
CHAPTER - ONE

CHAPTER I

THE ROLE AND IMPORTANCE OF AGRICULTURE IN INDIAN ECONOMY .

1.1 AGRICULTURE AND NATIONAL INCOME OF THE INDIAN ECONOMY :

The importance of agriculture in any particular country's economy could be assessed by the reference to its relative contribution to the national income in the economy. In developing countries agriculture occupies an important place in the sense that the other sectors of the economy are not in a position to take the place of agriculture in terms of increasing their relative shares in the national income. To bring out the significance of agricultural sector we quote the noted authorities which have studied the changes in the relative contribution made by agriculture to the national income prior to the independence and post independence period as well. However, official estimates of a national income and its components are available on a regular basis since 1948-49. Some of the noted individual scholar like Dadabhai Naoroji, Carron ,Vakil Muranjan estimated the share of agriculture in the national income around two thirds or 66 % between the

end of the 19th century and the first world war period. Another reliable estimate was made by Dr.V.K.R.V.Rao, according to which the proportion of agriculture in the total output underwent a change and was 57 per cent during the period, 1925-29 and 53 per cent for 1931-32. The ministry of commerce of the Government of India placed the contribution of agriculture at 44 per cent for the year 1945-46. The variations in the estimates as regards to the proportion of agricultural output during the pre-independence period was mainly due to differences in concepts, geographical coverage and methods of computation.

The most accurate and reliable estimates are made during the post independence period. For 1943-49 the official estimates placed the share of agriculture in the national income at 49 per cent in 1950-51. Its share in the Net Domestic Product was measured at about 56 per cent and during the following decade it remained above 50 per cent. By 1970-71 a further decline was recorded and reached to 45 per cent. This decline could be attributed to the unfavourable weather which was rather dominant during the latter sixties and early seventies. Despite the declining trend of agricultural sector's contribution in the total national income of the economy, it continues to be a predominant sector of the economy, it continues to and still contributes a relatively large share compared to other developed countries. For year to year fluctuations of the relative contribution made by agriculture to the national income see the Table No.1.1 on next page

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TABLE NO. 1.1

SHARE OF AGRICULTURE IN NATIONAL INCOME.

(At current prices)

YEAR	NATIONAL INCOME (Rs.Crores)	AGRICUTURAL INCOME (Rs.Crores)	AGRICULTURAL INCOME AS %OF TOTAL NATIONAL INCOME
1948-49	8,650	4,250	49.1
1950-51	9,530	4,890	51.3
1960-61	14,140	6,890	48.7
1970-71	34,368	15,740	45.7
1977-78	66,561	29,419	44.1
1980-81	1,05,536	38,629	36.6
1981-82	1,21,996	41,840	34.3
1982-83 P	1,34,073	43,189	32.2

(P : Provisional)

SOURCE : Statistical outline of India 1984.

Tata Services Limited P-17.

The Table 1.1 reveals the declining trend of the relative share over a period from 1948-49 to 1982-83 49.1 per cent to 32.2 per cent.

A glance at the above table may provide a room for one to be complacent regarding the growth of the national income and the fall off of the relative share of agriculture in the total output of the economy during the post-independence period. Through the relative contributions made by the rest of the economy's sectors namely industries and sources have increased over the period, the prosperity of the rest of the economy still seems to have been tied with the fortunes of the agricultural sector. No doubt we may take a declining share of agriculture in the total output of the economy as a sign of the economic development.

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1.2 AGRICULTURE AND EMPLOYMENT

Considering the proportion of the working force in agriculture and change thereof over a period the economy has not made any stride in respect of reducing the proportion of the active population in the agricultural sector. Agriculture defined in a wider sense (including livestock, forestry, fishing, hunting, plantation and orchards) directly or indirectly continues to be the main source of employment and consequently the livelihood for the majority of the population. Roughly dividing the Indian economy into agricultural and non agricultural The percentage distribution of workers by industrial categories works out to be 72.1 and 27.9, (1951), 71.8 and 28.2 (1961) and 72.1 and 27.9 (1971) and 70.6 and 29.4 (1981) ;² respectively . This percentage distribution of workers by industrial categories reveals that the dependence of the workers on agriculture did not change significantly over the two decades. (see table no.1.2). However, during the seventies and eighties the proportion of the active population declined to 66.50 per cent in 1981 and in the non agricultural sector it increased to 33.50 per cent. If we try to establish a rough relationship between the per capita income and the population dependent on agricultural income, the per capita income growth is far less than the non agricultural per capita income growth. The per capita income growth in both agricultural and non agricultural sectors have been worked out by Dr.V.M.Dandekar

2 . 1972 pocket book of information 25, New Delhi, Department of Economic Affairs ,Ministry of Finance Govt. of India.

