	23.62	23.92	8.64	19.78
15—34	50.29	52.96	51.11	51.55	55.19	52.63	61.45	53.87	59.38	65.34	61.80	64.39
34 and above	9.05	30.66	15.63	10.92	27.84	16.01	10.54	34.24	17.00	10.74	29.56	15.83
All Classes	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

NOTE :

1. The data for 14th to 16th rounds are based on State and Central samples.
2. The data for the 17th round are based on the State sample only.

Source :

Director, Bureau of Economics and Statistics, Gujarat State

362. It can be seen from the above table that the pattern of distribution of households by *per capita* expenditure classes indicates a significant change over time. In 1958-59, about one-third of the households belonged to *per capita* expenditure class of Rs. 0–15, whereas in 1961-62, this class accounts for about one-fifth of the total households in the State. The decreasing trend is gradual and noticed over the entire period after 1958-59. This decrease in the percentage of households in the lowest class resulted in a corresponding increase of the same order in the *per capita* expenditure class of Rs. 15-34 during the given period. Just over one-half (51 per cent) of the total households were included in this middle class during 1958-59. The corresponding proportion of households was nearly two-third (64 per cent) during 1961-62. The percentage of households in the *per capita* expenditure class of Rs. 34 and above does not show any trend over the specified years, though it reflects a slight gradual increase during the period from 14th to 16th round. The above analysis definitely indicates the increasing level of expenditure over years, especially in case of the lower class households. It is, however, not possible to state as to what extent this increase in level of consumer expenditure is on account of improved levels of living and what part of the increase can be attributed to changes in price levels.

RURAL/URBAN DISTRIBUTION

363. Considering the pattern of distribution in the rural and urban areas, one finds that the trend noticed for the State as a whole is closely followed in both the sectors of the State also. However, a very significant and important difference between the two sectors is clearly brought out by the above data. As could be expected, the lower *per capita* expenditure class accounts for a very high proportion of families in the rural sector compared to the urban sector, whereas the reverse is the position in the case of the higher *per capita* expenditure class. In the rural sector, as high as one-fourth to two-fifth of the households spends Rs. 15 or less per person per month; in the urban sector, the corresponding proportion is one-eleventh to one-sixth. At the upper level just about one-tenth of the households spends Rs. 34 or more per person per month in the rural sector against as high as three-tenth of the households in the urban sector. The middle *per capita* expenditure class of Rs. 15-34 accounts for the highest proportion of families (between 50 and 65 per cent) in either of the sectors. Even in this class, on the basis of the detailed classification in Statement XII. 108 the percentage of families having relatively lower *per capita* expenditure is greater in the rural sector than in the urban.

Per capita EXPENDITURE BY ITEM

364. In Statement XII.109 are given the data on monthly *per capita* consumer expenditure on various items of consumption. It is observed that the average expenditure per person was of the order of Rs. 21 to Rs. 22 during all the four years. The reason for this small increase as seen earlier, is mainly on account of increase in the level of expenditure of the families in the lower *per capita* expenditure classes. This increase in *per capita* expenditure does not necessarily indicate an increase in the level of living but has to be judged in relation to the increase in price level over time.

365. There is a wide difference in the per person expenditure between the two sectors. The expenditure per person in the urban areas is about 35 to 45 per cent more than the per person expenditure in rural areas. It is further noticed that the difference in *per capita* expenditure is largely accounted for by non-food items, the average expenditure on food items showing a much smaller degree of difference. In respect of expenditure on cereals only, the average expenditure per person in rural areas is slightly more than in the urban areas in all the specified years. This is likely to be so because of the higher *per capita* consumption of foodgrains in the rural areas than in the urban areas.

366. Statement XII. 110 presents the percentage distribution of consumer expenditure classified by items of consumption. The proportions of consumer expenditure spent on various items to total expenditure are observed to have remained more or less unchanged over time for the State. The expenditure on total food items constituted about 72 to 73 per cent of the total

expenditure for the State as a whole. Thus nearly three-fourth of the expenditure is spent on food items, whereas the non-food items account for only one-fourth. The share of cereals in the total expenditure is nearly one-third, that of milk and milk products nearly one-seventh, and that of other food items slightly over one-fourth. The proportion of expenditure on clothing is about 4 to 5 per cent of the total expenditure. One-sixth of the total expenditure is spent on other non-food items like rent, taxes, education, medicine, purchase of durable and semi-durable goods, etc. Comparison of the patterns of expenditure over different years does not show any discernible change in respect of any item. Slight decline in the case of other food items can, however, be attributed reasonably to sampling fluctuations rather than to any change in the pattern of consumption.

367. Examining the data of the rural and urban sectors separately, it is noticed that against more than three-fourth of the total expenditure being accounted for by food items in the rural areas, less than two-third is spent on food items in the urban areas. This difference is, in turn, mostly accounted for by cereals. In the case of milk and milk products and other food items, though the expenditure per person in absolute amount is greater in the case of the urban population, there is only a very small variation in the proportions of expenditure on this item between the two sectors. The difference in the proportions of expenditure on non-food item between the two sectors is accounted for by other non-food items. It is of interest to note that the average per person expenditure on other non-food items of the urban population is nearly three times that of the rural population. Even in terms of relative level of expenditure on the items in total expenditure, the proportion in the case of the urban population is approximately twice that in the case of the component items included in this group. It is not unexpected that the expenditure on it should be absolutely as well as relatively high in the urban areas.

STATEMENT XII.109

Monthly *per capita* consumer expenditure

Items of consumption	14th round (1958–59)			15th round (1959–60)			16th round (1960–61)			17th round(1961–62)		
	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State
1	2	3	4	5	6	7	8	9	10	11	12	13
Cereals	7.03	6.16	6.80	7.47	6.30	7.14	6.89	6.26	6.73	6.97	5.63	6.62
Milk and milk products	2.50	3.59	2.79	2.58	3.30	2.78	2.93	3.57	3.09	3.30	3.50	3.35
Other food items	4.70	7.81	5.54	4.84	7.78	5·67	5.57	8.47	6.30	5.71	7.88	6.28
All food items	*14.23*	*17.56*	*15.13*	*14.89*	*17.38*	*15.59*	*15.39*	*18.30*	*16.12*	*15.98*	*17.01*	*16.25*
Clothing	0.93	0.98	0.94	1.05	1.15	1.08	1.36	1.06	1.28	0.88	0.82	0.87
Fuel and Light	1.24	2.00	1.45	1.29	2.00	1.49	1.36	1.96	1.51	1.24	1.85	1.39
Other non-food items	2.09	6.28	3.23	2.43	6.19	3.48	2.40	6.96	3.55	2.55	7.76	3.90
All non-food items	*4.26*	*9.26*	*5.62*	*4.77*	*9.34*	*6.05*	*5.12*	*9.98*	*6.34*	*4.67*	*10.43*	*6.16*
Total consumer expenditure	**18.49**	**26.82**	**20.75**	**19.66**	**26.72**	**21.64**	**20.51**	**28.28**	**22.46**	**20.65**	**27.44**	**22.41**
No. of sample households	618	247	865	633	248	881	283	322	605	182	252	434

NOTE :

1. The data for 14th to 16th rounds are based on State and Central samples.
2. The data for the 17th round are based on the State sample only.

Source :

Director, Bureau of Economics and Statistics, Gujarat State

STATEMENT XII.110

Percentage distribution of consumer expenditure by items of consumption

Items of consumption	14th round (1958–59)			15th round (1959–60)			16th round (1960–61)			17th round (1961–62)		
	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State	Rural	Urban	State
1	2	3	4	5	6	7	8	9	10	11	12	13
Cereals . . .	38.05	22.97	32.75	38.01	23.59	33.00	33.58	22.13	29.96	33.74	20.52	29.54
Milk and milk products	13.49	13.37	13.45	13.12	12.36	12.86	14.29	12.60	13.75	15.97	12.76	14.95
Other food items .	25.40	29.14	26.72	24.63	29.11	26.18	27.17	29.96	28.05	27.67	28.72	28.00
All food items . .	*76.94*	*65.48*	*72.92*	*75.76*	*65.06*	*72.04*	*75.04*	*64.69*	*71.76*	*77.38*	*62.00*	*72.49*
Clothing . . .	5.04	3.65	4.55	5.36	4.31	5.00	6.61	3.77	5.71	4.27	3.00	3.87
Fuel and light . .	6.71	7.46	6.97	6.54	7.48	6.86	6.64	6.92	6.73	5.99	6.74	6.23
Other non-food items	11.31	23.41	15.56	12.34	23.15	16.10	11.71	24.62	15.80	12.36	28.26	17.41
All non-food items .	*23.06*	*34.52*	*27.08*	*24.24*	*34.94*	*27.96*	*24.96*	*35.31*	*28.24*	*22.62*	*38.00*	*27.51*
All items . . .	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
No. of sample households	618	247	865	633	248	881	283	322	605	182	252	434

NOTE :

1. The data for 14th to 16th rounds are based on the State and Central samples.
2. The data for the 17th round are based on the State sample only.

Source :

Director, Bureau of Economics and Statistics, Gujarat State

PART D—CONCLUDING REMARKS

368. Changes in population and economic position in Gujarat State during the past decennium have been surveyed in the various Chapters of the General Census Report. Important trends and projections have also been indicated in the preceding paragraphs of this Chapter. We shall now attempt a general review under three broad heads, namely (i) demographic, (ii) social and cultural and (iii) economic, in order to give a comprehensive picture of the progress registered between 1951–61 and also indicate the future direction of growth.

(i) Demographic Aspect

369. The total population of Gujarat is 20,633,350 persons—10,633,902 males and 9,999,448 females—an increase of 26.88 per cent over that returned in 1951. The rural and urban components respectively account for 74.23 and 25.77 per cent. The growth of numbers during the intercensal period has been quite rapid and has taken place at a rate higher than in many other States of the country, exceeded only by Assam and West Bengal. This growth which started since 1931 and continued uninterrupted till 1961 is particularly noteworthy between 1951 and 1961, as it has been brought about by a higher rate of survival resulting from the lowering of the death-rate and stabilisation of the birth-rate, though indications are not wanting which point towards a slightly higher birth-rate. Various public health measures which the State Government has taken after Independence have removed causes responsible for high infant and child mortality and general death-rate, which have appreciably come down and raised the average expectation of life at birth from 32 in 1951 to 40 in 1961. Currents of migration have also been at work but the ultimate balance has been in favour of emigrants rather than immigrants, which bring the total natural population of the State to 20,667,540 persons, an increase of 0.17 per cent over the censused population. The migratory currents within the State have, however, been very active in bringing about redistribution of population between villages and towns. The increasing pressure of population on land from high land-man ratio, underemployment and rapid growth of numbers have exerted considerable influence on the movement of the working population from the countryside to urban areas, which afford increasing opportunities for employment in various jobs created by expansion of industry, trade and commerce. The growth of numbers in some of the districts has been exceptionally high, particularly in the tribal areas which have been opened up by improved means of transport and communications putting an end to their former isolation. While the improvement in the health of the people and the control of death–rate would indeed be welcome as raising the general vitality of the people, the growth of numbers resulting in population explosion has upset all calculations about the benefits to be reaped from increasing economic activity in the various sectors of industries and consequent growth in State income. The *per capita* income which would have substantially risen during the decade but for the rapid rise in population has not advanced to the desired extent, accentuating a number of problems like food shortage, unemployment, underemployment, and provision of facilities at all levels of education to different sections of society. The prospects for limiting the growth of numbers in the near future are not happy. For, the rate of survival is bound to increase during the next decade with greater provision of medical and public health facilities, which is likely to raise rather than retard the rate of birth owing to the improved vitality of mothers. The population projections made by experts envisage that despite family planning measures, it is not possible to expect any appreciable reduction in the rate of growth between 1961 and 1971, when increase at a rate little higher than in the past, that is at 32.36 per cent,

will raise the population to 27,310,867.* This will impose additional burden on the State resources which are likely to be frittered away in meeting the demands of growth of numbers rather than in significantly improving the level of living of the people. The only way out of such a crisis, which sets a brake on the developmental efforts of the State and the people is to give topmost priority to measures which will keep the birth-rate appreciably under control. Check on the fecundity of the people at the present juncture is far more important and essential than any programme of development which can afford to wait if the objective of planning is not to be frustrated. Some of the problems like food shortage and unemployment would automatically disappear, if the rate of birth is brought down to a limit which will not come in the way of economic development of the State.

(ii) SOCIAL AND CULTURAL ASPECT

(a) *Age Sex Ratio*

370. The sex ratio for the State of Gujarat is 940 as against 941 for the country as a whole. While the increasing birth-rate has been responsible for a substantial rise of population in the children's age-group, the results of reduction in mortality are also evident in the proportion of persons of older ages 60 and over. The age-sex structure of the population reveals greater initial advantage in favour of females, which soon disappears owing to the unequal treatment of boys and girls and the hazards of life and other vicissitudes to which females are exposed under the existing social system. This inequality of the sexes is reflected in all fields of human activity and progress. It is reflected uniformly in the age at marriage, state of widowhood, greater female illiteracy and the lesser opportunities the weaker sex has in the various fields of economic activity. Measured in terms of opportunities, women are at a disadvantage in all the spheres of life, be it social, cultural or economic. This disparity which is so deep-rooted in the existing social structure has deprived the society of the contribution which a substantial proportion of our human resources can make to its well-being and progress. But the former conditions are fast changing and the social, economic as well as political inequalities from which women suffered in the past are gradually disappearing. Women are taking up their proper place in the overall structure of the State economy by entering fields, access to which was hitherto either denied or not possible owing to the stress of circumstances. Women are playing an important role in the development of the country by actively participating in the various fields of human activities. The apparent inequality in the economic field is not real as the role women play as housewife in running the household and bringing up the children, a responsibility from which males are completely absolved, shows a scientific division of labour between two equal partners of the household. In fact both are complementary. The role each plays in the family structure is a specialised role, which the other sex cannot perform. Further, wherever economic activities can be pursued with advantage in the household or in the field, women have never shirked the responsibility but stood shoulder to shoulder with men even in the economic sphere. Thus ultimately it is the question of opportunities in the appropriate sphere of work which determines the contribution which each sex makes to the well-being and welfare not only of the household but also of society.

(b) *Literacy*

371. The disparity in the field of literacy and education between the two sexes is striking and arises from the popular belief that education is a means to an end and not an end in itself. It is regarded as means to make a comfortable living and not something which a human being should acquire for the sake of education to make him a fuller man, a better and cultured member of society. This belief would naturally influence the attitude of the people in educating their womenfolk whose legitimate sphere of activity has been considered to be home making. Such a notion about the acquisition of education also limited its spread to only those sections of society which require some standard of literacy and education for gainful employment. Agriculture and other occupations which were for the most part manually operated were considered not to stand in need

* Similar estimates made by the Expert Committee on Population Projections set up by the Planning Commission come to 27,093,400.

of it. It was the professions and liberal arts as well as trade and commerce which alone required its workers to have some standard of education and literacy. Such a belief was further accentuated and perpetuated by the caste system, which ordained that learning was the sole prerogative of the Brahmin caste, whose duty it was to acquire the knowledge of the *shastras* and impart it to others. Such educational institutions as existed in the past prior to the advent of the British rule, were, therefore, for the most part confined to educating the Brahminical as well as other advanced classes whose profession and calling required some grounding of three R's, viz., reading, writing and arithmatic. The professional and economic aspect of education thus limited its scope and opportunities to only a few advantageous sections of society. This fact is clearly established by the comparative dearth of education and high rate of illiteracy among cultivating classes, persons working in the exploitation of primary resources and other occupations where physical labour is in demand and wherein castes which form the lowest rung of the social hierarchy are employed. Things are different these days and education, though still considered to be a means to an end, is also prized for its own sake. But its professional aspect cannot be totally ignored in a developing economy, which requires skilled labour and qualified technical personnel for the development of all the latent material resources, in an ever increasing number. Thus the economic aspect of education is stressed no less these days than in the past. But the gradual disappearance of the functional distribution of castes is bringing into existence a casteless society based on functions and occupations wherein social barriers which prevailed in the past do not exist.

372. Though Gujarat has made substantial progress in the extension of literacy after Independence and expects to extend the benefits of primary education to nearly 80 per cent of the school-going population by the end of the Third Five Year Plan, much still remains to be done in expanding literacy and education in different parts of the State. The rate at which literacy has grown during the last decade shows that in the total population of the State aged five years and over, 30.5 per cent have been returned literate as against 23.1 per cent a decade ago. In the general population, there are 305 literates per every 1,000 as against 240 for the country as a whole. Male literacy is found to be 41.1 per cent as against 19.1 for females. The disparity and deficiency in the sphere of literacy are striking and require concentrated efforts on the part of the State and the people to bridge the existing gulf.

373. The progress of primary and secondary education as already seen has been satisfactory. University education is also expanding *pari pasu*. But looking to the rapid growth of numbers and corresponding increase in the demand for education at different levels, primary, secondary as well as higher, the facilities available are inadequate and are meagre in the field of technical education, as seen from the number seeking admission and those actually admitted. Quite a large number of students fail to get admission and have to give up studies because of the limited scope of admission and the small number of institutions catering to the needs of higher and technical education. The numbers would not be few also of those who do not have the means of prosecuting their studies further either because of financial stress or want of institutions which they can conveniently attend without incurring heavy expenditure. This inequality of opportunities operates to a greater extent in case of rural areas. For, it is only those who can afford to send their children out of their home can provide higher education to their children. Greater funds and greater energies will have, therefore, to be expended in the near future to overcome the past defect and provide for future expansion commensurate with the growth of numbers on the basis of equal opportunities for all.

(c) *Marital Status*

374. The social aspect of demography as represented by the marital status of the people shows very encouraging trends in raising marriageable age, both for boys and girls. People have realised the need for avoiding child marriages and the attendant evils of early child birth, repeated deliveries at delicate ages and consequent deterioration in the health of the mother and the newly born. As already seen, the age at marriage has substantially risen in case of both the sexes, which is a little higher for boys than

for girls. While this is due to the initial inequality in the past, it also represents the biological difference between the two, which brings earlier maturity and growth in case of girls than in case of boys. There is, however, still greater need for raising the marriageable age both for boys and girls, so that apart from the physical handicaps to which early marriages make them subject, their development in other spheres of life, social as well as economic, is not retarded. The trends which are at work hold out promise for raising the age at marriage at the required level for both the sexes in view of the growing consciousness on the part of the people to avoid early marriages. In the result, the end of the current decade will show still greater rise in marriageable age in consonance with the changing circumstances of the people and their economic condition. The resultant contraction in the span of married life cannot but influence the existing high rate of fecundity and help reduce to that extent the growth of numbers which require to be checked betimes. Another direction in which the rise in age at marriage has shown welcome results is the reduction in the proportion of child widows, which was the inevitable concomitant of early marriages and early child-bearing. But it is significant to note that while child widows have become insignificant, enforced widowhood which prevailed in the past, shows no sign of abatement in the near future as even in cases where divorce is coveted and secured, it is males who remarry but not women who for the most part remain single.

(iii) ECONOMIC ASPECT

375. Agriculture is the premier industry of the State and engages 68.10 per cent of the total working force. Primary activities including cultivation of land, agricultural labour and animal husbandry together account for 71.42 per cent of the State labour force and contribute 45.52 per cent of the State income as against manufacturing industries whose share in the labour force is 6.33 per cent and that in the income 19.10 per cent, the total contribution in the labour force and income by secondary sector being 13.95 and 22.35 per cent respectively. The tertiary activities contribute 16.72 per cent of the total working force and contribute 31.15 per cent of the State income.

(a) *Agriculture*

376. The outstanding feature of the village economy is its mixed character, which combines agriculture with animal husbandry. During the past decade, though there has not been any substantial increase in the area under cultivation there has been noteworthy increase in agricultural produce owing to rise in yield per acre of food crops and non-food crops. That the yield per acre has still not been able to come up to the all-India level will be seen from the following table.

STATEMENT XII.111

Yield per acre of important crops for State and India*

(Figures in lbs.)

Crop	Gujarat	India
1	2	3
Rice . .	582	776
Wheat . .	582	661
Jowar . .	202	400
Bajra . .	224	275
All cereals . .	336	580
All pulses . .	291	432
Groundnut . .	493	665
Cotton . .	102	86
Tobacco . .	627	692

*Quinquennial average 1952–53 to 1956–57.

Source :

Gujarat Economic Aspects, p. 11

The Food Problem

377. Causes for comparatively lower productivity of land require to be investigated particularly when the farmer in Gujarat is no less hard working and receptive to improved farming practices than his brethren in other parts of the country. Such an investigation is all the more necessary when the per acre yield in the State is much less compared to all-India averages for all the crops, food and non-food except cotton and particularly when other countries have been enabled to step up their production many times more than their former output. Though irregular and untimely rainfall may be one of the reasons for low productivity, these

factors do not operate in the case of Gujarat alone. The country as a whole shares in these idiosyncrasies of nature, which periodically occur in all the States. Concentrated efforts will have, therefore, to be made to raise the output of various crops by intensive farming, increasing mechanisation, greater use of manure and fertilizers, improved seeds and greater utilisation of available water resources. There is some possibility also of increasing the area under cultivation by reclamation and soil conservation measures, which have already been undertaken by the State. These measures require to be speeded up after the initial experiments have proved successful. The State is deficit in foodgrains. Efforts at making up the deficit have not met with success for two reasons, namely, (i) increase in population decade after decade, and (ii) shift in cultivation from food crops to non-food crops like cotton, groundnut and tobacco. While it is possible for the State to overcome the existing deficit by raising the output by bringing greater area under cultivation and adopting improved methods of farming and intensive cultivation, the question remains whether that alone will be sufficient by itself and will not need any turn of the pendulum in favour of food crops by reducing the area under non-food crops. In this context what is to be considered is the broad national aspect and not the narrow aspect which individual States might be prone to adopt. The country should be taken as a whole, and if Gujarat can make greater contribution to the national income by its shift towards technical crops which are so very necessary for the purposes of industrialisation and exports, it should not harbour the narrow outlook of self-sufficiency in food. It then becomes the responsibility of other areas which are surplus in foodgrains to make up the deficit in those parts of the country where non-food crops make notable contribution to the country's wealth and industrial progress. If this is not done and every constituent State, rather than the country as a whole, aims at self-sufficiency in the matter of food, the overall economy will suffer by not having the maximum advantage that is possible under a system of specialisation in the cultivation of crops most suited to the soil.