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TABLE NO. 1.2

AGRICULTURE AND EMPLOYMENT

OCCUPATIONAL DISTRIBUTION OF WORKING POPULATION IN INDIA

(Percentage)

SECTOR & INDUSTRIAL CATEGORIES (1)	1951 (2)	1961 (3)	1971 (4)	1981 (5)
1) <u>Agricultural Sector</u>	<u>72.1</u>	<u>71.8</u>	<u>72.1</u>	<u>70.6</u>
a) Cultivator	50.0	52.8	83.4	42.1
b) Agri.labourers	19.7	16.7	26.3	26.3
c) Livestock, Forestry, Fishing etc.	2.4	2.3	2.4	2.2
2) <u>Industrial Sector</u>	<u>10.7</u>	<u>12.2</u>	<u>11.2</u>	<u>12.9</u>
a) Mining & quarrying	0.6	0.5	0.5	0.5
b) Large & small Industries	9.0	10.6	9.5	10.9
c) Construction	1.1	1.1	1.2	1.5
3) <u>Service Sector</u>	<u>17.2</u>	<u>16.0</u>	<u>16.7</u>	<u>16.5</u>
a) Trade & Commerce	5.2	4.0	5.6	5.8
b) Transport, Storage & Communications	1.5	1.6	2.4	2.5
c) Others	10.5	10.4	8.7	8.2
TOTAL .	100.0	100.0	100.0	100.0

SOURCES : 1) Indian pocket book of Economic Information
1972 and 73. p.27 .

2) Pocket book of Population Statistics, 1972, p.3.

3) Census Commission of India , Census of India,
1981. S , Part -II, P. 103.

DR. BALASARAN K. RAO
CHIVAJI UNIVERSITY, ANANTAPUR

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at 1970-71 prices.

In order to have a clear understanding and the extent of the disparity between the per capita income growth in both sectors we quote this table No.1.3

AGRICULTURAL AND NON AGRICULTURAL NET NATIONAL
PRODUCT AT 1970-71 CONSTANT PRICES.

PERIOD	AGRICULTURE	NON-AGRICULTURAL	NON.AGRI/AGRI.
1951-53	405.66	593.13	1.46
1954-58	421.95	677.34	1.61
1959-67	401.91	902.55	2.25
1968-75	398.83	1068.97	2.68
1976-83	415.61	1216.78	2.93

Source: Ep.W.Volume 21 Nos.38-39 Sept.20-27, 1986.

From this table one could notice that the per capita net income in the agricultural sector remained almost the same as before 30 years ago. In contrast with this the per capita net national income in the non-agricultural sector has almost then doubled.

During the last period 1976-83 the per capita natural income in the non-agricultural sector was nearly three times higher than that in the agricultural sector. During 33 years span, 1950-83, the net national agricultural output increased by 95.06 per cent. In other words the agricultural output has been increased by 2.1 per cent. This average growth rate is far from satisfactory as compared with the industrial output growth.

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The rather unsatisfactory growth rate of agricultural output achieved during the planned economic development period could be accounted for by incidence of drought occurred during mid 1960's and early 1970's. Owing to the occurrences of widespread droughts almost all over the country the growth rate of agricultural output had been limping. In the interest of the stable growth and in view of the growing rate of agricultural output, again to increase the per capita income of the agricultural population the measures will have to be directed to directed to reduce the proportion of working population depending on agriculture. The increasing proportion of the rural poverty in terms of per cent population below poverty line has increased on two accounts. (i) it is the inability of the non-agricultural sectors to absorb the growing labour force and (ii) the failure of the agricultural sector to achieve a high rate of growth with a rather high degree of stability over the part planned economic development period.

1.3 THE SHARE OF AGRICULTURE IN THE COUNTRY'S EXPORT & IMPORTS .

Agricultural products ,primary produce and manufactures based thereon still occupy an important place in the country's output trade. According to estimate made by Podual R.N. , agricultural commodities like raw cotton and jute , unmanufactured tobacco, oil seeds, spices ,tea and coffee , accounted for about 49 per cent of the total value of exports in 1938-39.³ Partition of the country reduced the agricultural

3.R.N.Podual,1952 ,Agricultural Commodities in India's Export trade Indian Journal of Agricultural economies. Vol.VIII ,pp.142-148.