378. Food problem when viewed in the context of rapid growth in population assumes very acute proportions and becomes graver year after year in spite of the efforts that the Government and people are making to reduce the deficit and ensure self-sufficiency. The problem is known in all its perspectives and the measures that should be adopted to achieve the goal are also known, but the efforts which alone count are lacking. The result is that every 2 to 3 years the problem becomes more acute than ever before, baffling the ingenuity of the planners to find a proper and correct remedy for this chronic malady. The Indian cultivator is prudent, knows where his interests lie and is quick to adopt improved techniques, if he is convinced of their success. He does not like to be preached as mere oral professions do not have any effect on him. He must be assured by practical results that the departure from the orthodox method of farming and resort to improved practices will be to his advantage. He need not be talked to but he should be convinced. Practical demonstration is the only persuasion needed. This aspect, though not totally absent, has not received the attention it deserves.

379. Though food shortage is there in the country as a whole and also in many an individual State, it is not of such an order that it cannot be overcome by certain measures, which should be effective enough to meet the evil. While top priority should be given to reduction in the growth of numbers and simultaneous acceleration in the matter of yield, there are other measures as well which, if properly carried out, would work miracles. Wastage of food by deterioration claims appreciable portion of the total produce. This wastage occurs alround. It occurs on the field, in the household and at the hands of every individual. Damage to standing and harvested crops should be reduced to the minimum. Deterioration of foodgrains which takes place in the household or in the granaries must be totally eliminated. Individual wastage is no less and can be reduced by proper methods of cooking and eating. Granting that people are not few who do not get a square meal a day, a very large section of the population eats

25 per cent more than what an individual really needs for his sustenance. He eats not for the sake of nourishment but for the sake of the pleasure of eating, which adversely affects his health and vitality. With proper education and instruction, this wastage can also be avoided, and the entire deficit from which the country at present suffers may be possibly wiped out.

(b) *Animal husbandry*

380. The diversification of agriculture is provided by the complementary occupation of animal husbandry in Gujarat. Dairy industry has made notable progress in the State as this part of the country possesses some good breeds of cattle, cows and buffaloes noted for high yield of milk. Kankrej and Gir are the two outstanding breeds of cows, whereas Surti, Mehsani and Jafrabadi are the important breeds of buffaloes. Sheep and goats also account for a substantial number. But the industry of cattle-breeding is still not placed on a scientific footing as like agriculture cattle-breeding is also a way of life rather than an occupation pursued with motive of profit and worked on a commercial basis. The section of the community which is engaged in this pursuit is totally illiterate, economically very backward and open to exploitation by middlemen for its daily needs, fodder and cattle feed, which are exchanged for milk and milk products. Certain attempts at the settlement and rehabilitation of cattle-breeders have been made but they have not so far succeeded in bringing any substantial relief. A large section among them is still nomadic moving from one place to another before and after the monsoon. Livestock raising can be made to contribute a still larger part of the State income by rehabilitating this industry on a scientific and systematic basis by settling the cattle-breeders at convenient places, providing them with financial aid and safeguarding them against outside exploitation. Sufficient grass reserves should be made available to them and monetary assistance given for the purchase of fodder and cattle feed. Improvement of the breed should also be carried out by introducing breeds of superior quality and intensifying other measures which are in progress. Improvement of grasslands is no less important than improvement of agriculture and also requires to be practised on a large-scale, both in the areas reserved by Government as well as by the panchayats.

(c) *Minerals*

381. It has now been established by the various surveys carried out in recent times that Gujarat is rich in a number of non-metallic minerals, which promise considerable development in cement, sodium chemicals and ceramics, besides bauxite, manganese, sandstone, asbestos and other minerals which can be further exploited with profit. The recent find of petroleum products has given rise to great possibilities for the industrial development of Gujarat not only in the availability of cheaper form of power but also for the development of petro-chemical industries round about Baroda for the establishment of which the State Government is naturally anxious.

(d) *Salt*

382. Salt deserves special mention because of the largest contribution Gujarat makes to the total production of this commodity in the country and also because of the basic material it provides for some of the heavy chemical industries, particularly in the manufacture of soda ash and caustic soda. The National Salt Research Laboratory at Bhavnagar has been making good progress by revealing the possibilities of manufacturing some of the important by-products salt is capable of yielding.

(e) *Fisheries*

383. While the development of fisheries has a great future in Gujarat because of its long coast-line and has made noteworthy progress in recent times, it still lags far behind the all-India average, which it will have to make up by developing all the potentialities that exist in the State.

(f) *Forests*

384. The State possesses 9 per cent of its geographical area under forest as against 24 per cent for the country as a whole, which is considerably less than the average prescribed under the National Forest Policy of 33 per cent. Much ground will have to be covered before the

national ideal is reached. One wonders whether after all is done, it would be possible for the State to come up to the all-India level by bridging the wide gulf that exists at present.

(g) *Manufacturing Industries*

385. 'Textiles' are the premier manufacturing industry of the State, and occupy the first place among organised industries. The first textile mill was started in Gujarat about a century ago. Some diversification in the industrial sector has, however, started in recent times by the establishment of chemical, pharmaceutical, dye-stuffs, cement and ceramic industries. Ancillary industries like light engineering, manufacture of spare parts, etc., are also making good progress, and have bright prospects, if developed on Japanese style on small-scale basis by manufacturing parts which can be later assembled by larger concerns. Gujarat has a great potentiality not only for the development of resource—based industries in the various agricultural and mineral products but also in market-oriented commodities both of which can be expanded and established in larger numbers, thanks to the entrepreneurial ability, business acumen and enterprise, for which the industrialists and the trading community of the State are noted. There are certain handicaps, however, which have to be faced and overcome. These are shortage of power, technological guidance and provision of certain essential facilities which are considered necessary for rapid industrial expansion and growth. The problem of power the State Government has been tackling on a high priority basis by expanding the power generating capacity of the existing establishments and starting the Dhuvaran Project, which bids fare to make up the existing shortage. But this would not be enough. For, development is a continuous process which will make growing demands on the existing supply which will have to be further explored and developed by tapping all available power resources, thermal, hydro as well as atomic. The existing high cost of thermal power produced from coal transported over a great distance from Bengal coal fields adversely affects the cost of production of various industries. Cheaper thermal power from lignite and coal which have good possibility of commercial exploitation as well as supply of natural gas at economic rate would overcome the existing handicap to industrial development and open up further avenues of progress in Gujarat by making way for greater diversification rather than concentration on textiles alone.

386. Rural industrialisation has been set up as a goal for the industrial development of backward areas as well as for relieving the pressure of population on land and preventing the exodus from villages to towns. The idea is very attractive indeed but requires to be successfully implemented to inspire the confidence of the people. No substantial progress has so far been made in this direction. The Planning Commission has selected 40 areas, two of which have been allotted to Gujarat, one each in the Panchmahals and Kutch. The main objective of this project is to promote an agro-industrial economy in rural areas on cooperative basis by establishing three types of industries, namely, (i) based on local raw materials, (ii) those having local markets and manufacturing implements which would give impetus to agricultural production and (iii) other light engineering industries.

387. Industrial estates which are to be opened at the rate of one per every district before the close of the Third Five Year Plan will go a long way in facilitating the establishment of small-scale industries by providing all the essential pre-requisites such as land, power, water, technical advice, facilities for servicing, etc., in the industrial campus itself.

(h) *Transport and Communications*

388. Adequate means of transport and communications are highly essential for the development and growth of agricultural and manufacturing industries. Gujarat can rely on three alternative modes of transport, namely, (i) rail (ii) road and (iii) sea. In the matter of road transport, it is very deficient and much behind the target laid down by the Nagpur Plan, as it has still a large deficit of 42.2 per cent to make up. Internal communications also require to be improved by constructing approach and feeder roads, so that the movement of agricultural and industrial produce from and to villages, towns and harbours takes place without any hindrance. Maritime

trade has great opportunities of expansion not only through the major port of Kandla but also through its numerous intermediate and minor ports catering to coastal and foreign traffic. Improvement and extension of existing facilities for handling cargo, making of Porbandar and Veraval all-weather ports and development of free trade zone around Kandla hold promise of greater expansion of maritime trade in the State. The greatest bottleneck that, however, exists today is the absence of broad-gauge line connecting the major port of Kandla with Ahmedabad as also another connecting Bhavnagar with Tarapur. Construction of these two lines is highly essential for stimulating the growth of industries, development of trade and commerce and movement of raw materials and finished products.

Social Overheads

389. Mere economic growth without the provision of essential social amenities, which promote public health and mentaly equip an individual for a higher and fuller life, is not enough to secure alround human happiness and well-being. The individual as well as the nation must develop in all its aspects—physical, mental, economic and cultural, so that human life becomes worth living. The progress should be alround, material, moral as well as intellectual, even spiritual. But it is the material progress which should get priority as a person who is always in want and has constantly to worry about his bread cannot think of anything else. Economic progress must, therefore, be given top priority in national planning. But material progress is not the be–all and end–all of human existence. Man is neither a machine nor an automaton. He should develop and progress in all directions, and imbibe and enjoy all the good things of life in this world.

390. Doubts are expressed in many quarters as to whether all this planning which is going on alround has succeeded in ensuring human happiness and putting an end to the prevalent discontent and sufferings which are visibly on the increase rather than decrease. People are not few who doubt the wisdom of securing human happiness through economic advancement alone, resulting in rivalry between classes and nations. Class jealousy, class war and increasing distance between the 'haves' and 'have-nots' are factors which cannot be ignored. It will have also to be considered whether economic discontent is the only way to achieve human progress. Whether it will succeed in giving man that peace of mind and happiness he craves for and hankers after. Or whether it is the conscious minimisation of wants which alone will bring peace and contentment, happiness and joy that will make this Earth worth living. Austerity measures advocated to promote economic progress cannot succeed, unless there is conscious limitation of wants and a person feels contented in the circumstances in which he is placed. Viewed against this background, whereas contentment is negation of all progress, increase in wants and discontent will lead us nowhere. A happy balance should, however, be struck between the two—progress without rivalry or discontent on the one hand and peace and happiness on the other, based on the close cooperation not only between individual and individual but also between the nations of the world closely knit in one single fraternity in "the parliament of men and federation of the world".

ANNEXURE

A note on the method of estimation of State income adopted for (i) Agriculture and (ii) Industries

(i) Agriculture

1. The economy of the State is preponderantly agrarian in nature. A large proportion of the economically active persons depends on Agriculture for their earnings and consequently a major part of the population about fifty-seven per cent, depends for its livelihood on this occupation. The contribution of this important sector of the economy accounts for the largest single share towards the income of the State. Any change in the income from agriculture will considerably affect the total income as well as the *per capita* income of the State.

Approach

2. Product approach is followed for estimating the income originating from this sector. Statistics of production of the various agricultural commodities and the data regarding their prices, appropriate for evaluating the money value are of vital importance. Figures relating to the area under the various crops, are also of no less importance, as they serve the link for indirect estimation in the absence of required outturn on statistics. They are put to use for estimation of various types of cost data required for netting purposes.

Area and outturn

3. The Season and Crop Reports, published by the State Department of Agriculture, give area and outturn statistics of the various crops. The data relating to both the items, area and outturn, are given according to the districts. The area statistics are available in considerable details. However, statistics of outturn are not comprehensive. They are available for principal crops only. Moreover, the estimates of production are not worked out by employing uniform methods of estimation. The estimation of outturn of major crops is based on scientific method of crop cutting experiments. But the outturn of some other crops is determined by the traditional method of 'annawary' system based on the subjective judgment of the reporting authority. The crop cutting surveys were introduced in some of the districts of the State, as early as 1949-50. By 1957–58 after their introduction, in the Rajkot division of the State, most of the major crops like rice, wheat, *jowar, bajri,* gram, cotton, groundnut, etc., are brought under the ambit of the crop cutting surveys, for estimation of outturn.

Grouping of crops

4. All crops are divided into food and non-food crops. Cereals, pulses, fruits and vegetables, sugar crops and condiments and spices consist the food crops, while the non-food crops comprise of fibres, oil-seeds, drugs and narcotics, fodder and other miscellaneous non-food crops. The individual crops, minor groups or major groups considered for income estimation are as below:

I *Cereals*—(1) rice, (2) wheat, (3) *jowar*, (4) *bajri*, (5) barley, (6) maize, (7) ragi, (8) other cereals (including kodra, small millets, ragi, etc.)

II *Pulses*—(1) gram, (2) *tur*, (3) other pulses (including *math, masur, val, mung, udid,* etc.)

III *Sugar-cane*

IV *Fruits and vegetables*

V *Condiments and spices*—(1) chillies, (2) other condiments and spices (including ginger, fennel, coriander, cumin, etc.)

VI *Oilseeds*—(1) groundnut, (2) sesamum, (3) castor seeds, (4) rape, mustard and linseed, (5) other oil-seeds (dillseed, nigerseed, cocoanut, etc.)

VII *Fibres*—(1) cotton, (2) other fibres (sannhemp, jute, deccanhemp, etc.)

VIII *Drugs and Narcotics*—(1)* tobacco, (2) other drugs and narcotics (*ajwan*, betel leaves, etc.)

IX *Fodder crops*

X *Other miscellaneous non-food crops*

*Production data of tobacco relates to tobacco leaves only

Source: *State Income Estimates*, 1955–56 to 1960–61, Bureau of Economics and Statistics, Gujarat State

Production statistics for crops of the group, fruits and vegetables, other condiments and spices, other oil-seeds, other fibres, other drugs and narcotics, fodder and miscellaneous non-food crops, are not available. Therefore, the treatment in assessing the income from these groups, differs from that of the principal crops.

Type Studies

5. In order to fill up the existing gaps in the statistics required for income estimation, of the commodities for which production data are not available at present, the Bureau conducted type studies in the year 1961-62 in various districts of the State, with the help of the District Statistical Officer in consultation with the District Agriculture Officer. From the results of these studies, estimates of value per acre were built up for the groups, fruits and vegetables, other condiments and spices, and other fibres (Appendix 3)*. These estimates for the State level were uniformly applied for all the districts of the State. For the remaining groups, viz., other oil-seeds, fodder and miscellaneous non-food crops, reliable estimate of value per acre could not be made due to inadequate information. For other oil-seeds 85 per cent of the weighted average value of yield per acre of sesamum and linseeds has been used for estimation of value. For fodder and miscellaneous non-food crops estimates of value per acre as considered by the C.S.O. for these groups are utilised. For years other than 1961-62 the estimates of value per acre for each group is adjusted with the 'Economic Advisers' index number of wholesale prices relevant for the group. For fruits and vegetables the index of bananas is preferred to that of fruits and vegetables as bananas account for a large portion among this group.

Evaluation

6. The concept considered is income originating and not income accruing. Hence the price appropriate for evaluating the money value of the agricultural produce should be the price actually realised by the agriculturist, by carrying out activities related to agriculture only. However, it is an admitted fact that the farmers do not confine themselves to the activities related to production of crops only. They are sometimes responsible for processing, transport, trading and distributive services in disposing of their produce. In underdeveloped countries it is difficult to segregate such diversified economic activities from each other. Such type of transport and distributive services carried out by producers, are also included in this sector. Conceptually, however, among the various types of prices available at present, the farm harvest prices are the nearest fulfilling the requirements for evaluation. Farm harvest price is defined as the average wholesale price at which the farmer disposes his produce at the village site, during the specified harvest period.

7. However, the farm harvest price suffers from several limitations. The time lag in the availability of data on farm harvest prices is more, in certain cases it is as long as three years. The farm harvest prices relate only to a limited number of major crops. Moreover they relate to the period of actual harvesting during which only a small proportion of the crop is actually disposed of by the farmers. In the alternative, other set of appropriate prices are the prices of the primary market during the peak marketing period. The period during which 50 to 60 per cent of the market arrivals in the marketing yards is disposed of by the producers being termed as peak marketing period.

Market Yards Prices

8. For the year 1960-61 the primary market prices, namely, the regulated market prices are available on a fairly wide scale and they are utilised for evaluation of the agriculture produce. The advantages of utilising these prices in Gujarat State, where there are a large number of market yards, are discussed below.

9. At present, there are more than eighty regulated market yards, spread over the various districts of the State. Besides the other commodities the prominent crops of the districts are mostly regulated in the market yard of the district. The market agency generally keeps trained personnel for maintaining up-to-date record of the arrival and prices.

10. The market yard prices are available for the whole year, unlike the limited time over which

C. S. O.=Central Statistical Organisation

*Not reproduced.

farm harvest prices are collected. Moreover, market arrivals are also recorded, which can be utilised for deciding the harvest arrival periods. The average price during the peak marketing period can be employed for evaluation. In the case of commodities having different varieties and qualities, whose prices are spread over a wide range, average price can be arrived at by taking suitable weighted average. Over and above these advantages, the collection of prices by a specialised agency is itself a great advantage.

11. To arrive at the price required for evaluation, i.e., price realised by the farmer at the village site, deductions on account of market fees, weighment charges, and hired transport cost will have to be made. Except the transport cost, other charges are fixed for each market.

12. The cost estimates for such charges excluding the transport cost worked out to one per cent to the total value of the sale. The estimate is built up from the information available in the annual reports of the various marketing yards.

13. The peak marketing periods have to be decided from the statistics of arrivals of various commodities for sale in the market yards. As the marketing arrival periods are not fixed on a factual basis, the periods shown in Appendix 4,* are adopted as peak marketing period, in consultation with the District Agricultural Officers. Simple average price of the prominent variety of a commodity, in different market yards of a district during the peak marketing period, is considered to be representative price for that district. If the price of a commodity is not available, the price prevalent in the neighbouring district is used. An allowance of two per cent is made to cover the hired transport and other incidental charges. Percentage fixed to cover the charges is arrived at from the results of a type study carried out by the Bureau (Appendix 5).*

Prices (1955-56 to 1959-60).

14. For the years 1955-56 to 1959-60 peak marketing period prices are used for estimating the money value of output. These prices are not available for all commodities and hence in such cases, average secondary wholesale prices during the peak marketing periods, after arbitrarily making an allowance of seven per cent (for commission, transport and other incidental charges) are used. Instead of rice and *tur* prices, paddy and *turdal* prices are available and, therefore, the prices of paddy are inflated by 50 per cent, and those of *dal* are deflated by 25 per cent, to get the rice and *tur* prices. The percentage ratios used for conversion, are available in the marketing reports. For other cereals, 65 per cent of the *bajri* prices are used while for other pulses, 103 per cent of the *tur* prices are considered. The relation is decided on some price observations for the minor crops included in 'other cereals' and 'other pulses' group. Weighted average prices of the minor groups are related with the prices of the principal crops. For finding the weighted average of the minor groups weights proportional to the share of the minor crops towards the total production of the minor group, are considered.

Prices (1960–61)

15. District-wise income estimates for 1959-60 and 1960-61 are not built up. But directly State level income estimates are made. Weighted average of the prices prevailing in each district is applied to work out the estimates for the State level, weights being proportional to the average outturn of the commodity for the years 1956-57, 1957-58 and 1958-59.

By-products

16. It is necessary to include the money value of various by-products. Theoretically, all economically useful by-products should be considered in the output, but practically it is difficult to ensure complete coverage, due to their large number and scanty data available for estimation of outturn as well as evaluation. Hence only important by-products are considered.

(i) Stalks, Straw and Sugar-cane tufts

17. The straw or stalk of the crops like paddy, wheat, *jowar*, *bajri*, gram, groundnut, etc., are important by-products for the cultivator as they are utilised for feeding the livestock. Similarly sugarcane tufts are also utilised as feed for livestock.

*Not reproduced.

For finding the value of straw and stalk, the data available in the National Sample Survey Report No. 62, Parts I and II. (Some aspects of costs of cultivation—6th and 7th rounds) are useful. The report gives zone-wise estimates regarding value of production of straw or stalk per acre harvested, ratio of straw to crop and production of straw per acre. Results pertaining to western zone are adopted for the purpose of estimation of value and production or straw and stalks. Wherever information regarding western zone is not available, estimates of all-India level are made use of. 25 per cent of the straw is considered to be wasted, as assumed by the N.I.C. Sugar-cane tufts are estimated at the flat rate of Rs. 12.50 per acre as done by the C.S.O. The value of tobacco stalks and stems is roughly estimated by placing their value at Rs. 210 per ton of tobacco. The information for estimation is obtained from the Directorate of Agriculture.

(ii) *Rice Husk and Bran*

18. Report on Marketing of Rice in India furnishes the official conversion ratio of paddy to rice for the Bombay State as 100:70. It also gives the yield of rice husk and bran in terms of percentage of paddy production. These percentages are also available for Bombay State and are 24 and 8 for husk and bran respectively. This data is sufficient for estimating the yield of husk and bran. As considered by the C.S.O. allowance for wastage has been made at the rate of five and twenty-five per cent for bran and husk respectively. Money value of the remaining portion of husk is arrived at, by applying the price of 50 nP. per B.md. The prices of bran, prevalent in the Bombay market are collected from the weekly Bulletin of Agricultural prices are used for evaluation of bran.

(iii) *Cotton, Sesamum and Tur sticks*

19. These are used as fuel. The C.S.O. has collected information regarding outturn of these sticks from the various State Agriculture Departments. The yield and price rates as adopted by the C.S.O. are followed for estimation since such statistics pertaining to the State are not available. The yield rate per acre and price per B.md. are given below.

Yield rate per acre and price per B. Md.

	Yield rate mds.	*Price* paise
1 Cotton sticks . .	10	50
2 Sasamum sticks .	5	75
3 *Tur* sticks . .	25	75

(iv) *Grass*

20. The estimates of outturn of grass in India, is placed at 19,176 thousand tons, by Burns in his 'Technological Possibilities of Agriculture Department'. The C.S.O. has allocated the production of grass, to each State from this national level estimate. Share for each State is determined in proportion to the total weighted combined area under:

(a) permanent pastures and grass lands,
(b) miscellaneous tree crops and groves,
(c) culturable waste,
(d) fallow lands,
(e) net area.

The weights used for combination are 4, 1, 2, 2 and 1 respectively for each category. Accordingly share of Gujarat State is obtained as the C.S.O.s. figures relates to Bombay State. The same figure is repeated for all years.

(v) *Farm yard wood*

21. Farm yard wood collected from agricultural farm yards and unrecorded in the official estimates of forest products is included here. As no information regarding Gujarat State which can be useful for estimation is available at present, the allocated figures as in grass above is repeated for different years. The national level estimate for this item is allocated by C.S.O. on *prorata* basis, on the total area under miscellaneous tree crops and groves and fruits other than bananas and grapes.

Net Income from Agriculture

22. It is necessary to deduct the costs of various inputs from the gross output of the agriculture sector, to find the net income of this sector. Such inputs considered for deduction are as below.

(i) *Seed Cost*

23. Quantity of seed, required per acre of cropped area, for ten different crops, viz., paddy, wheat, *jowar*, *bajri*, barley, maize, gram, groundnut

and cotton are available in the published N.S.S. Report No. 32, Parts I and II. In the case of those commodities for which seed rates per acre are available for the western zone, they are preferred. For the other commodities all-India seed rates are applied. For the remaining crops quantitative seed rates, or value of seeds required per acre as adopted by C.S.O. are applied.

(ii) *Manures and Chemical Fertilisers*

24. The dung production and the portion used as manure is estimated in the animal husbandry sector. The value of chemical fertilisers is estimated from the information available in the progress reports of the Community Development Blocks. Average per block is utilised for the purpose of estimation. Information regarding the controlled fertiliser in the State is obtained from the Department of Agriculture.

(iii) *Water Charges*

25. Charges paid by the farmer to the State Government in connection with the purchase of water for irrigation purposes are worked out from the Civil Budget of the State Government. Separate information for such charges is not available for the years prior to 1960-61 for Gujarat State. Hence these charges for 1961-62 are repeated.

(iv) *Repairs and Maintenance of Implements and other Operation Costs*

26. Farmers have to buy bags, baskets, ropes, wires, etc., in connection with the production of crop. Moreover, carts, ploughs and other implements need repairs. Other expenses made are on reclamation of land, bunding of land, digging and repairs of wells, etc. All such types of expenses are included under this item. Estimation of such cost per acre is made from the relevant data for Ahmedabad, Junagadh and Broach districts available in the rural credit surveys carried out by the Reserve Bank of India. For other years the cost per acre is adjusted with the index of earnings of rural skilled workers, constructed by C.S.O. specially for this purpose.

(v) *Depreciation of Implements and other Fixed Assets*

27. Report on Studies in Economics of Farm Management in Bombay, 1954-55 furnishes valuable information regarding the distribution of investment on farm implements, rural carts, machinery, farm buildings, etc. Investment on each item per acre is worked out. Depreciation is calculated on the average life of implements, machinery, etc. For other years the depreciation charges for 1954-55 are adjusted with the index number of earnings of rural skilled workers.

(vi) *Rice Milling Charges*

28. Rice milling charges are worked out from the report of the Rice Milling Committee of the Ministry of Food and Agriculture. The total cost is calculated for 61.5 per cent of the paddy production, as the other 38.5 per cent of paddy production is assumed to be partly hand pounded or kept for seeds and other purposes. Rice milling charges per B.md. at 25 nP., are kept the same for all the years as no relevant indicator for adjustment is available.

(vii) *Feed Cost of Livestock required on Farm*

29. The total feed cost for all types of livestock is estimated by the method adopted by the Central Statistical Organisation in their Blue book.

30. For the allocation of the feed cost between agriculture and animal husbandry sector, cattle equivalence scale as suggested by Prof. Gadgil in 'Economic Effect of Irrigation' and adopted by C.S.O. is used. The livestock population is divided into four categories useful for (i) agriculture, (ii) animal husbandry, (iii) small enterprises and (iv) transport. By using the cattle equivalence scale the percentage cattle equivalent animal for all the sectors is determined, and the feed cost is allocated accordingly.

Income at Constant Prices

31. The outputs in a given year have been evaluated at the 1960-61 prices. Net income has been arrived at after making allowance for cost of production at the same rates as in the base year.

(ii) INDUSTRIES

32. Income from all registered factories is accounted for under this sector. To avoid duplication income from dairies, government and local fund factories and factories coming under water and sanitary services, recreation services and personal services have not been included here as

their share is considered elsewhere in the appropriate sectors.

33. Value-added approach is followed to estimate the income from this sector. Data regarding ex-factory value of gross output and services sold to others, materials and fuel consumed and services purchased from other concerns, depreciation, etc., are necessary for the estimation of income.

34. The factory establishment sector is one of the organised sectors of the economy for which information regarding capital structure, employment, various items of input and output, value added, etc., are collected systematically every year by the Government of India. Such data are collected statutorily at present under the Annual Survey of Industries since 1959 (A.S.I.), while before 1957 they were collected under the Census of Manufacturing Industries (C.M.I.). For 1957 and 1958, data were collected by some States on a voluntary basis on the pattern of the Census of Manufacturing Industries. The first C.M.I. was conducted in 1946. There are the two main sources of information for income estimation from factory establishments. The Sample Survey Manufacturing Industries is not mentioned as it gives estimates at national level only, and these are not of any use for preparing State level estimates. The results have also not been published except for 1954.

35. The C.M.I. collected information for all the important items and other important aggregates relating to industries. The coverage, however, was limited only to the power-operated factories employing 20 or more workers and to the first 29 of the 63 industry groups in which all the registered factories were classified. The coverage in the last two years, viz., 1957 and 1958 suffered again as the C.M.I. in these years were conducted on voluntary basis.

36. From the year 1959 the A.S.I. has replaced the C.M.I. and the S.S.M.I. The A.S.I. is also conducted by the Government of India. It covers the whole of the registered factories establishment sector under two parts (i) the census part and (ii) the sample part. The census part covers all the power-operated factories employing 50 or more workers. The sample part covers all the remaining registered factories on a sample basis, about 25 per cent of the factories being covered by the sample.

37. The advantage of the A.S.I. over the C.M.I. is that it gives the State level estimates for all the industry groups, and for both types of factories, viz., those using power and those not using power. Copies of the returns of the A.S.I. are also made available to the State Statistical Bureau and hence the required information for the purpose of income estimation can be compiled by them and used as provisional till the final figures are released.

38. There is no difficulty in assessing the income, for the years 1959 and onwards, from the registered factory establishments as firm estimates of value added are available from the A.S.I. for the year 1959 and onwards. The problem of estimation is only for the years prior to 1959. Two different methods are followed for building up the income estimates of Gujarat State from the factory establishments for the years prior to 1959. These two methods followed by the Bureau are described in the following paragraphs.

39. The first method is to prepare estimates on the basis of information available in the C.M.I. It partly consists of forward projections from the C.M.I. data for 1957, 1958 and 1959. The C.M.I. data are not available for the Gujarat State for 1958 and hence projections are necessary. Projections are also made for the year 1959, for comparing the results obtained by the two methods.

40. Value added for the groups of factories covered by C.M.I. is readily available. Hence, the estimate of value added for factories not covered by C.M.I. remains to be made. The estimate for the Non-C.M.I. factories is made by grouping these factories into various industry groups corresponding to the first 29 C.M.I. groups for which information for a particular year is available. The number of workers in the Non-C.M.I. groups of factories can be obtained by first grouping the total number of workers in the various industry types corresponding to C.M.I. groups, and then deducting the number of workers in the C.M.I. groups from it. Information regarding total number of workers in different industries is collected by the Chief Inspector of Factories. The value added per worker for C.M.I. groups is deflated by 15 per cent and then applied to the total number of workers in the group of Non-C.M.I.

factories, to get the total value added by the Non-C.M.I. sector. Although the C.M.I. and Non-C.M.I. factories do not correspond strictly to the census and the sample part of A.S.I. in the absence of any other information this *ad hoc* method is adopted for deflation.

41. For 1958 and 1959 the estimates are prepared by forward projection of value added per worker as in 1957 for different groups of industries. The output and input per worker in 1957 for an industry group is adjusted by the relevant wholesale price index of raw material and finished product respectively. Their difference gives the value added per worker for each group at current prices. For break up of the workers in the C.M.I. and the Non-C.M.I. factory groups, the same ratio of workers in C.M.I. groups to total workers as in 1957 is applied to get the number of workers in the C.M.I. groups and factories not coming under C.M.I. Then the value added per worker is applied to the number of workers, to find the contribution of factory establishment sector.

42. The second method is to make backward projections based on the A.S.I. 1959 results. (The results of the census part are published but estimates based on the sample part are compiled by the Bureau). The output and input per worker for each industry group as a whole, i.e., actual for the census and estimate for the sample factories combined is adjusted with the relevant wholesale price index of raw materials and finished products, the difference of which is value added per worker at current prices. The value added per worker obtained for a group for a particular year in conjunction with the total number of workers gives the contribution of that group of factories to the factory establishment sector.

43. The results of these two methods for factory establishments (excluding electricity generation and transmission) are given below.

(Rs. in lakhs)

	Method	1955	1956	1957	1958	1959
1	C.M.I. data with forward projection	7,505	7,415	7,567	7,770	8,081
2	1959 A.S.I. data with backward projection for previous years.	7,179	7,413	7,641	8,182	8,326

It can be seen that the estimates given by the second method agree within less than one per cent for the years 1956 and 1957 for which available C.M.I. data has been used. For the years 1958 and 1959 for which C.M.I. data are not available the first method gives, figures which are less by about 4 per cent compared to the corresponding figures given by the second method, while in the case of 1955 the first method gives figures higher by 4 per cent. Since the A.S.I. gives firm data for 1959, it could be perhaps inferred that while backward projections based on 1959 data give sufficiently close results the forward estimates based on the limited C.M.I. data tend to understate the net output figures. Therefore, even for the back years the estimates based on the second method are accepted as the net output of factory establishments. To get the actual contribution of the sector towards the State Income deductions for imputed banking charges at the rate of 2.5 per cent are made as adopted by the C.S.O. for the national income estimates.

Income at Constant Prices

44. Income at constant prices is estimated by multiplying the value added per worker in the base year for each industry group to the total number of workers in different years. This method, however, is followed only for the years 1955-56 to 1958-59, the years for which income at current prices is estimated by adjusting the output and input per worker as in the year 1959-60, with the wholesale price index of finished products and raw materials respectively. For the years 1959-60 and onwards, as the total output and input for each industry group are available from the results of the A.S.I., the double deflation method is preferred to the method followed for the previous years. In the double deflation method, the total output for each industry group is adjusted with the wholesale price index of relevant finished products to obtain the total output at the year prices. Similarly the total input is adjusted with the wholesale price index of raw materials relevant for a particular industry group to find the value of input in the base year. The difference is taken as value added at constant prices.

45. Income from electricity generation at constant prices is arrived at by adjusting the income with the index of electricity generated in the State, which is available for all the years.

APPENDICES

EXTRACTS FROM PUBLISHED WORKS

APPENDIX I—MIRAT-I-AHMADI SUPPLEMENT

APPENDIX II—AYEEN AKBERY
(AIN-I-AKBARI)

EXTRACTS FROM PUBLISHED WORKS

APPENDIX I

Mirat-I-Ahmadi Supplement

Translated by

SYED NAWAB ALI, M.A. AND CHARLES NORMAN SEDDON, I.C.S. (RETIRED)

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CHAPTER V

The Sarkars and Parganas of the Province of Ahmedabad, with a list of villages, their income, and the Faujdars and Thanadars with their contingents

Pages 162 to 189

In the time of the Sultans of Gujarat, the Province of Gujarat consisted of 25 Sarkars, but Akbar after conquering it divided it into 16 Sarkars as mentioned in the Introduction—Six of them pay tribute and the rest revenue. As, owing to mismanagement and the incursions of the Marathas, the Revenue Department does not now receive regular files from the districts showing accounts of newly populated or ruined villages, I have given below what I have copied from the record for the Turkish year[1] *Takhaqu il, i.e.* 1161 Fasli, or 1166 A.H.

I. *Ahmedabad Sarkar*

Ahmedabad consists of 33 divisions,[2] two of which belong to the city. A description of the city and of the mint has already been given in the previous chapter; the remaining divisions are given below.

Pargana Haveli—consists of 193 villages in twelve groups, forming one division with 12 outposts. This Pargana was formed in the following manner. When Sultan Ahmad laid the foundation of this great city close by Asawal, some of the neighbouring[3] villages such as Astodiya, Asarwa, Khamandrol, and Rakhial, were included in the city and its suburbs. Then, Asawal and Manjhuri being raised to the status of suburbs, the Sultan was pleased to order that the villages of Khamandrol, Asarwa, Aspur, Chandloria, and Ghatloria (near Asawal), extending to a distance of ten *kos*, and bounded by Pargana Bahial on the east, Viramgam on the west, Dholka on the south, and Kadi on the north, be formed into one Pargana named Haveli Pargana.

Names of the Head Villages of the Twelve Groups—Rakhial; Rajpur; Bagh-i-Firdaus; Khamandrol; Naginai; Shaikhpur; Nadichah; Nadi Ret; Usmanpur; Daryapur; Jhundao; Changezpur.

The remaining 181 villages yield an annual income of 33,488, 053 *dams*—forty *dams* equalling one rupee. The Faujdars and Thanadars of the Pargana are under the Fauzdar *Gard*.

Pargana Arharmatar–12 *kos* from Ahmedabad towards the south-west, forming one division. In olden times Arhar was the chief town, but when

1 Year of the Cock. The Tatar cycle of 12 years was introduced by the Mughal emperors. Each year was named from an animal, thus : *Sihqanil* year of the mouse; *at il*, horse; *takhaqu il*, cock, etc.

2 Persian محال *mahal*, which is the plural of محل *mahall*, a place. The word however is used for a fiscal division, whether territorial or not. Thus each Pargana has so many divisions with separate accounts : so too have other heads of revenue, such as the Port of Surat, or the Customs Department.

3 There must be many errors in the long lists of villages in this chapter. Many of the names cannot, now be indentified. Some places have doubtless become waste and disappeared, owing to political distrubances and economic causes. Others have changed their names. Many mistakes too must have occurred in copying down names, either in the original work or in copies of it; the Persian character makes this a very probable occurrence. Finally, it must be remembered that our author has obtained his information from a record which had probably already become very incorrect. Lists of villages — known in Gujarat as *Dehjhadas* — were always maintained, but they were commonly taken from older records without personal verification.

the centre of population was shifted to Matar the two names were combined and the Pargana was called Arharmatar. It has 69 villages with an income of 20,082,798 *dams*, and has a Faujdar, who with one hundred horsemen (without contingent), controls eight Thanas, namely, Libasi; Mankoh; Komamodij; Khomanwar; Siyuj Boriavi; Shamspur; and Kodali. Ten extra Thanadars are appointed by the Emperor for the above Pargana, as recommended by the Nazims and Diwan; They are as follows :—

Khera—50 horse (conditional); Thana.
Baori—10 horse.
Thana Jejka—15 horse.
Thana Pilara—100 horse, personal.
Thana Ratanpur—50 personal, 35 horse.
Thana Chil, Sirdij, and Lakhoda, have 50 personal, and 100 horse.
Thana Kirmala—50 horse.
Thana Dihgam Karwa—50 horse.

Pargana Azamabad, 40 *kos* from Ahmedabad towards the east, has one division. In the reign of the Emperor Shahjahan Azam Khan Udai built a strong fort on the bank of the river Vatrak to keep the rebellious Kolis under control, and, attaching to it twelve villages of Pargana Bahial and Kapadwanj, reported the matter to the Emperor. A separate Pargana was, therefore, created, with Thanas in 12 villages, having an income of 15,61,000 *dams*, and a Fort commander and a Faujdar with 500 horsemen.

The Thana of Islamabad, better known as Nadiad, had 200 horse, and the Thana of Attarsumba was attached to it. The Zamindars of Attarsumba, Mandva, Haldarwas, and Ghorasar, and some others, in order to preserve their rights, embraced Islam in the reign of Sultan Ahmad Gujarati, and the Sultan, because they had done this, left all their villages with them and accepted a fixed annual *Nazrana*. The descendants of these Zamindars are now nominally called Muslims, but they are really strangers to the Faith.

Pargana Idar—45 *kos* from Ahmedabad on the north-east. It is bounded by the territory of the Zamindars of Udaipur, Dongarpur, and Danta. It has an old fort on the top of a hill, and streams running through the town and its suburbs. The district consists of 768 villages, besides 290 others belonging to the Zamindars as waste lands and *Inams*. The Nazim receives tribute from the Zamindars. The others, 47 in number, yield an income of 10,00,000 *dams* with 20 lakhs as *Inam*. The following Thanas are attached to them, namely, Taodi; Adalim; Sarodi; Rupal; Basi; Medha; Giloda; Sanhali; Angadh; and Bhilwara.

Pargana Ahmednagar—35 *kos* from the city, between east and north. It has a strong fort built by Sultan Ahmad of Gujarat on the river Hatmati (as already mentioned in the chapter on the reign of the Sultan) to keep the Rao of Idar under control. The district consists of 47 villages with a revenue of 29,90,200 *dams*. The Faujdar maintains 120 cavalry (conditional), having the Thanas of Daud (which has a stone fort), Ghir, and two sub thanas named Sirath.

Pargana Bahial—12 *kos* from Ahmedabad on the east. It had an old fort for the Faujdar-now in ruins. There were 84 villages, but in the course of time eight of them have been attached to Pargana Azamabad, and the rest had a revenue of 18,07,689 *dams*. Its Faujdari is attached to that of Azamabad, with 700 horsemen (conditional). It has 12 Thanas as under:—

Komed—200 personal; 50 horse.
Kulij (under Yaumol)—100 horse.
Amliara (with a fort)—500 horse.
Sanpa—50 horse.
Two Thanas Bhanoi and Bhaura—80 horse.
Sirath, near Kalol—100.
Antoli—50 personal; 100.
Badlij—100.
Lohar—50.

Pargana Balasinor—30 *kos* from Ahmedabad on the east; forms one division. In the days of old it had no fort, but, in the reign of the Emperor Aurangzeb, Salabat Muhammad Khan Babi, being appointed local officer, built a rampart round the town and a citadel for the Faujdar, and founded another small fort where the highway robbers lived—now known as Salabat-nagar. It has 49 villages, and a town, with a revenue of 3,387,659 *dams*. The Faujdar keeps 100 cavalry (conditional).

Pargana Prantej—20 *kos* north-east from Ahmedabad. The Faujdar's stronghold is in ruins. It has 84 villages. Revenue 3,781,500 *dams*. The Faujdar has 200 horse, conditional with the commandantship of Daulatabad and the Thana of Lojhdarat.

Pargana Birpur—40 *kos* from Ahmedabad on

the east on the bank of the Baoli river; founded by one Bira Koli. It has 145 villages, 7 of which are under the Zamindars, and the rest give a revenue of 30,06,869 *dams*. The Faujdari with the Thanas of Forts—Kareth, Dhamod, Panudara,—has 100 horsemen (conditional).

Pargana Piplod—15 *kos* from Ahmedabad on the east. A district with a stronghold for the Faujdar; it has 11 villages, revenue 1,497,570 *dams*. The Faujdari is attached to the Thana of Dharisana, and has 50 horse (conditional).

Pargana Viramgam, better known as Jhalawar—20 *kos* from Ahmedabad on the west. In former days the chief town was Mandal, then the headquarters were removed to Viramgam, Jhalawar is inhabited by Rajputs, about whom strange stories are told. The rampart wall of Viramgam was built in the reign of the Emperor Muhammad Shah (*vide* his reign) by Udekaran Desai during the rebellion of Hamid Khan. As Viramgam is inhabited by Rajputs, and as its boundary touches the land of the Kathi robbers, an expeditionary force used to be sent to collect the taxes. So the Pargana was given as a conditional *Jahgir* to the Nazim of the Province. In the reign of the Emperor Muhammad Shah, during the viceroyalty of Asaf Khan, the Pargana was made Khalsa in exchange for Dholka. It had a Faujdar, and consisted of 628 villages, 105 of which remained in the hands of the Zamindars; the rest had a revenue of 2,38,61,871 *dams*, including duties on salt, excise, etc. It had three Thanas—Chunwal under Kadi; Shahpur, better known as Chuda; and Ranpur. As the Pargana was generally part of the *Jahgir* of the *Nazim*, it had to furnish no separate contingent.