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resources of the country and affected the exports of jute, cotton and hides. Even with the reduced resources contributed 41 per cent of total exports was in 1950-51. During the following two decades the diversification of India's exports received attention and as a result the share of agriculture tended to decline. However, the reliance on these agricultural commodities continued to be substantial. In the year 1973-74 the share of these commodities in the total exports was 38 per cent. In value terms the exports of agricultural commodity were Rs.963/- Crs. in 1973-74 compared with Rs.237 Crs. in 1950-51. While the value of exports of these commodities has gone up and an increasingly large share is accounted for by the processed commodities.

The relative share of agriculture in the total exports would be much more if the exports of agro based manufactures (Rs.879/-Crs.in 1973-74) were taken into account. If the manufactures based on a few agricultural commodities like cotton and jute are included it would be seen that the share of agricultural content of related manufactures and semi-manufactures was 70 per cent in 1950-51, 66 per cent in 1960-61, 50 per cent in 1970-71 and 54 per cent in 1973-74.

As against this the importance of agricultural products in the total import trade of the country is relatively less. For the year 1950-51, the share of these products in the total imports was 39 per cent. It was 28 per cent and 24 per cent in 1970-71 and 1973-74 respectively. If we take

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into account the agricultural requisites like fertilizers and machinery, the shares are respectively 40 per cent, 34 per cent and 31 per cent for the corresponding periods. Food -cereals and cereals proportions constituted the most important item among the agricultural products imported. However, much of it was on concessional terms and some as gifts in the early years of the imports of raw cotton and jute were rather substantial in the order to bridge the gap between demand and internal supplies which had declined as a result of their share in the total imports of agricultural products and requisites imported was 40 per cent in 1950-51. As the indigenous production of these commodities was augmented through plan efforts. Their imports came down substantially and formed just 18 per cent of total agricultural products and requisites imported in 1970-71 and to a quite insignificant proportion of 7 per cent in 1973-74. This reduction points out to the success achieved in the imports substituting agricultural products during the planned period. But unfortunately in respect of food grains imports there has been a spurt following in domestic production. In brief both through exports and imports substitution the agricultural sector has contributed to the earning and conservation of foreign exchange which was needed for capital formation during the development of economy.

1.4 AGRICULTURE AND PLANNING.

Prior to the planned economic development the

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agricultural sector in developing economies tends to be tradition bond and India cannot be an exception to this. In point of fact in the planned economic development process an attempt is being made to achieve a breakthrough in the tradition bond agriculture which necessarily implies the induction of scientific and modern technologies in the agricultural sector of the developing economies. In India agriculture is tradition bond, it remained stagnant over a long period of time and thus impoverished. For a large majority of the population it became a subsistence farming and a way of life but not an enterprise. The factors such as economic social and institutional as well as lack of administrative attention contributed to this state of affairs. During the post independence period certain plans to modernise the agricultural sector were formulated and put to during the successive five year plans. Despite the implementation of the various programmes to modernisation of agriculture, how the success was partial could be realised from the following extensive quotation. ,

"During the post independence period, although the agricultural sector received much more attention, over vast areas in the country, about 75 to 80 per cent crop production has continued to remain traditional in character. Conditions of static technology and cultural practices established over generations pervade the scene. The technology used is labour intensive and production is largely conditioned by the amount of labour the cultivator is in a position and is prepared to put in. Crop production is restricted to a few months in a year and is dependent on the vagaries of weather. A good proportion of inputs is farm product and the quantity of

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purchased inputs is small. The seeds used are locally produced, the use of chemical fertilizers is minimum while green and farm yard manures are used to the extent available. Cultivators lack knowledge about soil and water conservation and the land management practices are inefficient. Lack of knowledge and lack of capital have resulted in the inefficient use of production resources and in low yield. Poor use of cultural practices resulting in low yields have limited income and the capacity to invest, throwing the economy of the cultivator into a self perpetuating cycle of low investment and low returns. Inadequate marketing facilities conditioned the attitude of the farming community and the rate of growth of production." ⁴