Pargana Thamna—28 *kos* south-east from Ahmedabad, one division. It has a Faujdar. The village of Alina was under its jurisdiction for a considerable time. It has 39 villages. Revenue 1,14,50,380 *dams*. Thanas as under :

Alina; Torpa (the seat of the Faujdari); Punadra or Islamabad under Azamabad, with 200 horse; Sarsemni (long since deserted); Somnath, 200 horse; Sanoda, 80 horse (conditional).

Pargana Chorasi—32 *kos* from Ahmedabad on the south, with Cambay[1] and Ghoga ports, forming three divisions. Cambay is an ancient town with strong fortifications. The Faujdar and Mutasaddi is appointed under the Royal *sanad* by the Diwan. The Pargana contains 87 villages yielding 345,96,272 *dams*. The Faujdar has 100 horse (conditional) in addition to the Mutasaddiship. The Thanadari of the fort of Kajna—150 horse; Dhawan under conditional Thanas 170 horse; Napad (its fortress was built by Muhammad Ashraf Ghori), in addition to the Thanas, of Mahun, Wahi and Baman, has 150 horse; Badsara, 100 personal and 50 horse; Matil 50 personal, 100 horse; Ghada 50 horse, and Bistana 50 horse.

Port officials according to the Royal *sanad*—The Mutasaddi and Faujdar; The duties of the Mutasaddi and Faujdar, porterage and supervision of the ports of Ghoga and Kandhar, are entrusted to one person. The Qzai, Muhtasib, Daroga of the mint, accountant, treasurer, and the treasury officer, are appointed separately by the Emperor. Often the Mutasaddi is the Daroga of the mint, and the court of this place is under the Chief Provincial Court.

Divisions connected with the Mutasaddi. The Port, where imports and exports are taxed; its receipts are accounted for in the public treasury. A subordinate officer, the *Mir-i-Bahr* takes the dues on articles brought by land and looks after the marts of cotton, oil and salt. Rates are fixed under the seal of the Mutasaddi, the accountant, and the treasurer, and signed by the controller and then sanctioned for the whole country.

Gogha Port—Situated on the open sea, where big ships, which cannot enter the port of Cambay, anchor, and the cargoes are landed by lighters. The Naib of Cambay then collects the dues.

Pargana Petlad—30 *kos* south of Ahmedabad; a district with a fort for the Faujdar. In the reign of the Emperor Muhammad Shah, after the death of Najm-ud-daula, when the Marathas conquered the district, the fort was destroyed. Petlad is one of the best Parganas, and was often made *khalsa* in the reign of Aurangzeb. During the time of Muhammad Shah its revenues were earmarked for the salaries of the royal artillery. It consists of 248 villages, with a revenue of 4,62,31,360 *dams*. Cotton duties on the town and village of Sojitra are included in the revenues of the Pargana. There are 12 Thanas as under :—

1 Cambay was a famous port and is described by most of the European travellers. For a quaint description see the letter of Peter Della Valle written from Surat 22 March, 1623 A. D. Peter was not particularly sympathetic. "The people of Cambay," he writes "are most part Gentiles; and here more than elsewhere, their vain superstitions are observed with rigor."

Khatar; Salolij; Nar; Sarnij; Sojitra; Kava; Makror; Basad; Aras; Anklas; Bhadran; Borsad; Madanpur. At them are stationed 750 cavalry (conditional) and there are three other Imperial Thanas, namely, Bilbao, 500 cavalry; Basad; Bayara, 150 horsemen (conditional).

Pargana Jhalabara—12 *kos* north-east from Ahmedabad. One division with 70 villages. Revenue 3,835,000 *dams*. It has a Faujdar, with a fort called Islamabad or Sadra, having 170 horsemen (conditional). The Thana of Jahorbama has a separate force of 100 horse (conditional).

Pargana Haidarabad—16 *kos* south of Ahmedabad. One division, consisting of the town itself only. Revenue 344,489 *dams*. Has no contingent.

Pargana Dholka—12 *kos* south-west from Ahmedabad. One division—*khalsa* from olden times. In the reign of Muhammad Shah Asaf Jah took it in his unconditional *Jahgir*, and so Viramgam was made *khalsa* instead. Generally the Amin and the Faujdar are appointed by the Imperial Government, but sometimes these duties are same to the Provincial Diwan. It has 235 villages; Revenue 21,799,097 *dams*. The Amin has eighty horsemen (conditional). The Thanas are as follows:

Koth; Gondi; Sanand; Tandudara; Ratanpur; Salura; Bhat; Taraj; Hariala; Chansar; and Cherara—all under a Faujdar with no contingent. The five per cent customs receipts are included in the revenue of the Pargana.

Pargana Dhanduka—32 *kos* south-west from Ahmedabad, on the river Dhandar. One division with a Faujdar, and often included in the conditional *Jahgir* of the Nazims. It consists of 123 villages; Revenue 8,828,650 *dams*. It has no separate contingent for the Nazim's *Jahgir*.

Pargana Sarmal or Thasra—30 *kos* south-east from Ahmedabad on the river Mahi. One division of 38 villages. Revenue 5,131,760 *dams*. It has a Faujdar, stationed at the Thana of Barsi where the river Mahi flows. He has 20 horsemen and the Thana of Jerkal with 250 cavalry (conditional).

Pargana Shahjahanpur or Kanira—17 *kos* from Ahmedabad. One division, consisting of the town only with a revenue of 635,423 *dams*. The Faujdar has 25 cavalry (conditional).

Pargana Kapadvanj—19 *kos* from Ahmedabad on the east, one division. Round the town is a rampart facing the river Mohar. The Pargana consists of 36 villages, two of which are in ruins and the rest yield a revenue of 4,851,027 *dams*. Its Faujdar is generally attached to that of Azamabad, having 700 cavalry (conditional), with the Thanas of Kathnal; Bhanaira; and Ania. The Thana of Jaipal is under the Thana of Pamol, and has no contingent.

Pargana Kadi—17 *kos* north of Ahmedabad. One division, with an old stronghold now in ruins. In the year 1017 A.H. during the reign of the Emperor Jahangir, when Murtaza[1] Khan Bukhari was Viceroy this solid strong fort was rebuilt. Its gate has the following inscription carved on it:—

Murtaza Khan the Empire's Splendour.
Pride of the Realm, the Faith's Defender.
His is the Banner Fortune raises,
Earning the mead of all men's praises.
His is the Sword; and by his Pen
Strong is the Faith of Muslim men.
Whenever Fate's decrees oppress,
His is the Name the people bless.
His is the Writing o'er these walls.
"Bokhara's Fort"[2] the date recalls.

During the viceroyalty of Jawanmard Khan, Safdar Khan Babi built a rampart wall of bricks round the town. The Pargana has 282 villages. Its revenue is 5,69,00,972 *dams*. As Patta Chunwal in the Pargana of Viramgam is adjacent to it, 200 horsemen are posted at Kadi and Chunwal respectively for the subjugation of the Kolis.

Conditional Imperial Thanas are as under:

Alwa Sadra, has a fortress with 50 personal and 150 horse. Pethapur and Pipalpur, 133 horse, had a stronghold made of bricks which was ruined by the Zamindar of the place and then converted into shops. Kalol, 100 cavalry; Chorang, 100; Sonser, 60; Balwah, nil; Khorij, 100; Gojaria, 100; Hardi, nil; Mehsana, 200 personal and 200 horse; Pansar, 50; Basai Dabla, 100 personal, 20 horse. As many

1 Murtaza Khan Bukhari was Viceroy (1606-1609 A. D.) at the beginning of the reign of Jahangir.

2 قلعه بخاری gives the date 1018 A.H.

villages of Kadi are inhabited by Kolis, as many Thanas as are required have been sanctioned.

Pargana Modasa and Makhrej—45 *kos* north-east from Ahmedabad between the rivers Majham and Vatrak. Two divisions with 208 villages—163 in Modasa and 45 in Makhrej. Total revenue 81,35,049 *dams*. Its Faujdar (with the Thanas of Baberjoyla; Bhilora; Makhrej; and Suri) draws his salary from the Thana of Amliara in the district of Bahial.

Pargana Mahmudabad—12 *kos* south of Ahmedabad on the river Vatrak. Founded by Sultan Mahmud Begada, and named after him. It had beautiful palaces and was made his capital by Sultan Mahmud II, who built a palace called the 'deer[1] house'. It is one division of 12 villages; revenue 32,45,700 *dams*. Its Faujdari is not independent, but is attached to the Thanas of Nainpur and Khanjani, with the addition of a *Jahgir*.

Pragana Mamurabad—20 *kos* east of Ahmedabad. Has a stronghold at the confluence of the rivers Vatrak and Majham. One division of 43 villages; revenue 28,33,300 *dams*. Its Faujdari, with the Thanas of Antroli and Jhari, is under Azamabad with 700 cavalry. But when these are separate the following arrangement is made: 20 cavalry for Thana Bhonchal under Bamol; 300 for Kathnal; and 200 for Panjal, with 100 personal.

Pargana Monda[2]—19 *kos* south-east of Ahmedabad. One division of 90 villages—revenue 1,60,11,616 *dams*. Has a fort. Its Faujdari, with the Thanas of Kaloli, Umreth (town) Barsula, Narsanda, Beblana, Mangoli, Ranjholi, has 300 cavalry (conditional). Two Imperial Thanas, Fort Arjunpur and Fort Kathnali, have 100 horse; the Thanas of Andhaj and Fort Sahur have 50 horse; Bamol, with Kholij, 275 horsemen; and the Thana of Koklij, 300 (conditional).

Pargana Nadiad—20 *kos* south of Ahmedabad. One division of 36 villages; revenue 1,96,78,755 *dams*. Its Faujdari, with the Thanas of Sarsa and Rud, has 200 horse Imperial Thanas are as under:—

Sandalpur and Khanpur, two stations, 150 horse; Chaklasi, 100 personal and 100 horse; Sili and Kholwar (a fortress), two stations, 150; Mandan and Lenora, two stations, 150; and Bhalaj, 100 horse.

Pargana Harsol—24 *kos* north-east of Ahmedabad. Its strong fort was built on the bank of the river Meshwa in the time of the Sultans of Gujarat, but now it is in a ruined condition. One division of 33 villages; revenue 13,71,619 *dams*. Its Faujdari, with a Thana, has 50 horse.

II. *Pattan Sarkar*

Consist of 17 divisions. The city of Pattan in the Province of Ahmedabad was the ancient capital of the Rajas; and of the Sultans of Gujarat before the foundation of the city of Ahmedabad (*vide* Part I). The old population lived within the enclosure built by the Rajas, the remains of which, together with the gate of the Bhadar Fort and its high towers, still exist; but time has brought some changes. The new city is 45 *kos* north-west of Ahmedabad.

The Qazi, the Muhtasib, and the clerical staff, are appointed under Royal *sanads*; taxes are often collected direct. As the Pargana of Pattan is often given as a conditional *Jahgir* of the Nazim and its land-customs also belong to him, certificates of payment on things sent anywhere except to Ahmedabad are signed by the Faujdar and referred to the Provincial Diwan who affixes his seal, and then they are accepted in other places. The town and its customs form two divisions with an income of 25,06,000 *dams*.

Pargana Haveli Pattan—One division of 461 villages, revenue 3,64,69,121 *dams*. Its Faujdari has the following Thanas attached to it:—

Sidhpur; Unjha; Unava; Bhandu; Ubhara; Balisana; Sandir; Sankhari; Basai; Karovi; Manund; Bilaspur; Ganbhu; Sankarpur; Satwabar; Chanasma; Ruppur; Kidgar; Bhandni; Harij; Aghar; Kamboi; Andra; Samu; Kankrej; Kosa; Mesur; Mehsana; Sonk; Balam; Kamboi Solanki; Dhinoj. 750 horsemen are posted in these places and 21 lakhs *dams* are budgetted for rewards. Imperial Thanas are as under:—

Vadavil, 200 horse; Kakosi, 100 personal, 100 horse; Busamor, 50; Delwara, 50 personal, 20 horse.

1. See *Bombay Gazetteer* (Kaira and Panch Mahals), P. 173.
2. Or Mahudha

Pargana Vadnagar—It is said that in ancient times this was a big city with three hundred temples scattered throughout it, and bathing tanks built of stone—now in ruins. Its strong rampart wall, 30 *kos* north-east of Ahmedabad, still exists. Vadnagar is inhabited by wealthy Hindus, who are millionaire bankers, so much so that it has been said of Gujarat that it had two golden wings—one the town of Umreth and the other Vadnagar. Alas! these wings are now broken, and the city of Vadnagar suffered most (*vide* Mubariz-ul-mulk's viceroyalty). It consists of one division of 13 villages; revenue 5,96,456 *dams*; Faujdari 200 horse, conditional.

Pargana Bijapur—30 *kos* north-east of Ahmedabad. One division of 102 villages. In the reign of the Emperor Aurangzeb 10 villages were joined by the Emperor to Pargana Rasulnagar or Bisalnagar. The remaining 92 villages yield a revenue of 1,00,36,565 *dams*. Its Faujdari with the following Thanas—Ladol; Sondhra; Kaddah; Karol; and Bodra—has 250 horse conditional. Imperial Thanas are as under:—Maseya under Pethapur, 67 horse; Kundasan, 50 personal, 50 horse; Pendarda, 50 personal, 100 horse; Jankodra 10; Bijadra, 50 personal, 100 horse; Gongh, 100 personal, 100 horse; Aluria, 100 horse.

Pargana Palanpur—70 *kos* north of Ahmedabad—a fertile and thriving Province. One division of 179 villages, 29 of which belong to the Zamindars and the rest yield a revenue of 38,06,439 *dams*. From the reign of the Emperor Aurangzeb the descendants of Ghazni Khan of Jalor were hereditary Faujdars, but in the reign of the martyred Emperor Farrukhsiyar one Rahim Khan was appointed Faujdar instead. He had to fight with Ghazni Khan—a grandson who had been given the title of his grandfather. The former being worsted the latter (Ghazni Khan surnamed Firoz of Jhalor) sent presents to the court and got an order of confirmation. Karimdad Khan, his son, built a fort named Karimabad, for Palanpur had no fortification in those days, when the Marathas were raiding the country. Formerly the Nazims used to come forward for Imperial service, but now the Nazims have to collect the tribute by force, and the country is divided among their heirs as Zamindars. Now that Muhammad Bahadur of Jhalor rules there, a rampart with towers and battlements has been built round the city of Palanpur. Fine *Cheetahs* are found here and some are sent every year to the Emperor by the Provincial Government. The Faujdar, besides his own Faujdari, has also that of the Pargana of Deesa, and the following Thanas—Mahi; Sahor; Surang; Basu; Sasun; Malus; Surbhan; Jalesur; Lulva; Vilora; Salia; Malun; Khudil; Masun; Keyal; Mujadar; Maluman; Dhuma; Saklana; Sil; Sakal; Haluja; Jadsoala Lahura; and Puja. He has personal rank of 200, and 300 horse (conditional).

Pargana Tharad—80 *kos* north-west of Ahmedabad. One division of 166 villages; revenue 5,689,146 *dams*. Its Faujdari is worth with 2,600,008 *dams* as a conditional *inam*.

Pargana Terwara—70 *kos* north-west from Ahmedabad. One division of 104 villages, 72 of which belong to the Rajputs and pay no fixed revenue, and the rest yield a revenue of 250,000 *dams*. As the whole Pargana is given as a *Jahgir*, it has no separate Thanas and contingents.

Pargana Deesa—80 *kos* north of Ahmedabad with a brick stronghold; one division of 250 villages, eight of which are under local chiefs, and the rest yield a revenue of 1,608,070 *dams*. The Faujdars and Thanadars are annually changed. The following Thanas are under Palanpur Faujdari:—Bhoyan; Saraven; Jalalpur; Dhowa; Kakla; Wali; and Rajpur.

Pargana Dantiwara—80 *kos* from Ahmedabad on the banks of the Banas river. One division, newly acquired from the Zamindars of Jalor. Its Faujdari is under Palanpur, with 200 personal and 500 cavalry (conditional).

Pargana Rasulnagar—Or Bisalnagar. 30 *kos* north of Ahmedabad. The town was founded by one of the Gujarati Rajas. In the reign of the Emperor Aurangzeb, at the request of Mulla Hasan Muhammad Gujarati, 10 villages from the Bijapur Pargana and 9 from Kadi, being close to this Pargana were included in it; and it was named Rasulnagar by the Emperor. It has now 20 villages. Revenue 3,592,664 *dams*. Its Faujdari with the following Thanas:—Sewala; Gothwa; and Marudah Basna has 100 personal and 200 horse (conditional).

Pargana Radhanpur—60 *kos* north-west of Ahmedabad. Formerly it had a stronghold on a

hill, with a stone gate one *kos* from the town (now called Fatteh Kot). Jawanmard Khan, son of Safdar Khan who was appointed Vatandar of the town, built a rampart wall, and then after his death his son built a fortress by the side of a tank. It consists of one division of 65 villages; revenue 2,500,000 *dams*, which was the assessment at the time of Jawanmard's appointment as Vatandar. The Faujdari, combined with that of Terwara, is 200 personal and 100 horse (conditional). Here the Department of the Cloth Market also levies its dues.

Pargana Sami—40 *kos* north-west of Ahmedabad; has 42 villages and a revenue of 5,866,800 *dams*; Faujdari 200 cavalry (conditional).

Pargana Santalpur—87 *kos* north-west of Ahmedabad. One division; inhabited by Kolis, who pay only when forced to do so. The number of its villages has not been recorded; revenue 1,515,000 *dams*. This is treated either as *Nazrana* given to the Nazim, or is included in his *Jahgir*; no contingent is therefore required.

Pargana Kheralu—40 *kos* north-east of Ahmedabad. One division of 114 villages, 51 of which belong to the Zamindars and the rest yield a revenue of 5,787,700 *dams*. Its Faujdari, including the Thanas of Sarma and Hamidsar, is 100 horsemen, conditional.

Pargana Kankrej—75 *kos* north-west of Ahmedabad. One division inhabited by turbulent Kolis, who pay only when compelled. There is no record of its villages; its revenue of 1,315,000 *dams* is included in the conditional *Jahgir* of the Nazims, and it has therefore no contingent.

Pargana Munjpur—40 *kos* north-west of Ahmedabad; one division of 36 villages; revenue 4,071,723 *dams*. Faujdari, 200 horsemen, conditional.

Pargana Surwara—60 *kos* north-west of Ahmedabad. No record of villages; revenue 3,050,500 *dams*.

III. *Baroda Sarkar.*

Consists of four divisions.

Pargana Baroda—40 *kos* south of Ahmedabad; one division of 226 villages; revenue 7,44,03,659 *dams*. The town has a rampart wall with towers and battlements. Its Faujdari has the following Thanas—Padra; Mujpur; Hujra; Muli (Mahupur); Kandari; Choranda; Sarang Sokhra; and Salad; 300 horsemen; 80,00,000 *dams* as remunerations, with the addition of the Faujdari of Bahadurpur and Karkari fortress. It has 300 cavalry (conditional) according to the Royal *sanad*.

Pargana Bahadurpur—55 *kos* south of Ahmedabad; one division of 27 villages; revenue 31,65,993 *dams*. Its Faujdari is under the conditional Faujdari of Baroda, with the Thanas Sitpur and Dahadhu—80 horse.

Pargana Dabhoi—50 *kos* south of Ahmedabad. Has an ancient stone fort. It forms one division of 48 villages; revenue 1,04,13,010 *dams*. The Faujdari has 200 cavalry, conditional.

Pargana Sinor—60 *kos* south of Ahmedabad, on the bank of the Narbada; one division of 47 villages; revenue 1,14,87,522 *dams*; Faujdari 300 horsemen, and 82,00,000 *dams* as *inam* to the Faujdari of Baroda. The Thanadari of Miyagam has 150 horsemen, conditional.

IV. *Broach Sarkar.*

It consists of two divisions and two ports.

Pargana Broach—75 *kos* south of Ahmedabad situated on a very high hillock by the bank of the Narbada. The Pargana with its port has two divisions. It consists of 180 villages; revenue 1,52,33,754 *dams*. It was often attached and made *khalsa*. Faujdari, 250 cavalry, conditional. The port forms one division with a revenue of 9,50,000 *dams*. The Mutasaddi of the port of Surat looks after this port.

Pargana Ankleshwar—On the other side of the river Narbada. 82 *kos* south of Ahmedabad; one division of 50 villages; revenue 86,24,459 *dams*. Its Faujdari has no contingent.

Pargana Utleshwar—125 *kos* south of Ahmedabad on the other side of the Narbada, touching the boundary of Baklana. It forms one division under the local Zamindars. But, whenever it is given as a *Jahgir* to the Mutasaddi of Surat, its forces depend on the particular person who is Mutasaddi, and its revenue is exacted by force. There is no record of its villages; its revenue is 4,80,000 *dams*.

Pargana Orhar—105 *kos* from Ahmedabad in the vicinity of Surat towards the south. It is one division of 158 villages; revenue 83,02,000 *dams*. Its Faujdari, with the Thanas Barsa,

Kathodara, Velacha, and Avasar, has 130 cavalry (conditional). Frequently it is made part of the *Jahgir* of the Mutasaddi of Surat.

Pargana Tarkeshwar—105 *kos* south of Ahmedabad touching Rajpipla near the Narbada. It is one division of 11 villages; revenue 2,67,019 *dams*. As it is far off and mountainous, the Nazim and Jahgirdars cannot manage it, and it is therefore under a Zamindar and has no Faujdari.

Pargana Chermandvi—140 *kos* south of Ahmedabad on the other side of the Tapti, under a Zamindar who pays only when forced to pay. It is included in the remuneration of the Mutasaddi of Surat, who sends out expeditions to get in tribute. There is no record of its villages; its revenue is 3,00,000 *dams*.

Pargana Jambusar—50 *kos* from Ahmedabad on the other side of the Mahi; one division of 56 villages; revenue 91,36,285 *dams*. The Faujdari has no contingent. The following Thanas are attached to it—Junwel; Kavi; Kareli; Kau; Sikari Dalan; Kijra; Barsaki; Bhilam.

Pargana Dehijbara—80 *kos* south of Ahmedabad on the other side of the Mahi. It is one division of 12 villages; two of which have been flooded, the remaining ten produce a revenue of 34,97,098 *dams*. Its Faujdari, with the addition of the Thana of Lohara has 80 cavalry (conditional).

Pargana Galla—112 *kos* south of Ahmedabad, touching Pargana Kamrej in the Taluka of Surat. One division of 17 villages; revenue 11,00,000 *dams*. Its Faujdari has no contingent.

Pargana Gulbara—90 *kos* from Ahmedabad on the north of the Narbada. One division of 20 villages. Revenue 27,80,000 *dams*. No contingent.

Pargana Kahunduhar—80 *kos* from Ahmedabad on the banks of the Mahi, which falls into the sea here. One division; revenue 2,50,000 *dams*. The port is attached to Cambay.

Pargana Maqbulabad or Amod—50 *kos* south of Ahmedabad. One division of 36 villages. Revenue 75,95,400 *dams*. Faujdari, with the Thanas of Amod and Ajhod—50 cavalry (conditional).

Pargana Hansot—85 *kos* south of Ahmedabad. One division of 51 villages; revenue 85,88,612 *dams*. As this Pargana is a conditional *Jahgir*, forming the remuneration of the Mutasaddiship of Surat, it has no separate contingent.

V. *Champaner Sarkar.*

Consists of thirteen divisions. It has a fort named Pawagadh on the top of a mountain nearly four *kos* in height. The circumference of the fort is about half a *kos*, it has a number of gates, and a moat sixty yards wide, over which a wooden bridge, called "Patia Pul," is laid, which is removed during war time. It is a picturesque bit of land, abounding in trees, tanks, and running brooks. Sultan Mahmud Begada conquered it from Raval Patai, and founded a city at the foot of it named after himself, and made it his capital. Some of the Sultans of Gujarat had their capital here (*vide* their reigns). The commandant is under the Faujdari of Godhra, with 50 cavalry (conditional).

Pargana Haveli Champaner, or Halol and Kalol—50 *kos* south-east of Ahmedabad. 4 divisions of 127 villages. Revenue 33,01,200 *dams*. The Pargana Haveli Champaner division has a revenue of 19,910 *dams*.

Pargana Derol—One division of 12,90,662 *dams*.

Pargana Unadra—One division of 57,002 *dams*.

Pargana Jaladra—One division of 32,130 *dams*. Its Faujdari, with the Thanas of Kunwavdah and Kanjri, and the Thana of Pargana Delol, with the two Thanas of Pargana Jaladra and Avhadra, has 50 cavalry (conditional), under the Faujdari of Godhra.

Pargana Choras Champaner, or Waghodia—47 *kos* south-east of Ahmedabad. 69 villages. Revenue 35,27,430 *dams*. Faujdari a subdivision of Haveli Champaner, with two Thanas, Jarod and Waghodia.

Pargana Tamurbasna—60 *kos* south of Ahmedabad. One division. Its area and villages are not recorded. Revenue 24,05,050 *dams*. In olden times its Faujdari was 250 strong and separate, but now it is under Champaner. The Parganas and Thanas mentioned have 200 cavalry, conditional.

Pargana Dohad—77 *kos* east of Ahmedabad. One division of 100 villages. Revenue 13,43,000 *dams*. Faujdari 200 cavalry. The Thana of Halondi has 80 cavalry, conditional.

Pargana Sankhera—55 *kos* from Ahmedabad. One division of 83 villages. Revenue 43,13,169

dams. Formerly its Faujdari was separate with 250 cavalry, but now it is a subdivision of Baroda.

Pargana Savli—35 *kos* south-east of Ahmedabad, on the other side of the Mahi. One division of 54 villages. Revenue 34,42,950 *dams*. Faujdari 100 personal, 300 cavalry; Thana Vankaner, 100 conditional.

Pargana Walia—65 *kos* from Ahmedabad. One division of 55 villages. Revenue 62,000 *dams*. A subdivision of the Faujdari of Haveli Champaner.

Pargana Mohan—60 *kos* south-east of Ahmedabad towards Champaner. Mohan Jammugam and the Giras of a Zamindar from three divisions —the villages of which are not entered in the register because in the possession of the Zamindars. Revenue 58,82,797 *dams*. The Faujdari of the above three divisions is 100 personal and 400 cavalry. It forms a conditional *Inam* of 30,00,000 *dams*. The new Pargana Ali is included in the province of Khandesh.

VI. *Nandod Sarkar.*

Consists of twelve divisions.

Pargana Haveli Nandod—75 *kos* from Ahmedabad towards the Narbada, in the vicinity of Rajpipla.

Amroli; Badal; Bahwa; Tilakwada; Jammugam; Maragdara or Kukurmonda; Sarek; Ubdah; Murmi; and Kuwali Saha. In all eleven divisions; 135 villages. Revenue 71,12,870 *dams*. It is a subdivision of the Faujdari of Baroda.

Pargana Basrai—90 *kos* from Ahmedabad in the vicinity of Surat. One division of 111 villages. Revenue 51,01,458 *dams*.

VII. *Godhra Sarkar.*

Consists of fifteen divisions.

Pargana Godhra—45 *kos* east of Ahmedabad. One division of 170 villages. Revenue 70,59,537 *dams*.

Pargana Jhalod—37 *kos* east of Godhra. One division of 34 villages. Revenue 11,35,490 *dams*.

Pargana Shera—7 *kos* north of Godhra. One division of 24 villages. Revenue 2,10,617 *dams*.

Pargana Dhamod—8 *kos* east of Godhra. One division of 7 villages. Revenue 4,38,980 *dams*.

Pargana Nadli—35 *kos* east of Godhra. One division, unrecorded. Revenue 1,71,982 *dams*.

Pargana Nemdah—23 *kos* from Godhra. One division, unrecorded. Revenue 30,81,262 *dams*.

Pargana Mathral—18 *kos* east of Godhra. One division, unrecorded. Revenue 7,55,930 *dams*.

Pargana Morvah—10 *kos* east of Godhra. One division, unrecorded. Revenue 30,660 *dams*.

Pargana Kohana—15 *kos* east of Godhra. One division, unrecorded. Revenue 30,86,585 *dams*.

Pargana Dodah—15 *kos* east of Godhra. One division, unrecorded. Revenue 2,86,012 *dams*.

Pargana Ambavav—5 *kos* east of Godhra. One division, unrecorded. Revenue 54,062 *dams*.

As seven Pargana are in the possession of the Zamindars details about their villages are not found in the record office. The Faujdari of Godhra Sarkar has the following Thanas, viz., Jalod; Mumamakan; Kasba Shera; Bhabuta (on them is the duty of guarding the road from Godhra to Dahod) Kathbabalia; Chaukia Churia; and Kaliadhara; 500 cavalry (conditional) with 2,000,000 as *Inam*.

VIII. *Sorath Sarkar.*

Consists of 62 divisions, including 12 ports. When the fort of Junagadh was conquered by Sultan Mahmud Begada a city named Mustafabad was founded at the foot of the mountain (*vide* his reign). The fort of Junagadh has been described in connection with the viceroyalty of Khan-i-Azam Mirza Aziz Kokaltash under the reign of the Emperor Akbar. This Sarkar extends from Kuliana. 50 *kos* from Ahmedabad, to Jagat or Dwarka on the seashore. It is one hundred and fifty-five *kos* in length. Sixty-nine stone forts with towers and battlements still exist. The Qazi and his clerical staff hold their appointments under Royal *sanads*.

Pargana Haveli Junagadh—110 *kos* south of Ahmedabad. One division including Dhoraji and Majhuri. 192 villages. Revenue 1,25,83,931 *dams*. Faujdari 1,000 cavalry; 80,00,000 sanctioned as *inam*. The custody of the forts of Junagadh and Girnar is included in this Faujdari.

The Mint—One division—was formed formerly for the Mahmudi coinage, current in the land; later on, it was abolished, as mentioned previously. Income 1,00,000 *dams*.

Pargana Adyata—12 *kos* north-west of Junagadh. Has a fortress, the seat of a Governor.

Nowadays it has a rampart wall round the city on the banks of the Bhadar. One division of 53 villages, 41 of which are deserted; the remaining 12 have a revenue of 25,15,460 *dams*.

Pargana Una—60 *kos* south-east of Junagadh. Has two fortresses with fortifications. The Faujdar's fortress is four *kos* from the seashore. Another fortress, called Dilwara, is one *kos* from Una. The Pargana, with its port, has two divisions of 231 villages, 143 of which are deserted and there are no details in the records office. The remaining 88 villages yield a revenue of 63,15,262 *dams*. Una in Gujarat is famous for its swords. It is said that a particular well was reserved for tempering the swords. In the course of time this well dried up. Old swords are now very rare. The port of Diu, which was captured by the Europeans in the reign of Sultan Bahadur of Gujarat, is situated here (*vide* his reign).

Pargana Amreli—30 *kos* east of Junagadh. One division included in the district of Kathiawar belonging to the Alak and Khuman Khatis. 103 villages. Revenue 16,72,050 *dams*.

Pargana Arteja—40 *kos* from Junagadh. One division of 25 villages. Revenue 4,73,000 *dams*.

Pargana Bilkha—8 *kos* south-east of Junagadh. Has a fortress. One division of 59 villages and 2 hamlets. Revenue 1,16,000 *dams*.

Pargana Bandar—25 *kos* north-east of Junagadh. Has a fortress for the Faujdar. One division of 97 villages. Revenue 19,49,702 *dams*.

Pargana Banna—25 *kos* from Junagadh; has a town and a fortress. One division, deserted for many years past. Revenue 40,000 *dams*.

Pargana Bhund—20 *kos* from Junagadh. One division, with a town. Revenue 2,57,00,330 *dams*.

Pargana Bantwa—15 *kos* north-west of Junagadh. One division of 74 villages. Revenue 99,66,365 *dams*.

Pargana Jamjharao—40 *kos* from Junagadh. One division of 84 villages. Revenue 1,15,376 *dams*.

Pargana Bagasra—22 *kos* from Junagadh. Belonging to the Alak Kathis. One division of 131 villages. Revenue 6,25,454 *dams*.

Pargana Palitana—50 *kos* east of Junagadh. Has two forts. The fortified town and citadel is at Shatranja, which has a height of five *kos*, where a temple of the infidel Shrawak Banias is built. Shatranja is the name of a river. The Pargana belongs to a Zamindar. One division. Revenue 50,000 *dams*.

Pargana Pattandeo—A port 30 *kos* south of Junagadh on the seashore. Two divisions of 102 villages. Revenue 47,17,000 *dams*. Pattandeo has a very strong fort, with a deep moat made of dressed stones. It is said that a palm tree which grows inside the moat just shows its leaves above. The famous temple of Somnath is here. Bilamal is one *kos* from the port. It had no rampart wall, but in the reign of the Emperor Muhammad Shah Nemat Khan Lodi built one.

Pargana Porbandar, Navibandar, Ramabao, and Jahanian—35 *kos* west of Junagadh. Two divisions. The above four ports have strong fortresses on the seashore. 42 villages. Revenue 8,79,125 *dams*.

Pargana Bilirani—50 *kos* east of Junagadh, with towers of stone. One division of 15 villages. Revenue 18,500 *dams*. It has a separate Faujdari (according to the Royal *sanad*) with 200 cavalry, conditional.

Pargana Talaja, with a port—70 *kos* south-west of Junagadh. Has a fort on a hill. Now the Zamindar has fortified the town. Two divisions of 811 villages. Revenue 28,54,415 *dams*. The fortresses of Jhanjmir and Sultanpur on the seashore also belong to the Zamindar. The Faujdari, according to *sanad*, is 100 cavalry, conditional.

Pargana Jagat Dwarka, known also as Mustafanagar—60 *kos* north-west of Junagadh on the seashore. The temple of Dwarka is in the island of Shankhoddar, whither come Hindus from all parts of India. One division, unrecorded, in the possession of a Zamindar. Revenue 8,40,000 *dams*. In the reign of the Emperor Aurangzeb it was under a Faujdar, but now a Zamindar has got possession of it.

Pargana Jetpur—15 *kos* north of Junagadh, on the river Dhadhar. A fortified town with a fortress for the Faujdar. The stronghold of the village Sapar is separate. Two divisions of 70 villages. Revenue 4,63,169 *dams*. The Faujdari, according to the Royal *sanad*, is 100 cavalry, conditional.

Pargana Chorwar, and port—25 *kos* south-west of Junagadh, half a *kos* from the seashore. The fortified town and the fortress of Kokaswara together from two divisions of 40 villages. Revenue 7,13,900 *dams*. Formerly it had a separate

Faujdari : now it is in the possession of a Zamindar.

Pargana Jhao—45 *kos* east of Junagadh. The town is in ruins and in the possession of a Zamindar, who has founded a stronghold at Rangula. One division of 24 villages. Revenue 2,30,000 *dams*.

Pargana Dharmal—5 *kos* from Junagadh, near Mount Girnar towards the north-east. One division; the town is in ruins; 32 villages on Rayatwari tenure, and revenue, 23,86,385 *dams*.

Pargana Varnagar with port—60 *kos* south-east of Junagadh, on the seashore; two divisions of 12 villages. Revenue 7,70,000 *dams*.

Pargana Dhatrod—45 *kos* south-east of Junagadh, near Una. One division, unrecorded. Revenue 1,00,000 *dams*.

Pargana Dhari—25 *kos* south-east of Junagadh, with a fortress for the Faujdar. One division of 43 villages. Revenue 50,000 *dams*.

Pargana Dahak—70 *kos* from Junagadh, with four fortresses. The town, with villages Harsaran, Walad, and Dalodra, forms one division of 25 villages. Revenue 3,35,000 *dams*.

Pargana Daulatabad—50 *kos* south-east of Junagadh. One division. Revenue of the town 1,00,000 *dams*.

Pargana Rajkot or Masumabad—25 *kos* north-east of Junagadh, with 8 fortresses. The town is the seat of a Faujdar—and Jasdan, Anandot, Bahadurpur, Majek, Jamanpur, Sanora, and Sardhar or Masumabad, form one division of ten villages. Revenue 6,00,000 *dams*. Masum Quli *alias* Shujaat Khan, in the reign of the Emperor Muhammad Shah, and during his Faujdari, killed the Zamindar of Junagadh after a long struggle. Raja Quli *alias* Rustam Ali Khan was wounded in the fight. Then Masum built the fort of Masumabad, and acquired for himself from the Emperor the Faujdari and Watandari of the Pargana. The payment of revenue was subject to his being the Faujdar of the Pargana.

Pargana Rakhvan—50 *kos* south-east of Junagadh, near Palitana. One division of 10 villages. Revenue 1,00,000 *dams*.

Pargana Ranpur—12 *kos* east of Junagadh. Rayatwari. One division of 172 villages. Revenue 10,46,656 *dams*. Faujdari 300 cavalry, conditional.

Pargana Barwala—40 *kos* north-east of Junagadh. As it belongs to the Khachar Kathis its villages are not recorded. Revenue 47,400 *dams*.

Pargana Senhor—70 *kos* south-east of Junagadh, in the possession of a Zamindar and near Ghoga port. The ports of Bhargej and Bhavnagar, newly founded by Bhausingh Zamindar, and a fortress on the seashore visited by ships, are included. One division of 6 villages. Revenue 1,00,000 *dams*.

Pargana Barbara—30 *kos* north-east of Junagadh. Has a fortress. One division of two villages. Revenue 50,480 *dams*.

Pargana Khontdar—45 *kos* south-east of Junagadh. One division, unrecorded. Revenue 1,05,054 *dams*.

Pargana Gondal—25 *kos* north of Junagadh. One division with 3 fortresses, *viz*: the town of Dolia, the village of Arduna, and fort Pipli, 50 villages. Revenue 2,00,000 *dams*.

Pargana Kariardhar—40 *kos* south-east of Junagadh, under a Zamindar, who has built a stronghold. One division of 40 villages. Revenue 6,28,042 *dams*.

Pargana Ghogabara—80 *kos* south-east of Junagadh, on the seashore. The port is under the Mutasaddi of Cambay, and the town is fortified. One division of 103 villages. Revenue 11,80,000 *dams*.

Pargana Kodinar—45 *kos* south-west[1] of Junagadh, and two *kos* from the seaside. Two divisions including the port. Europeans have captured the island and port of Diu, which is eight *kos* from Una and five from the mainland, and which properly belongs to this Pargana. One division of 133 villages. Revenue 52,59,527 *dams*.

Pargana Kotiana—20 *kos* from Junagadh, with a fortress in the town and a citadel for the Faujdar; and the forts of Aka, Kinbli, and Dura, on the north-east. One division, Rayatwari, of 116 villages. Revenue 8,81,821 *dams*.

Pargana Lathi—40 *kos* east of Junagadh, in the province of Kathiawar. One division with a citadel. Revenue 1,46,000 *dams*.

Pargana Guliana—60 *kos* east of Junagadh, near Dhanduka, with a citadel for the Faujdar on the frontier of Sorath. One division of 104 villages. Revenue 16,02,700 *dams*.

1. South-East (?).

Pargana Mandvi—45 *kos* south-east of Junagadh near Kariadhar, with a citadel for the Faujdar. One division of 25 villages. Revenue 50,000 *dams*.

Pargana Mendarda—2 *kos* South of Junagadh, with a fortress. One division of 90 villages. Revenue 12,91,195 *dams*.

Pargana Mahuva—60 *kos* south-east of Junagadh, near the sea, with a citadel and a port. Two divisions of 80 villages. Revenue 34,58,375 *dams*.

Pargana Mangalor[1]—20 *kos* south-west of Junagadh, 2 *kos* from the seashore. Has a fortified town and a citadel for the Faujdar. The fortress of Malia and the port form two divisions of 227 villages. Revenue 96,07,135 *dams*. The following fortresses are situated in the Pargana:—

Mahupur; Sabhli; Balagam; Kesuj; belonging to a Zamindar, who is said to be a relation of Raja Mandlik of Sorath; Akiya; Bagasra.

Pargana Morvi—70 *kos* north-east of Junagadh, on the banks of the river Machu. A fortified town with a citadel for the Faujdar. The fortresses of Modhur and Shahpur belong to a Zamindar. One division, unrecorded, of 200 villages. Revenue 30,30,000 *dams*.

Pargana Muhammad Nagar or Halvad—80 *kos* north-east of Junagadh, and 50 *kos* from Ahmedabad, in a valley. Including the fortified town it forms one division of 112 villages, unrecorded. Revenue 25,08,000. In the reign of the Emperor Aurangzeb it was given to Nazar Ali Khan as *Jahgir*, and he paid 25,000 rupees annually. Afterwards it became non-regulation, and the Nazims take it by way of tribute. 100 personal and 300 cavalry, with the Faujdari of Pargana Kadi.

Pargana Malikpur—60 *kos* south-east of Junagadh, on the seaside, with the port of Muzaffarabad built by Sultan Muzaffar Gujarati. Two divisions of 27 villages. Revenue 2,50,000 *dams*.

Pargana Hastichok—40 *kos* south-east of Junagadh, near Palitana. One division of 14 villages. Revenue 4,01,000 *dams*.

IX. *Islam Nagar, or Nawanagar Sarkar.*

Of 17 divisions, besides divisions of the ports, etc., which are not registered.

It is said that in ancient times Jam Raval, one of the relations of the Raja of Cutch, after a struggle lasting two months, left Cutch and founded the city of Nawanagar, between Cutch and Junagadh, gradually conquering neighbouring places. It was called "Little Cutch". In the reign of the Emperor Akbar the Jam remained in possession, as in the times of the Sultans of Gujarat. But in the reign of the Emperor Aurangzeb Nawanagar was captured by the Imperial Government (as recorded elsewhere). At the request of Maharaja Jaswantsinghji, Nazim of the Province, the Jam with his sons was recognised, and received nine divisions from Pargana Khambalia as *Jahgir*. Nawanagar was then named Islamnagar. An office—Diwan and Mutasaddi—for collecting taxes and the management of the mint, where *mahmudis* were recoined into rupees, was attached to the Crown estates, but gradually the salaries of the Deccani officials and of the Provincial Government and its Faujdars and the Jahgirdars were paid from this source, and it was almost all accounted for. After the death of the Emperor Aurangzeb the Jam obtained possession. One concession is, however, given, *viz.*, duties levied at Ahmedabad are accepted here without extra charge. The Zamindar is called the Jam.

Pargana Haveli Islamnagar, etc.—110 *kos* west of Ahmedabad, with a fort. It has a strong rampart wall, with turrets and six gates with guns mounted. The Mandvi Mint was established for the melting of *mahmudis* on behalf of the Imperial Government. Income 50,000 *dams*. Here are Government Mutasaddis for collecting dues. Revenue 9,23,700 *dams*.

Pargana Haveli—One division of 253 villages.

Pargana Amran—One division, east of Islamnagar towards Ahmedabad. 52 villages. Has a fortress for the Faujdari. The tomb of Malik Abdul Latif, better known as Shah Dawal, is here.

Pargana Pardhari—South-east of Islamnagar. One division of 39 Thanas.

Pargana Kalabar—South of Islamnagar. One division of 79 villages, with a citadel for the Thanadar.

Latifpur—One division of 25 villages with a Thana.

Pargana Deraya—South of Islamnagar. One division of 86 villages. The Thanas of Pargana Haveli, etc., are six in all. The division, being newly conquered, no detailed account village by

1. Non known as Mangrol According to Bird Mangrol is the Monoglossum imporium of Ptolemy.

village has been received in the office. For Crown lands and *Jahgirs* the total revenue has been assessed at 52,82,432 *dams*. The Faujdari of Islamnagar, including its Thanas, is 1,000 personal and 700 cavalry conditional.

Pargana Khambalia with its port—Both towards the west of Islamnagar. One division of 65 villages, with a stronghold for the Thanadar. Revenue 20,10,000 *dams*.

Pargana Marandi—West of Islamnagar. One division of 48 villages. Revenue 10,72,200 *dams*.

Pargana Baniali—West of Islamnagar. One division including the port of Jhakar. 22 villages. Revenue 6,70,600 *dams*.

Pargana Visawara—South-east of Islamnagar. One division of 19 villages. Revenue 4,00,000 *dams*.

Pargana Dhrol—One division of 97 villages. Revenue 15,33,000 *dams*. The Jam had a share in this Pargana.

Pargana Raipur, also known as Badh—West of Islamnagar. One division of 53 villages. Revenue 15,85,000 *dams*. Has a Thanadar.

Pargana Khandolia—South of Islamnagar. One division of 128 villages. Revenue 23,00,000 *dams*. Has a fort where a Thanadar is posted.

As the above Parganas, in whole, or in some cases as to a share, have been bestowed on Jam Tamaji as *Jahgir*, and the revenues are therefore divided, except in the case of the Parganas and forts attached to the Sarkar of Islamnagar, and are not included in the accounts, there is no record in the office. And the Parganas—Jodhpur; 01; Jodia; Balamba; Bhakol; Harsavarsa; Juba, which has a port—yield a revenue of 1,97,44,254 *dams* for the whole of the Sarkar which is assessed and not assessed.

X. *Surat Sarkar.*

The administration of the Sarkar of Surat sometimes belongs to the Mutasaddi of that place, but it often forms part of the administration of the Province. It has 31 divisions—ports and parganas.

The city of Surat—110 *kos* south of Ahmedabad. Its boundary in the reign of the Sultans of Gujarat extended to Katalkhanpur. In the reign of the Emperor Akbar the Pargana of Nandurbar, etc., which belonged to the province of Khandesh, was included; so the present boundary is upto Mirkot in the Pargana of Tugara, and the boundary towards Baglan is upto Kundmar. In olden days the city had no rampart wall, but this was built in the time of the Emperor Aurangzeb when the Deccanis raided the country. In the reign of Farrukhsiyar, when Haidar Quli was Mutasaddi, another wall named Almpanah, enclosing some of the *puras* (as mentioned in the description of ports, etc.), was constructed. Officials are appointed by Royal *sanad*. The Fort Commandant is appointed under the seal of the Commander of the artillery, and he has 250 cavalry, excluding his personal *mansab* and contingent.

Description of the Fort.

It is said that in the time of the Sultans of Gujarat Rander was the port, but in the year 947 A.H. a Turk named Safar Agha,[1] who received the title of Khudawand Khan in the reign of Sultan Mahmud, in order to put an end to the piracy of the Europeans who were harassing the inhabitants, began to build a strong fortress. When building it Europeans arrived with ships and guns, and began to bombard the fort to prevent its being built. Their efforts proved vain, and the fort was finished—with walls fifteen yards wide and twenty yards high, solidly built—mounted with heavy guns, and provided with arms and ammunition. Then the pirates were repulsed.

Officers

The Mutasaddi—Appointed by *sanad* under the seal of the Diwan-i-Ala, with 100 personal and 200 contingent. He has agents appointed to collect dues at the port and inland.

According to precedent the following appointments are made by the Head Office : the Artillery Commander; Grand Bakhshi; Chief Judge; Mir-i-Saman; Post Master; Sadrs; Qazis; Bakhshis; reporters; peons; Muhtasib (controller); Superintendent of Arab and Iraqi horses, which are imported in ships; Superintendent of cattle market; Court Daroga, Amin of the Treasury and

1. Perhaps mistake for Asghar Agha. Bird thinks that he was the Rumi (Turkish) Khan, who cast the great gun at Bijapur named the Malik-i-maidan, in 1097 A. H.

of expenditure; Superintendents of the Civil Court; of Public Works; of Magazines; of Mint; of Salt; of Customs; of Charitable Endowments; of Provisions; of Jewellery and Fancy Markets; of Rent Collections; of Hospitals; of the Langar Khanas; of Corn Markets; and for the annual presents for the Harims of Mecca and Medina.

Divisions are altogether 29.

The city with the Mint and Corn Market, etc. One division. Revenue 1,50,00,000 *dams.*

Pargana Chorasi—One division of 84 villages. Revenue 41,67,650 *dams.*

Pargana Rander—One division—the town. Revenue 2,68,000 *dams.* Formerly it was a city.

Pargana Haroli—One division. Revenue 15,40,000 *dams.*

Pargana Balsar—One division of 52 villages. Revenue 35,77,000 *dams.*

Pargana Chikhli—One division of 84 villages. Revenue 13,00,000 *dams.*

Pargana Marpara—One division. Three *kos* north of the port of Surat. Revenue 6,70,000 *dams.*

Pargana Bardoli and Momra—Two divisions. 12 *kos* from Surat. Revenue 5,00,000 *dams.*

Pargana Gandevi—19 *kos* from Surat. One division of 27 villages. Revenue 23,00,000 *dams.*

Pargana Balesar—One division of 23 villages. Revenue 1,00,000 *dams.*

Pargana Malur—19 *kos* from Surat. One division of 64 villages. Revenue 30,94,893 *dams.*

Pargana Khandka—22 *kos* from Surat. One division of 16 villages. Revenue 1,41,917 *dams.*

Pargana Sahrat—One deserted division of 21 villages. Revenue 1,60,000 *dams.*

Pargana Balvara—39 *kos* from Surat. One division of 20 villages. Revenue 1,98,288 *dams.*

Pargana Anawal—One division of 6 villages. Revenue 50,100 *dams.*

Pargana Vahmuri—One division of 16 villages. Revenue 75,000 *dams.*

Pargana Lohari—One division of 12 villages. Revenue 1,00,000 *dams.*

Pargana Bansar—One division—the town—Revenue 5,40,000 *dams.*

Pargana Sirbhon—One division. Revenue 12,25,000 *dams.*

Pargana Kharod—One division. Revenue 6,92,000 *dams.*

Pargana Mosar—One division. Has a fort Commandant. Its Thanadari is subordinate to the Mutasaddi of the port. Revenue 16,40,000 *dams.*

Pargana Mahuwa—One division. Revenue 1,20,620 *dams.*

Pargana Biyadra—One division. Revenue 8,36,325 *dams.*

Pargana Kus—One division. Revenue 1,20,308 *dams.*

Pargana Barjot—One division. Revenue 53,77,371 *dams.*

Pargana Talari—One division. Revenue 4,96,000 *dams.*

Pargana Kamrej—12 *kos* north-east of Surat. One division. Revenue 19,35,000 *dams.*

Pargana Navsari—One division. Revenue 6,03,200 *dams.*

Pargana Talsir—One division. Revenue 30,80,278 *dams.*

CHAPTER VI

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V. *Sarkar Sulaimannagar, known as Cutch*

100 *kos* north-west of Ahmedabad, adjoining Tattah. On the road from Ahmedabad by way of Katariachol is a salt desert known in Gujarati as the *Runn*, and it has been described before; there is a *Runn*, too, measuring 8 *kos* on the road to Radhanpur. In the time of the Sultans of Gujarat the Zamindar possessed 2,080 villages, with 4,000 cavalry as contingent. But when the Province fell into the hands of the Moghals, Sultan Muzaffar, the last king of Gujarat, took refuge with Bahara, then Zamindar of Cutch. Khan-i-Azam Mirza Aziz Kokaltash, the Nazim of the province, hotly pursued the fugitive king, and Bahara, unable to resist the Imperial forces revealed the whereabouts of the unfortunate Muzaffar, who was soon captured. (*vide* Akbar's reign.) As a reward for his services Bahara requested Mirza Aziz to give him Pargana Morvi

and exempt him from future service. The request being acceded to, Bahara gradually annexed to his *Jahgir* the villages of Keri, Sathalpur, and Kanikot, round about Pargana Murdawara. He also took Pargana Rajbar (in Tattah), which had been conquered by Sultan Mahmud Begada, thus increasing his old possessions. At present he is one of the wealthiest Zamindars of the Province, holding about 8,000 villages and many ports. When Prince Dara Shikoh entered Gujarat by way of Tattah, and after being defeated retreated again to that place (*vide* Aurangzeb's coronation), Aurangzeb ordered Qutbud-din Khan, son-in-law of the Faujdar of Junagadh, to march with an army and punish the Zamindar, who had kept some of Dara Shikoh's jewels and kit.

The Zamindar surrendered these things, and paid three lakhs of *mahmudis* as tribute. In return he was given a robe of honour and an elephant. As Cutch is of old a feudal land no detailed account is found in the Imperial records. Some of the Parganas and well-known ports, however, are described. In the reign of Muhammad Shah, Shujaat Khan, Naib of Muizud-daula, received six lakhs of *mahmudis* as tribute.

Bhujnagar—The seat of the Zamindar, with a strong fort with turrets and battlements and guns mounted on it. Now-a-days another fortress, called Bhuj Bhang, near the rampart wall, has been built on the top of the hill. Bana Shahi and Mana Shahi swords of the best quality are made here.

Pargana Anjhar—On the sea side, south of Bhuj. Two divisions, including the port. Has a fortress.

Pargana Chuyari—One division.

Pargana Dharka—One division.

Pargana Mandvi—On the seaside, south of Bhuj. Two divisions, including a port. Has a fortress.

Pargana Sarma—On the seashore. Two divisions, including a port.

Pargana Harialal—One division.

Pargana Bara—One division.

Pargana Bijhana—50 *kos* from Bhuj; one division.

Pargana Kuvadra—40 *kos* from Bhuj; one division.

Pargana Pandni—One division.

Pargana Barbari—One division.

Pargana Kothari—One division. Has a fort.

Pargana Narainsar—One division.

Pargana Talya—One division. Has a fort. 42 *kos* from Jagat.

Parganas Katara, Kanikot, Bandar Sagalo—One division each.

Bandar Dotalodi—One division. Has a fort.

Bandar Mundra—One division.

Pargana Rasmeda—One division.

Pargana Kathara—One division.

Pargana Nagri and Sankmut—Two divisions.

Pargana Sasri—One division.

Ports, Arma, Godra, Jakki—One division.

Bandar Kankrala—One division. On the seashore, between Cutch and Tattah.

Bandar Auranga—One division, touching the Province of Tattah and the ports attached to it.

* * *

CHAPTER VII

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On the Names of Various Tracts

In the kingdom of Gujarat most areas are specially named, and wonderful stories are told about the origin of these names.

* * *

Parkar Des—On the other side of the Runn of Cutch as far as the seashore.

* * *

Pages 210 to 214

Wonders of Gujarat

Gujarat is an extensive country. Owing to its distance many of its wonders and marvels have not been heard of by others. I have, however, described some of them in the introduction and previous chapters on temples and *Tirths*. Other miscellaneous examples are given below:—

Windmill—It is said that in former times there was a windmill higher than the mausoleum of

Shah Bhikhan in the city. When the wind blew its wings began to move. Now its lower stone remains intact on a mound. The date of its construction is not known.

There are some select wells on the Kankariya tank in the city. Cotton clothes, embroidery, and satin, if washed therein, increase in lustre and colour.

There is a pond called Kantoria near Bara Nainpur where *Salu*[1] clothes are washed and their colour improved. As the pond is dry in summer water is drawn from an adjacent well and poured into its bed, which being mixed with the mud of the bottom produces the same effect.

There was a mosque in Chanasma (near Pattan) which had twelve windows in its western wall, through each of which people could easily see the new moon. Upto the time of the Emperor Aurangzeb a camel-rider used to be despatched to Ahmedabad to tell men there about the new moon. The wall is now falling down and some of the windows are broken.

Iron is found in Pargana Chhakkar (Surat Sarkar). Pearls are found in Walibandar in taluka Navanagar. Some of them are worth Rs. 500. Navanagar pearls are famous, and they are sold in the city of Ahmedabad; being smuggled there through fear of the Zamindars.

In the neighbourhood of Pargana Badnagar gun-powder is prepared from the nitre there found.

Crystal is found in Kapadvanj and is made into decanters[2] and bracelets for women, but its colour is green and it cannot be whitened. "Baba Ghori"[3] stone is quarried from the Majham river. The cornelian cutters of Cambay make cornelian vessels and knife handles.

Iron mines were worked in former times near the town of Kapadvanj. Heaps of refuse are still to be seen there. There are also some silver mines which the smelters secretly utilised for themselves. This fact being discovered they fled for their lives, and their secret was lost.

In the town of Dabhoi there is a stone ring called Mama Dukri hung up as a touch stone for truth and falsehood. Those who are innocent can pass through it even if they be corpulent, but woe to the culprit—he is caught and can only be extracted if they open the ring. This is a mystery. Nothing is known as to the date and who Mama Dukri[4] was.

It is said that in ancient times in Nagra, one and a half *kos* from Port Cambay, there was a big city with walls of copper called Tamba Nagari. Some say that while digging a wall a brick of copper was found, testifying to the truth of this legend. But "the teller is responsible for the truth of it." It is said too that, in the days of old, Kaira was a big city peopled by the spinners of the sacred thread (now called Khedawal Brahmans), and it had a Raja who committed sin for which the city was engulfed. Men point out the river Vatrak flowing through the midst of the city. Bricks of its ruined buildings are dug out as a testimony to the divine punishment. Each brick is half a span thick, and one and a half spans in breadth, and one cubit in length; all being of equal size, weighing nearly twenty Shahjahani seers. Some walls and rooms too are still found intact. The writer has himself seen the signs of buildings in the old river bed, which appear as a mound, and traces of the ruined buildings are found a spear's length below the earth. Diggers have found brazen vessels arranged in order in a niche, which, through the passing of times, turn to ashes at the touch of a hand. And sometimes during the rainy season silver coins with the image of an ass are found—said to have been struck in the name of Raja Gadhesingh,[5] about whom strange stories are told.

1. A cotton upper garment worn by women (Belsare).
2. Qawarir (plural of qarurat), flasks, decanters.
3. Baba Ghori—A kind of stone resembling agate.
4. See *Baroda Gazetteer*, Vol. II, page 506. It is said (by Forbes) that a certain Seyid Ballah — a stranger passing through Dabhoi with his mother Mama Dukri on the way to Mecca — bathed in the sacred lake. Thereupon, the Brahmans had his hands cut off, and from this mutilation he died. Mama Dukri is said in revenge to have stirred up the sovereign of her country to attack and destroy Dabhoi. During the seige she died and was buried near the Hira Gateway, where her tomb still remains. The story is probably a fabrication. But the tomb exists; and by its side is an upright slab with a well-worn hole through it. Through this hole the innocent can pass; but not the guilty.
5. Sir Donkey.

Nowadays Muhammad Khan Babi has built from the old debris a fortress and some houses; and excavation still shows, innumerable bricks.

In the fields of Naroda or Nahrwala in Pargana Haveli three *kos* from the city of Pattan, old iron pieces called *mandur* are found, which are used by Indian physicians as a cure for certain diseases. These pieces of iron are taken far and wide for use.

In the mountains of Sorath, where no people are, there is a tree growing, which is such that any living being passing by it; or any bird sitting on it, is killed straightway. It is said that an army was once sent to collect tribute from Sorath. A soldier going out to obey a call of nature broke off a twig for a toothstick; no sooner had he applied it to his teeth than they all became loose and fell out. In the neighbourhood of the town of Una (Sarkar Sorath) there is a well named Sari, the water of which adds to the temper and sharpness of swords.

It is said that once a certain person placing a sword so treated in his lap leaned down to drink water from his hands. The sword being slightly pressed cut through its scabbard, passed through the man's stomach, and killed him on the spot. So the well was filled up with earth, which is now used instead of water to temper swords. The swords of Una are famous in the land.

In the mountains of Rajpipla many herbs and drugs are found, especially a drug from the tree called Ragatroda, whose wood when pounded like sandalwood is a cure for many diseases.

Mount Girnar is covered with innumerable fruit trees and extensive greenery. It is said that some of its herbs are used in alchemy, and many Yogis and Sanyasis from long distances go in search of them. Many streams run, and hard by, is Mount Jamil Shah where gold is found. In the rainy season, when the stream called Sonrekha flows from this hill, its sand yields gold (as mentioned above).

It is said that a party of men was once wandering about on the Mount Girnar when one of them plucked a flower and smelt it. Straightway he turned into a serpent, and avoiding the company of his fellows crept into a cave and disappeared. Therefore, persons visiting this mountain dare not touch or pluck any flower or herb which is not known to them, for fear of being thus transformed.

It is said that if ten persons go for worship to the temple of Kali Bhavani, which is on the highest peak of the Girnar and the ascent to which is most difficult, one member of the party disappears mysteriously.

In the ocean off Junagadh a kind of fish is found, which if exposed for a while to the sun, melts like ice.

In olden times a certain Darvish wandering on Mount Girnar saw a fountain from which he began to fill his Tumdi or Darvish's gourd. "Do it not" said a mysterious voice to him; but he paid no attention to it. Twice, thrice, the voice warned him, but to no purpose. At last, when he rose up after filling his gourd, he heard the voice saying, "Begone; not thine, but Raeka's"!

The Darvish descended and went to the town, and unwillingly stopped at the shop of one Raeka, a grocer, to whom he entrusted his gourd and went out to answer a call of nature. And it so happened that a drop of water from the hanging gourd oozed out, transmuting into gold the grocer's iron weight which was lying under it. The wondering Raeka understood the process, and quickly taking the golden weight and the gourd placed them in a safe corner, and then set fire to his shop. Soon the Darvish returned and asked for his gourd. The wily grocer, who was lamenting and crying out for help, exclaimed "Cursed be thy gourd which brought this ruin on my shop. See how the flames are consuming every thing. Woe is me; I am undone."

The Darvish, who was unaware of the mystic action of the water, went back to the mountain, hoping again to fetch water from the fountain; but to his surprise he saw no trace of it. Like the fountain of life it was hidden from his sight! It is said that Raeka built from that wealth the famous temple of the Shravaks. He left descendants, who are still found in this land, living as common men.

APPENDIX II

Ayeen Akbery

(Ain-i-Akbari)

By ABUL FAZAL ALLAMI

Translated by FRANCIS GLADWIN

1898

VOL. II

PART I—THE HISTORY OF THE TWELVE SOOBAHS

Pages 350 to 360

THE SOOBAH OF GUJERAT

It is situated in the second climate. The length from Burhanpoor to Jugget is 302 Cose; and the breadth from Jalore to the part of Dummun measures 260 Cose; and also from Ider to the port of Cambayet it is 70 Cose broad. On the east lies Dandees; on the north Jalore and Ider; on the south are the ports of Dummun and Cambayet; and on the west Jugget, which is situated upon the sea-shore. In the southern parts of this Soobah are many mountains. It is watered by the ocean, and the following rivers: the Sabermutty, (*Suvarnamati*) the Bateruck, the Mehindery, the Narbudda, the Tapty, and the Sirsooty (*Sarasvati*). There are two other springs, called Gunga and Jumna. The air of this Soobah is very temperate. The soil is sandy, on which account the rain does not occasion any mud.

Jewary and Bajera are the grain principally cultivated here; and they are the chief food of the inhabitants. The spring harvest here is inconsiderable. Wheat and barley are imported from Malwah and Ajmeer; and they are supplied with rice from the Dekhan. The revenues are for the most part collected by Nussuk, measurement being seldom used here.

They enclose their fields and gardens with hedges of the Zecoom tree, which is a strong defence from cattle, and makes the country almost impenetrable by an army. There are such abundance of mangoes and other fruit trees, that the whole country seems a perfect garden.

From Putten to Berodeh (*Baroda*), the distance of 100 Cose, both sides of the road are lined with mangoes trees, whose fruits are remarkably large and most delicious. There is one sort which is sweet whilst it is green. This Soobah also produces abundance of very fine figs. Here are musk-melons in winter and summer, which continue in season for two months each time. Their grapes are indifferent. They have other fruits and flowers in abundance. The country is so much covered with fruit-trees, that it is impossible to hunt. Here are many wild leaopards.

The houses are for the most part covered with tiles, with walls of brick and Chunam. Some build themselves large houses of stone, with cavities in the walls, to which they have private ways of entrance.

A great many people in this Soobah ride in carriages drawn by oxen. It is famous for painters, carvers, and other handicraftsmen. They cut out letters in shells, and inlay with them very curiously. They also make beautiful inkstands and small boxes. They manufacture gold and silver stuffs, velvets, &c. And they imitate the stuffs of Turkey, Europe, and Persia. They also make very good swords, Jemdhers, Kewpwehs, and bows and arrows. Here is likewise carried on a traffic in precious stones. Silver is brought hither from Room and Irak.

At first Putten was the seat of government, then Chumpaneer, and now Ahmedabad. This last is a large, well-formed city, situated upon the river Sabermutty. It lies in latitude 23 degrees. The situation is remarkably healthy, and

you may here provide yourself with the productions of every part of the globe. There are two forts, on the outside of which is the town, which formerly consisted of 360 Pooras, (or quarters), but now only 84 are in a flourishing condition. In these are 1,000 stone mosques, each having two large minarets, and many wonderful inscriptions. In Poora Russoolabad is the tomb of Shah Alum, of Bokhara.

Putteweh is a town three Cose from Ahmedabad. Here is the tomb of Koteb Alum, the father of Shah Alum. It is built in a garden, with accommodations for people who have bidden adieu to the world. Over the sepulchre is a covering, about a cubit square, part of which is wood, another part stone, and the rest iron, And of this many wonderful stories are related.

At the distance of three Cose, from Putteweh is a place called Sirgunj (*Sarkhej*), where are the tombs of Sheikh Ahmed Khuteo and Sultan Ahmed, after whom Ahmedabad is named. Here also rest many of the Ghaurian Sultans. Here grows very fine indigo, which is exported to Room and other distant places.

At the distance of twelve Cose from Ahmedabad, stands the city of Mahmoodabad, founded by Sultan Mahmood. It contains many grand edifices, and is surrounded with a wall seven Cose square; at every half Cose of which is erected a pleasure house, with an enclosure, in which are deer and other game.

The Zemeender of Ider, who is named Narain Doss, lives with such austerity, that his only food is grain, which has passed through oxen, and been separated from their dung; and this kind of aliment, the Brahmins consider as pure in the highest degree. This Narain Doss is one of the principal chiefs of the Rahtore Tribe; and he commands 500 cavalry and 2,000 infantry.

The ports of Cambayet (Cambay) and Ghogeh (*Gogo*) are dependent upon this Sircar. Ghogeh is a large port, well built, and inhabited by merchants of various kinds. Ships come to, and others are fitted out from, this place. The cargoes of the ships are put into small vessels, called Tahwery, which transport them to Cambayet. At Kurry are very fine oxen, some of which are sold for three hundred Rupees a pair and upwards, according to their beauty and speed.

Chalawareh (*Jhalwar*) formerly was an independent territory, containing 2,200 villages, which extended 70 Cose in length and 40 Cose in breadth; and it had 10,000 cavalry, with the same number of infantry. Now it has 200 cavalry and 3,000 infantry; is subject to the governor of Gujarat, and inhabited by the tribe of Chalah (*Jhala*). Although now formed into four divisions, it is only reckoned as a single Pergunnah of Ahmedabad. It has a great number of towns.

Putten has a stone fort and another of brick. It is situated in longitude 117°–10', and latitude 23°–30'. It produces oxen that will travel 50 Cose in a half a day. Here are manufactures of cotton cloths, which are transported to great distances.

Siddahpoor (*Siddhapura*) is a town on the bank of the Sirsooty, and is a great place of religious resort.

Beernagurgh, an ancient city, has in it three hundred idolatrous temples, each of which has a reservoir of water. The inhabitants are principally Brahmins.

Chumpaneer is a fort upon a lofty mountain, the access to which, for upwards of two Cose, is exceedingly difficult, and there are gates at several parts of the defile. At one place they have excavated near sixty ells in length, which space is covered with planks, that can be removed when occasion requires. Here grow very fine fruits.

Sooret (or Surat) is an emporium. The river Tapty runs past it, and at the distance of seven Cose from thence joins the sea. Raneer, which is situated on the opposite side of the Tapty, is a port dependent upon Surat. In ancient times, it was a large city. The ports of Kundery and Bulsar also belong to Surat. Here are very fine fruits, especially pine-apples. The followers of Zerdusht, (*Zoroaster*) when they fled from Persia, settled at Surat, where they practise the doctrine inculcated by the Zend, and its commentary the Pazend. They make use of sepulchres.* From the liberality of His Majesty's disposition, every sect exercises its particular mode of worship, without suffering the least molestation. Through the

*The reference is to the funeral structures, the Towers of Silence, the Parsese, *Ed.*

negligence of Soobadars and their officers, several of these Sircars are in the possession of the Europens; amongst the number are Dummun, Surjaun (*St. John*), Tarapoor, Mahum, and Bussy (*Bassien*), which are cities and emporiums.

Beroatch (*Broach*) has a fine fort; the river Nerbuddah runs past it, and then units itself with the sea. It is a great emporium, to which the ports of Kawee, Cundhar, Bhalwat, and Bhigooreh (*Bhakora*) also belong.

Near the town of Hansoot is a park, abounding with deer and other game. It is situated on the banks of the Nerbuddah, measures eight Cose in length, and four Cose in breadth, is perfectly level, and continually covered with verdure.

Sircar Surat was formerly an independent territory; the chief was of the Ghelote tribe and commanded 50,000 cavalry, and 100,000 infantry. Its length, from the port of Ghogeh to the port of Aramroy, measures 125 Cose; and the breadth, from Sindehar to the port of Diu, is a distance of 72 Cose. On the east lies Ahmedabad; on the north the territory of Cutch; and on the south and the west is the sea. The climate is healthy. Fruits and flowers are here in great plenty; amongst the former are grapes and musk-melons.

Surat is now formed into nine divisions, each inhabited by a different tribe.

The *First Division*, which is commonly called *New Surat* had not been explored for a long time, on account of the thickness of the forests and intricacy of the mountains. A person was carried through it by accident, who informed others of his discoveries. Here is a stone fort, called Chunahgurh, which was conquered by Sultan Mahmood, who built another stone fortress at the foot of it. Adhum is another fort, eight Cose distant from Chunahgurh. It is situated upon a mountain, but is now abandoned, although it might easily be put into repair. In its vicinity is a fort upon the mountain of Kernal, and surrounded with many large springs. Maabidcheen and Bunder Goondyluckyat are two places in its neighbourhood. At the distance of a Cose are two other places called Bunder. Behind Chunahgurh is an island, called Syalkookh, being a square of three Cose, where grow various kinds of wild fruits, and the inhabitants are mostly of the Kookyan tribe.

Near the town of Nowgongshah is a river, called Bhader, which empties itself into the sea. The fish of this river are so delicate, that, if they are exposed to the sun for a short time, they melt. At this town are to be procured very fine camels, and horses somewhat taller than those called Goote (*Gunth*).

The *Second Division* is Putten. It is a large town on the sea-shore, and has a stone fort, in a plain. It is also called Putten Soomnaut (*Pattan Somanath*).

The town of Owraneh* is situated at the distance of three Cose from the sea, and has a stone fort on a plain. Here are made good swords, near it being a well which sharpens any blade that is watered with it.

The source of the Nerbuddah, which is held very sacred by the Brahmins, is near Soomnaut. This city also is a great place of religious resort, as well as Beranjy and Gowreener. About four thousand years ago, in this neighbourhood, at a place situated between the rivers Burn and Sirsootty, there were assembled together an immense multitude of the Jadoon (*Yadu*) tribe, who, after sporting together, at length fought, and every soul of them perished in the conflict.

At the distance of half a cose from Putten Soomnaut, a person, named Bhalkateerut, came to Kishenteer, on the bank of the river Sirsooty, where, at the root of a peepul tree, he threw himself into the river;‡ and that spot is now called Peepulsir. Both these places are accounted holy. In the town of Moolmahadeo is a temple dedicated to Mahadeo, where, every year, on a certain day, there appears a bird, called, in the Hindovy language, Beekh, somewhat smaller than a pigeon, with a blunt bill, and whose body is pied black and white; and, having perched and sported on the top of the temple, for a short time, it then falls down and dies. The people of the town, who are assembled together upon this day, take up the bird and fumigate it with various perfumes, and from examining the marks of the bird, they

* This is not a proper name. It means a town with nine stone towers, *Ed.*

‡ The translation is inaccurate, *Ed.*

can from thence predict whether, in the ensuing year, there will be plenty of rain or a drought: a great degree of blackness promises rain, and on the contrary, a white plumage portends a drought. In this place they have three crops of Jewar in a year. Near a place called Oonah are two springs of water, which they call Gunga and Jumna. The water of these reservoirs bubbles up, and flows over. The fish of both these springs are said to have each three eyes, two in their proper place and one in the forehead.

Between Mangalore and Joorwar is a spot which is washed by the sea, but, on a certain day in the year, the water is quite fresh. The reason they assign for it is that, in ancient times, a person being in want of Ganges water, a holy man directed him to this spot, where he found fresh water; and, to this time, on the same day every year, the water is fresh. The chiefs of these two divisions are Rajpoots of the Ghelote tribe, as are the other inhabitants: each chief commands 1,000 cavalry and 2,000 infantry, together with a number of Aheers (or cowherds).

The *Third Division.* At the foot of the mountains of Sironj (*Satrunjay*) is a large city, now out of repair, although the situation is very desirable. Maabidcheen and the port of Ghogeh are dependent upon it. The Island of Birum (*Perim*) is also in this division: it is a square hill, of nine Cose, in the midst of the river, and formerly was the seat of Government. The Zemeendar of this division is of Gowhil tribe, and commands 2,000 cavalry and 4,000 infantry.

The *Fourth Division* includes the ports of Meheweh and Telaja. The inhabitants are of the Waleh tribe. This division has 300 cavalry and 500 infantry.

The *Fifth Division* is Jugget (*Jagat*), which is also called Daurka (Dvaraka). Kishen (*Krishna*) came from Mehtra (*Mathura*) and dwelt at this place, and died here. This is considered as a very holy spot by the Brahmin. The island of Singhoodehar, which measures four Cose square, is also reckoned in this division. Near Aramroy is an island 70 Cose in circuit. Here is a spot mostly stone, half a Cose in extent, from whence, when excavated, there issues out salt water on all sides. Mullick Jyaz, of the tribe of Khaseh Kyel, who was Governor on the part of Sultan Mahmood Gujeratty, has excavated about a fourth part of it. The port Aramroy is a very strong place, inhabited by the tribe of Badhil. This division has 1,000 cavalry and 2,000 infantry.

The *Sixth Division* has such large rivers, the mountains are so lofty, and the country in general so woody, as to be impervious for an army. It is inhabited by the tribe of Cheetore. It has 1,000 cavalry and 2,000 infantry.

The *Seventh Division* is inhabited by the Bagheyleh tribe, who command 200 cavalry and the like number of infantry.

Here are also many of the Kathy tribe, who are of the Aheer caste, and whose business it is to look after horses. Their military force is 6,000 cavalry and the like number of infantry.

Some people consider this tribe to be of Arabian origin. They are very sagacious, and extremely hospitable, and they will eat with persons of every religion. Many of them are exceedingly beautiful. When a Jagheerdar comes amongst them, they first exact an engagement that neither man nor women of them shall be called to account for incontinency. In the vicinity of this tribe, on the banks of the river Doondy, dwell a tribe of Aheers, who are called Poorunjah, and command 3,000 cavalry and the like number of infantry. They are perpetually at war with the tribe of Jam.

The *Eighth Division.* Here is a sea-port called Jhanjeer, inhabited by the tribe of Watchee. This division has 200 cavalry and the like number of infantry.

The *Ninth Division* is inhabited by the Charun (*Charana*) tribe. The Hindoos say that Mahadeo created, out of the sweat of his forehead, a human form, who he called Charun, and gave him charge of his own ox. This Charun composed verses, sang the praises of Mahadeo, and revealed to mankind past and future events. This tribe, who bear his name, are his descendants. The greatest part of them employ themselves in singing hymns of celebration, and in reciting genealogies: and in battle they repeat warlike fabbles, to animate the troops. They are also famous for discovering secret things. Throughout Hindustan there is hardly a great man who hath not some of this tribe in his service. Here are 500 cavalry, and 4,000 infantry. There is also another tribe, called Bhawt, who at least equal the Charuns in

animating the troops by martial songs, and in chronology excel them; but the Charuns are better soldiers. They say that Charun was created from the will of Mahadeo, and that Bhawt issued from his spine; and wonderful stories are told of these miracles, the relation of which would cause prolixity.

Between Chalwareh, Sircar Ahmedabad, Putten, and Surat is a low tract of country, 90 Cose in length, and in breadth from 7 to 30 Cose which is called Run. Before the commencement of the periodical rains, the sea swells and inundates this spot, and leaves it by degrees after the rainy season. When it becomes dry, great quantities of salt are manufactured there, the duties upon which are collected in the Pergunnah of Chalawar. Ahmedabad is situated to the east of this tract of land. To the west of it is a very large separate territory, called Cutch, the length of which is 250 Cose, and the breadth 100 Cose. The territory of Sind lies to the west of Cutch. The greatest part of Cutch is composed of woods and uncultivated sands. Their horses are very fine, and are supposed to be of Arabian extraction. They have also remarkably good camels and goats. Their chief is of the tribe formerly called Jadown, and now named Charunjeh. The men are tall and handsome, and wear long beards. The military force of this country is 10,000 cavalry and 50,000 infantry. The capital city is Tahej, which has two strong forts, called Jhareh, and Kuntkote. To the south of Tahej, on the Gujerat quarter, is a considerable Zemeendar, named Jam, who is related to the Raja of Thej. Sixty years ago, one Rawel, after a war of two months, drove him out of the country. He then settled in Sircar Surat, between the territories of Chatwah, Badhil and Nowneel; and possessing himself of other choice lands, founded the city of Nowanagur, and his new-acquired country obtained the name of *Little Cutch.* Suttersal, the present Raja, is his grandson. He has 7,000 cavalry and 8,000 infantry. This country is also famous for camels and goats. The Mahommedan religion has prevailed here a long time.

Near to Merow and Mungreetch is a territory, called Pall, through which runs the river Mehindery. On the Gujerat side of this territory is an independent Zemeendar, who resides at Doongurpoor. On the Malwah side of this country is Banswaleh, whose chief is independent. Those two last mentioned chiefs have each 5,000 cavalry and 1,000 infantry; and they were both of the Seesoodyah tribe, and relations to the Rana, but now the possessors are of another tribe.

In the vicinity of Sircar Putten is a country of which Serowhy is the capital. The chief commands 1,000 cavalry and 5,000 infantry. He has a fort, on the top of a mountain, called Iyugurh, encompassing twelve villages, with great plenty of water and pasturage. There is also another territory, situated to the east of Nuderbar, to the north of Mendow, to the south of Madowt, and to the west of Chumpaneer, measuring 60 Cose in length and 40 in breadth. The chief is of the Chowhan tribe, and his capital is Almyohan. Here are many wild elephants. The military force is 600 cavalry and 15,000 infantry.

Between the Sircars of Surat and Nuderbar is a mountainous country, well inhabited, called Buglana. The chief is of the Rahtore tribe, and commands 3,000 cavalry and 2,000 infantry. Here are apricots, apples, grapes, pine-apples, pomegranates, and citrons in great perfection. Buglana has seven forts, of which number Mowleer and Saleer are exceedingly strong.

Between Sircars Nadowt and Nuderbar is a hilly country, measuring 50 Cose in length, and 40 Cose in breadth. It is inhabited by the Gowhil tribe of Rajpoots. At present the management of public affairs is in the hands of one Tewary, a Brahmin; and the Raja, who possesses nothing but the name, resides sometimes at Rajpeeplah, and sometimes at Ghoolwa. He has 3,000 cavalry and 7,000 infantry. The water of the latter place is very bad; but there is produced very good rice and honey.

Gujerat contains nine Sircars, subdivided into 198 Pergunnahs, of which 13 are ports. The amount of revenue is 43 Crore, 68 Lacs, 2,301 Dams; together with 1 Lac, 62,628½ Dams of port duties. The whole being equivalent to Sicca Rupees 1,096,123-3-11.

The measured lands (besides Surat, which is paid by estimate), amount to 1 Crore, 69 Lacs, 36,377 Beegahs, and 3 Biswahs; out of which 4 Lacs, 20,274 Dams are Seyurghal.

This Soobah has 67,375 cavalry and 8,900 infantry.

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS AS ON 17-2-1964

AGARTALA—

Laxmi Bhandar Books & Scientific Sales (R)

AGRA—

National Book House, Jeoni Mandi
Wadhawa & Co., 45, Civil Lines
Banwari Lal Jain, Publishers, Moti Katra (R)
English Book Depot, Sadar Bazar, Agra Cantt. (R)

AHMADNAGAR—

V. T. Jorakar, Prop., Rama General Stores, Navi Path (R)

AHMEDABAD—

Balgovind Kuber Dass & Co., Gandhi Road
Chandra Kant Chiman Lal Vora, Gandhi Road
New Order Book Co., Ellis Bridge
Mahajan Bros., Opp., Khadia Police Gate (R)
Sastu Kitab Ghar, Near Relief Talkies, Patthar Kuva, Relief Road

AJMER—

Book-Land, 663, Madar Gate
Rajputana Book House, Station Road
Law Book House, 271, Hathi Bhata
Vijay Bros., Kutchery Road (R)
Krishna Bros., Kutchery Road (R)

ALIGARH—

Friend's Book House, Muslim University Market

ALLAHABAD—

Superintendent, Printing & Stationery, U. P.
Kitabistan, 17-A, Kamla Nehru Road
Law Book Co., Sardar Patel Marg, P. Box 4
Ram Narain Lal Beni Modho, 2-A, Katra Road
Universal Book Co., 20, M. G. Road
The University Book Agency (of Lahore), Elgin Road
Wadhwa & Co., 23, M. G. Marg (R)
Bharat Law House, 15, Mahatma Gandhi Marg (R)
Ram Narain Lal Beni Prashad, 2-A, Katra Road (R)

AMBALA—

English Book Depot, Ambala Cantt.
Seth Law House, 8719, Railway Road, Ambala Cantt. (R)

AMRITSAR—

The Law Book Agency, G. T. Road, Putligarh
S. Gupta, Agent, Govt. Publications, Near P. O. Majith Mandi
Amar Nath & Sons, Near P. O. Majith Mandi

ANAND—

Vijaya Stores, Station Road (R)
Charto Book Stall, Tulsi Sadan, Stn. Road (R)

ASANSOL—

D.N. Roy & R.K. Roy Booksellers, Atwal Building (R)

BANGALORE—

The Bangalore Legal Practitioner Co-operative Society Ltd., Bar Association Building
S. S. Book Emporium, 118, Mount Joy Road
The Bangalore Press, Lake View, Mysore Road, P. O. Box 507
The Standard Book Depot, Avenue Road
Vichara Sahitya Private Ltd., Balepet
Makkala Pustaka Press, Balamandira, Gandhinagar
Maruthi Book Depot, Avenue Road (R)
International Book House Private Ltd., 4-F, Mahatma Gandhi Road
Navakarnataka Pubns. Private Ltd., Majestic Circle (R)

BAREILLY—

Agarwal Brothers, Bara Bazar

BARODA—

Shri Chandrakant Mohan Lal Shah, Raopura (R)
Good Companions Booksellers, Publishers & Sub-Agent (R)
New Medical Book House, 540, Madan Zampa Road (R)

BEAWAR—

The Secretary, S. D. College, Co-operative Stores Ltd. (R)

BELGHARIA—

Granthlok, Antiquarian Booksellers & Publishers (24-Parganas), 5/1 Amlica Mukherjee Road

BHAGALPUR—

Paper Stationery Stores, D. N. Singh Road

BHOPAL—

Superintendent, State Government Press
Lyall Book Depot, Mohd. Din Bldg., Sultania Road
Delite Books, Opp., Bhopal Talkies (R)

BHUBANESWAR—

Ekamra Vidyabhaban, Eastern Tower, Room No. 3 (R)

BIJAPUR—

Shri D. V. Deshpande, Recognised Law Booksellers, Prop. Vinod Book Depot, Near Shiralshetti Chowk (R)

BIKANER—

Bhandani Bros. (R)

BILASPUR—

Sharma Book Stall, Sadar Bazar (R)

BOMBAY—

Superintendent, Printing & Stationery, Queens Road
Charles Lambert & Co., 101, Mahatma Gandhi Road
Co-operator's Book Depot, 5/32, Ahmed Sailor Bldg., Dadar
Current Book House, Maruti Lane, Raghunath Dadaji St.
Current Technical Literature Co., Private Ltd., India House, 1st Floor
International Book House Ltd., 9, Ash Lane, M. G. Road
Lakkani Book Depot, Girgaum
Elpees Agencies, 24, Bhangwadi, Kalbadevi
P. P. H. Book Stall, 190-B, Khetwadi Main Road
New Book Co., 188-190, Dr. Dadabhai Naoroji Road
Popular Book Depot, Lamington Road
Sunder Das Gian Chand, 601, Girgaum Road, Near Princess Street

BOMBAY-*contd.*

D. B. Taraporewala Sons & Co., (P) Ltd., 210, Dr. Dadabhai Naoroji Road
Thacker & Co., Rampart Row
N. M. Tripathi Private Ltd., Princess Street
The Kothari Book Depot, King Edward Road
P. H. Rama Krishna & Sons, 147, Rajaram Bhuvan, Shivaji Park Road No. 5 (R)
C. Jamnadas & Co., Booksellers, 146-C, Princess St.
Indo Nath & Co., A-6, Daulat Nagar Borivli
Minerva Book Shop, Shop No. 1/80, N. Subhas Road
Academic Book Co., Association Building, Girgaum Road (R)
Dominion Publishers, 23, Bell Building, Sir P. M. Road (R)
Bombay National History Society, 91 Walkeshwar Road (R)
Dowamadeo & Co., 16, Naziria Building, Ballard Estate (R)
Asian Trading Co., 310, the Miraball, P.B. 1505 (R)

CALCUTTA—

Chatterjee & Co., 3/1, Bacharam Chatterjee Lane
Dass Gupta & Co., Ltd., 54/3, College Street
Hindu Library, 69 A, Bolaram De Street
S. K. Lahiri & Co., Private Ltd., College Street
M. C. Sarkar & Sons Private Ltd., 14, Bankim Chatterjee Street
W. Newman & Co., Ltd., 3, Old Court House Street
Oxford Book and Stationery Co., 17, Park Street
R. Chambray & Co., Ltd., Kent House, P. 33, Mission Road Extension
S. C. Sarkar & Sons Private Ltd., I.C. College Square
Thacker Spink & Co., (1933) Private Ltd., 3, Esplanade East
Firma K. L. Mukhopadhaya, 6/1A, Banchha Ram Akrar Lane
K. K. Roy, P. Box No. 10210, Calcutta-19 (R)
Sm. P. D. Upadhyay, 77, Muktaram Babu Street (R)
Universal Book Dist., 8/2, Hastings Street (R)
Modern Book Depot, Chowringhee Centre (R)
Soor & Co., 125, Canning Street
S. Bhattacharjee, 49, Dharamtala Street (R)
Mukherjee Library, 10, Sarba Khan Road
Current Literature Co., 208, Mahatma Gandhi Road
The Book Depository, 4/1, Madan Street (1st Floor) (R)
Scientific Book Agency, Netaji Subhash Road (R)
Reliance Trading Co., 17/1, Banku Bihari Ghose Lane, District Howrah (R)
Indian Book Dist. Co., 6512, Mahatma Gandhi Road (R)

CALICUT—

Touring Book Stall (R)

CHANDIGARH—

Superintendent, Government Printing & Stationery, Punjab
Jain Law Agency, Flat No. 8, Sector No. 22
Rama News Agency, Booksellers, Sector No. 22
Universal Book Store, Booth 25, Sector 22-D
English Book Shop, 34, Sector 22-D (R)
Mehta Bros., 15-Z, Sector 22-B (R)
Tandan Book Depot, Shopping Centre, Sector 16 (R)
Kailash Law Publishers, Sector 22-B (R)

CHHINDWARA—

The Verma Book Depot (R)

COCHIN—

Saraswat Corporation Ltd., Palliarakav Road

CUTTACK—

Press Officer, Orissa Sectt.
Cuttack Law Times
Prabhat K. Mahapatra, Mangalabag, P.B. 35
D. P. Sur & Sons, Mangalabag (R)
Utkal Stores, Balu Bazar (R)

DEHRADUN—

Jugal Kishore & Co., Rajpur Road
National News Agency, Paltan Bazar
Bishan Singh and Mahendra Pal Singh, 318, Chukhuwala
Utam Pustak Bhandar, Paltan Bazar (R)

DELHI—

J. M. Jaina & Brothers, Mori Gate
Atma Ram & Sons, Kashmere Gate
Federal Law Book Depot, Kashmere Gate
Bahri Bros., 188, Lajpat Rai Market
Bawa Harkishan Dass Bedi (Vijaya General Agencies) P.B. 2027, Ahata Kedara, Chamalian Road
Book-Well, 4, Sant Narankari Colony, P. B. 1565
Imperial Publishing Co., 3, Faiz Bazar, Daryaganj
Metropolitan Book Co., 1, Faiz Bazar,
Publication Centre, Subzimandi
Youngman & Co., Nai Sarak,
Indian Army Book Depot, 3, Daryaganj
All India Educational Supply Co., Shri Ram Buildings, Jawahar Nagar (R)
Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market (R)
University Book House, 15, U. B. Bangalore Road, Jawahar Nagar (R)
Law Literature House, 2646, Balimaran (R)
Summer Brothers, P. O. Birla Lines (R)
Universal Book & Stationery Co., 16, Netaji Subhash Marg
B. Nath & Bros., 3808, Charkhawalan (Chowri Bazar) (R)
Rajkamal Prakashan Private Ltd., 8, Faiz Bazar
Premier Book Co., Printers, Publishers & Booksellers, Nai Sarak (R)
Universal Book Traders, 80, Gokhle Market
Tech. & Commercial Book Coy., 75, Gokhle Market (R)
Saini Law Publishing Co., 1416, Chabiganj, Kashmere Gate (R)
G. M. Ahuja, Booksellers & Stationers, 309, Nehru Bazar (R)
Sat Narain & Sons, 3141 Mohd. Ali Bazar, Mori Gate

List of Agents-*contd.*

DELHI-*contd.*

Kitab Mahal (Wholesale Div.) Private Ltd., 28, Faiz Bazar
Hindu Sahitya Sansar, Nai Sarak (R)
Munshi Ram Manohar Lal, Oriental Booksellers & Publishers, P. B. 1165, Nai Sarak (R)
K. L. Seth, Suppliers of Law, Commercial Tech. Books, Shanti Nagar, Ganeshpura (R)
Adarsh Publishing Service, 5A/10 Ansari Road (R)

DHANBAD—

Ismag Co-operative Stores Ltd., P. O. Indian School of Mines
New Sketch Press, Post Box 26 (R)

DHARWAR—

The Agricultural College Consumers Co-op. Society (R)
Rameshraya Book Depot, Subhas Road (R)
Karnatakaya Sahitya Mandira of Publishers and Booksellers

ERNAKULAM—

Pai & Co., Cloth Bazar Road (R)
South India Traders C/o Constitutional Journal

FEROZEPUR—

English Book Depot, 78, Jhoke Road

GAUHATI—

Mokshada Pustakalaya

GAYA—

Sahitya Sadan, Gautam Budha Marg

GHAZIABAD—

Jayana Book Agency (R)

GORAKHPUR—

Vishwa Vidyalaya Prakashan, Nakhes Road

GUDUR—

The General Manager, The N.D.C. Publishing & Ptg. Society Ltd. (R)

GUNTUR—

Book Lovers Private Ltd., Kadriguda, Chowrasta

GWALIOR—

Superintendent, Printing & Stationery, M.B.
Loyal Book Depot, Patankar Bazar, Lashkar
M. C. Daftari, Prop. M. B. Jain & Bros., Booksellers, Sarafa, Lashkar (R)

HUBLI—

Pervaje's Book House, Koppikar Road

HYDERABAD—

Director, Government Press
The Swaraj Book Depot, Lakdikapul
Book Lovers Private Ltd. (R)
Labour Law Publications, 873, Sultan Bazar (R)

IMPHAL—

Tikendra & Sons, Booksellers (R)

INDORE—

Wadhwa & Co., 56, M. G. Road
Swarup Brother's Khajuri Bazar (R)
Madhya Pradesh Book Centre, 41, Ahilya Pura (R)
Modern Book House, Shiv Vilas Palace (R)
Navyug Sahitya Sadan, Publishers & Booksellers, 10, Khajuri Bazar (R)

JABALPUR—

Modern Book House, 286, Jawaharganj
National Book House, 135 Jai Prakash Narain Marg (R)

JAIPUR—

Government Printing and Stationery Department, Rajasthan
Bharat Law House, Booksellers & Publishers, Opp., Prem Prakash Cinema
Garg Book Co., Tripolia Bazar
Vani Mandir, Sawai Mansingh Highway
Kalyan Mal & Sons, Tripolia Bazar (R)
Popular Book Depot, Chaura Rasta
Krishna Book Depot, Chaura Rasta (R)
Dominion Law Depot, Shah Building, P.B. No. 23 (R)

JAMNAGAR—

Swedeshi Vastu Bhandar

JAMSHEDPUR—

Amar Kitab Ghar, Diagonal Road, P. B. 78
Gupta Stores, Dhatkidih
Sanyal Bros., Booksellers & News Agents, Bistapur Market (R)

JAWALAPUR—

Sahyog Book Depot (R)

JHUNJHUNU—

Shashi Kumar Sarat Chand (R)
Kapram Prakashan Prasaran, 1/90 Namdha Niwas Azad Marg (R)

JODHPUR—

Dwarka Das Rathi, Wholesale Books and News Agents
Kitab-Ghar, Sojati Gate
Choppra Brothers, Tripolia Bazar

JULLUNDUR—

Hazooria Bros., Mai Hiran Gate (R)
Jain General House, Bazar Bansanwala
University Publishers, Railway Road (R)

KANPUR—

Advani & Co., P. Box 100, The Mall
Sahitya Niketan, Shradhanand Park
The Universal Book Stall, The Mall
Raj Corporation, Raj House, P. B. 200, Chowk (R)

KARUR—

Shri V. Nagaraja Rao, 26, Srinivasapuram (R)

KODARMA—

The Bhagwati Press, P.O. Jhumri Tilaiya, Dt.Hazaribagh

KOLHAPUR—

Maharashtra Granth Bhandar, Mahadwar Road (R)

KOTA—

Kota Book Depot (R)

KUMTA—

S. V. Kamat, Booksellers & Stationers (N. Kanara)

LUCKNOW—

Soochna Sahitya Depot (State Book Depot)
Balkrishna Book Co., Ltd., Hazratganj
British Book Depot, 84, Hazratganj

List of Agents-*contd.*

LUCKNOW-*contd.*
- Ram Advani, Hazratganj, P. B. 154
- Universal Publishers (P) Ltd., Hazratganj
- Eastern Book Co., Lalbagh Road
- Civil & Military Educational Stores, 106/B Sadar Bazar (R)
- Acquarium Supply Co., 213, Faizabad Road (R)
- Law Book Mart, Amin-Ud-Daula Park (R)

LUDHIANA—
- Lyall Book Depot, Chaura Bazar
- Mohindra Brothers, Katcheri Road (R)
- Nanda Stationery Bhandar, Pustak Bazar (R)
- The Pharmacy News, Pindi Street (R)

MADRAS—
- Superintendent, Government Press, Mount Road
- Account Test Institute, P. O. 760 Emgore
- C. Subbiah Chetty & Co., Triplicane
- K. Krishnamurty, Post Box 384
- Presidency Book Supplies, 8, Pycrofts Road, Triplicane
- P. Vardhachary & Co., 8, Linghi Chetty Street
- Palani Parchuram, 3, Pycrofts Road, Triplicane
- NCBH Private Ltd., 199, Mount Road (R)
- V. Sadanand, The personal Bookshop, 10, Congress Buildings, 111, Mount Road (R)

MADURAI—
- Oriental Book House, 258, West Masi Street
- Vivekananda Press, 48, West Masi Street

MANDYA SUGAR TOWN—
- K. N. Narimhe Gowda & Sons (R)

MANGALORE—
- U. R. Shenoye Sons, Car Street, P. Box 128

MANJESHWAR—
- Mukenda Krishna Nayak (R)

MATHURA—
- Rath & Co., Tilohi Building, Bengali Ghat (R)

MEERUT—
- Prakash Educational Stores, Subhas Bazar
- Hind Chitra Press, West Kutchery Road
- Loyal Book Depot, Chhipi Tank
- Bharat Educational Stores, Chhippi Tank (R)
- Universal Book Depot, Booksellers & News Agents (R)

MONGHYR—
- Anusandhan, Minerva Press Buildings (R)

MUSSOORIE—
- Cambridge Book Depot, The Mall (R)
- Hind Traders (R)

MUZAFFARNAGAR—
- Mittal & Co., 85-C, New Mandi (R)
- B. S. Jain & Co., 71, Abupura (R)

MUZAFFARPUR—
- Scientific & Educational Supply Syndicate
- Legal Corner, Tikmanio House, Amgola Road (R)
- Tirhut Book Depot (R)

MYSORE—
- H. Venkataramiah & Sons, New Statue Circle
- Peoples Book House, Opp., Jagan Mohan Palace
- Geeta Book House, Booksellers & Publishers Krishnamurthipuram (R)
- News Paper House, Lansdowne Building (R)
- Indian Mercentile Corporation, Toy Palace Ramvilas(R)

NADIAD—
- R. S. Desay, Station Road (R)

NAGPUR—
- Superintendent, Government Press & Book Depot
- Western Book Depot, Residency Road
- The Asstt. Secretary, Mineral Industry Association, Mineral House (R)

NAINITAL—
- Coural Book Depot, Bara Bazar (R)

NANDED—
- Book Centre, College Law General Books, Station Road (R)
- Hindustan General Stores, Paper & Stationery Merchants, P. B. No. 51 (R)
- Sanjoy Book Agency, Vazirabad (R)

NEW DELHI—
- Amrit Book Co., Connaught Circus
- Bhawani & Sons, 8-F, Connaught Place
- Central News Agency, 23/90, Connaught Circus
- Empire Book Depot, 278 Aliganj
- English Book Stores, 7-L, Connaught Circus P.O.B. 328
- Faqir Chand & Sons, 15-A, Khan Market
- Jain Book Agency, C-9, Prem House, Connaught Place
- Oxford Book & Stationery Co., Scindia House
- Ram Krishna & Sons (of Lahore) 16/B, Connaught Place
- Sikh Publishing House, 7-C, Connaught Place
- Suneja Book Centre, 24/90, Connaught Circus
- United Book Agency, 31, Municipal Market, Connaught Circus
- Jayana Book Depot, Chhaparwala Kuan, Karol Bagh
- Navayug Traders, Desh Bandhu Gupta Road, Dev Nagar
- Saraswati Book Depot, 15, Lady Harding Road
- The Secretary, Indian Met. Society, Lodi Road
- New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P. B. 96, Connaught Place
- Mehra Brothers, 50-G, Kalkaji
- Luxmi Book Stores, 42, Janpath (R)
- Hindi Book House, 82, Janpath (R)
- People Publishing House (P) Ltd., Rani Jhansi Road
- R. K. Publishers, 23, Beadon Pura, Karol Bagh (R)
- Sharma Bros., 17, New Market, Moti Nagar
- Aapki Dukan, 5/5777, Dev Nagar (R)
- Sarvodaya Service, 66A-1, Rohtak Road, P. B. 2521 (R)
- H. Chandson, P. B. No. 3034 (R)
- The Secretary, Federation of Association of Small Industry of India, 23-B/2, Rohtak Road (R)
- Standard Booksellers & Stationers, Palam Enclave (R)
- Lakshmi Book Depot, 57, Regarpura (R)
- Sant Ram Booksellers, 16, New Municipal Market Lody Colony (R)

PANJIM—
- Singhals Book House P.O.B. 70 Near the Church (R)
- Sagoon Gaydev Dhoud, Booksellers, 5-7 Rua, 3 Idc Jameria (R)

PATHANKOT—
- The Krishna Book Depot, Main Bazar (R)

List of Agents-*contd.*

PATIALA—
Superintendent, Bhupendra State Press
Jain & Co., 17, Shah Nashin Bazar

PATNA—
Superintendent, Government Printing (Bihar)
J. N. P. Agarwal & Co., Padri-Ki-Haveli Raghunath Bhawan
Luxmi Trading Co., Padri-Ki-Haveli
Moti Lal Banarsi Dass, Bankipore
Bengal Law House, Chowhatta (R)

PITHORAGARH—
Maniram Punetha & Sons (R)

PONDICHERRY—
M/s. Honesty Book House, 9 Rue Duplix (R)

POONA—
Deccan Book Stall, Deccan Gymkhana
Imperial Book Depot, 266, M. G. Road
International Book Service, Deccan Gymkhana
Raka Book Agency, Opp., Natu's Chawl, Near Appa Balwant Chowk
Utility Book Depot, 1339, Shivaji Nagar (R)

PUDUKOTTAI—
Shri P. N. Swaminathan Sivam & Co., East Main Road (R)

RAJKOT—
Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents

RANCHI—
Crown Book Depot, Upper Bazar
Pustak Mahal, Upper Bazar (R)

REWA—
Superintendent, Government State Emporium V. P.

ROURKELA—
The Rourkela Review (R)

SAHARANPUR—
Chandra Bharata Pustak Bhandar, Court Road (R)

SECUNDERABAD—
Hindustan Diary Publishers, Market Street

SILCHAR—
Shri Nishitto Sen Nazirpatti (R)

SIMLA—
Superintendent, Himachal Pradesh Government
Minerva Book Shop, The Mall
The New Book Depot, 79, The Mall

SINNAR—
Shri N. N. Jakhadi, Agent, Times of India, Sinnar (Nasik) (R)

Government of India Kitab Mahal, Janpath, Opp., India Coffee House, New Delhi
Government of India Book Depot, 8 Hastings Street, Calcutta
} For local sales

SHILLONG—
The Officer-in-Charge, Assam Government, B. D. Chapla Bookstall, P. B. No. 1 (R)

SONEPAT—
United Book Agency

SRINAGAR—
The Kashmir Bookshop, Residency Road

SURAT—
Shri Gajanan Pustakalaya, Tower Road

TIRUCHIRPALLI—
Kalpana Publishers, Wosiur
S. Krishnaswami & Co., 35, Subhash Chander Bose Road
Palamiappa Bros. (R)

TRIVANDRUM—
International Book Depot, Main Road
Reddear Press & Book Depot, P. B. No. 4 (R)

TUTICORIN—
Shri K. Thiagarajan, 10-C, French Chapal Road (R)

UDAIPUR—
Jagdish & Co., Inside Surajapole (R)
Book Centre, Maharana, Bhopal Consumers, Co-op. Society Ltd. (R)

UJJAIN—
Manek Chand Book Depot, Sati Gate (R)

VARANASI—
Students Friends & Co., Lanka (R)
Chowkhamba Sanskrit Series Office, Gopal Mandir Road, P. B. 8
Glob Book Centre (R)
Kohinoor Stores, University Road, Lanka
B.H.U. Book Depot (R)

VELLORE—
A. Venkatasubhan, Law Booksellers

VIJAYAWADA—
The Book & Review Centre, Eluru Road, Governpet (R)

VISAKHAPATNAM—
Gupta Brothers, Vizia Building
Book Centre, 11/97, Main Road
The Secy. Andhra University, General Co-op. Stores Ltd. (R)

VIZIANAGRAM—
Sarda & Co. (R)

WARDHA—
Swarajeya Bhandar, Bhorji Market

High Commissioner for India in London, India House, London, W. C. 2

List of Agents-*concld.*

Railway Book-stall holders

S/S. A. H. Wheeler & Co., 15, Elgin Road, Allahabad

Gahlot Bros., K. E. M. Road, Bikaner

Higginbothams & Co., Ltd., Mount Road, Madras

M. Gulab Singh & Sons, Private Ltd., Mathura Road, New Delhi

Foreign

S/S. Education Enterprise Private Ltd., Kathumandu (Nepal)

S/S. Aktie Bologat, C. E. Fritzes Kungl, Hovobokhandel, Fredsgation-2 Box 1656 Stockholm-16, (Sweden)

Reise-und Verkehrsverlag Stuttgart, Post 730, Gutenbergstra 21, Stuttgart No. 11245, Stuttgart den (Germany West)

Shri Iswar Subramanyam 452, Reversite Driv Apt. 6, New York, 27 N W Y

The Proprietor, Book Centre, Lakshmi Mansons, 49, The Mall, Lahore (Pakistan)

(On S & R Basis)

The Head Clerk, Govt. Book Depot, Ahmedabad

The Asstt. Director, Extension Centre, Kapileshwar Road, Belgaum

The Employment Officer, Employment Exchange, Dhar

The Asstt. Director, Footwear Extension Centre, Polo Ground No. 1, Jodhpur

The Officer I/C., Extension Centre, Club Road, Muzaffarpur

The Director, Indian Bureau of Mines, Govt. of India, Ministry of Mines & Fuel, Nagpur

The Asstt. Director, Industrial Extension Centre, Nadiad (Gujarat)

The Head Clerk, Photozincographic Press, 5, Finance Road, Poona

Government Printing & Stationery, Rajkot

The Officer I/C., Extension Centre, Industrial Estate, Kokar, Ranchi

The Director, S. I. S. I. Industrial Extension Centre, Udhna, Surat

The Registrar of Companies, Narayani Building, 27, Erabourne Road, Calcutta-1

The Registrar of Companies, Kerala, 50, Feet Road, Ernakulam

The Registrar of Companies, H. No. 3-5-83, Hyderguda, Hyderabad

Registrar of Companies, Assam, Manipur and Tripura, Shillong

Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi

The Registrar of Companies, Punjab and Himachal Pradesh, Link Road, Jullundur City

Registrar of Companies, Bihar, Jammal Road, Patna-1

Registrar of Companies, Raj, & Ajmer; Shri Kamta Prasad House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur

The Registrar of Companies, Andhra Bank Building, 6 Linghi Chetty Street, P. B. 1530, Madras

The Registrar of Companies, Mahatma Gandhi Road, West Cott. Bldg. P. B. 334, Kanpur

The Registrar of Companies, Everest 100, Marine Drive, Bombay

The Registrar of Companies, 162, Brigade Road, Bangalore

The Registrar of Companies, Gwalior

Asstt. Director, Extension Centre, Bhuli Road, Dhanbad

Registrar of Companies, Orissa, Cuttack Candhi, Cuttack

The Registrar of Companies, Gujarat State, Gujarat Samachar Building, Ahmedabad

Publication Division, Sales Depot, North Block, New Delhi

The Development Commissioner, Small Scale Industries, New Delhi

The Officer I/C., University Employment Bureau, Lucknow

Officer I/C., S. I. S. I. Extension Centre, Malda

Officer I/C., S. I. S. I. Extension Centre, Habra, Tabaluria, 24 Parganas

Officer I/C., S. I. S. I. Model Carpentry Workshop, Piyali Nagar, P. O. Burnipur

Officer I/C., S. I. S. I. Chrontanning Extension Centre, Tangra 33, North Topsia Road, Calcutta-46

Officer I/C., S.I.S.I. Extension Centre, (Footwear), Calcutta

Asstt. Director, Extension Centre, Hyderabad

Asstt. Director, Extension Centre, Krishna Distt. (A.P.)

Employment Officer, Employment Exchange, Jhabua

Dy. Director Incharge, S.I.S.I., C/o Chief Civil Admn. Goa, Panjim

The Registrar of Trade Unions, Kanpur

The Employment Officer, Employment Exchange, Gopal Bhavan, Mornia

The Officer I/C., State Information Centre, Hyderabad

The Registrar of Companies, Pondicherry

The Asstt. Director of Publicity and Information, Vidhana Saubha (P. B. 271) Banglore