Though the above quotation presents a rather dismal picture prevailing on the agricultural front, we review briefly the planned expenditure on the development of agriculture in the successive five year plans. In the first plan period 1951-56 emphasis was laid on the development of agriculture out of the total plan outlay, Rs. 1960 Crs., Rs. 724 Crs. were spent on agriculture. The expenditure on agriculture formed 37.0 per cent in the total actual outlay. Of this total outlay on agricultural sector Rs. 434 Crs. were spent on irrigation, which formed 22.2 per cent of the total actual outlay and the remaining amount that is Rs. 290 Crs. was spent on agriculture which include community development projects and national extension services. The actual expenditure exceeded the proposed outlay by 4.9 per cent points. The expenditure on irrigation exceeded the proposed irrigation outlay. This was commendable from the point of view of -----

4. Report of the National Commission on Agriculture.
Part. II - Policy and Strategy - pp. 9.10.

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of strengthening the base for further agricultural development and also supporting and complimenting the industrial development in the succeeding plans. In the second plan period the thrust for the development of agriculture did not continue. There was a drastic reduction in the proposed outlay during the second five year plan. The proportion of the agricultural development expenditure was reduced to 21.9 per cent in the total plan outlay. During the second five year plan there was a change in the strategy of development, which shifted emphasis from agriculture to rapid industrialisation. Some of the economists objected to this change in the strategy and reaffirmed their faith in the supplementary and complementarity of both the sectors agriculture and industries. The interdependence between the two was optly brought out by them which was as follows ..

"Structural relationships between agriculture and the rest of the economy are likely to be such that if one sector limits the growth of the other it is more likely to be a case of agricultural growth limiting non-agricultural than vice versa. It is therefore expected that in the initial stages of economic development it is the agricultural sector that is expected to trigger off development in the secondary and tertiary sectors of the declining economy. After reacting a certain stage of economic development a need for concurrent growth in the agricultural and non-agricultural sector arises. The economy needs both an agricultural and industrial base, these are not in conflict but really complementary and beyond a certain initial stage of development the growth of one conditions and facilitates the growth of other." ⁵

5. Panel of economists , Planning Commission ,

"Basic constructions relating to plan frame," papers

(contd. on P.1.13)

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At the official level it was claimed that there was a shift in the strategy and the agriculture would receive the top most priority among the various development programmes. This claim could be justified only on the untenable basis of a slight increase by 1 per cent point (23 per cent) over the provisional period's percentage (21.9 per cent) of expenditure on agriculture in the total plan outlay of the Third Five Year Plan. If we look at the actual expenditure there was a reduction in the percentages of expenditure in agriculture and irrigation which aggregated to 20.5 per cent in the actual plan outlay. By the end of the third plan the additional area to be benefitted by major and medium irrigation was targeted at 2.5 million hectares. However the actual achievement fell short and the additional area to be benefitted worked out to be 2.2 million hectares. Only in respect of minor irrigation the targeted and actual figures are just equal at 5.2 and 5.21 million hectares. The last year of third plan and the subsequent annual plan year 1966-67 experienced a severe drought, the spread of which was almost all over the country. During the subsequent three annual plans the proportion of agricultural expenditure remained almost unchanged, the proposed and actual

Contd. from P.1.12 .

relating to the formulations of the S.F.Y. Plan.

P-37, quoted in an unpublished thesis. ,

"Economies development and changing agricultural production pattern with special reference to Satara, Sangli & Kolhapur districts (S.S.K. Region) from 1950-51 to 1976-77" submitted to the University of Poona by T.G. Naik, June 1982.

1.14 expenditure being 21.94 and 23.94 per cent respectively .The latter exceeded the previous periods (third plan) figure. In the succeeding plans almost the same percentages for proposed and actual expenditure in the total plan outlays with a minor variations of one or two per cent, one can easily notice . Since the second plan, the proportion of expenditures on agriculture did not exceed 25 per cent of the total plan outlay even though the agricultural sector continued to be a dominant sector in terms of its contribution to national income employment and to some extent export trade too. For the absolute figures of expenditures and their respective percentages figures see the Table No.1.4 .

In the sixth and seventh plan period a large number of the expenditure heads and sub heads have been included under the general head of agricultural development expenditure . Still the agricultural outlay can not exceed even 25 per cent of the total development expenditure. The only change, the planning commission seems to have made is that the items such as agricultural research and education ,crop husbandry, soil and water conservation , animal husbandry and dairy etc. and in the rural development programme IRDP, NREP ,RLEGP, Land reforms and integrated rural energy plan, and irrigation major medium and minor irrigation, CAD flood control, including anti-sea erosion most of which are just an old wine in new bottle. For break up of total expenditure during the 7th plan see Table No. 1.5 .

TABLE NO. 1.4

PATTERN OF OUTLAY ON AGRICULTURE IN THE PLANS .

Plan	Total Plan outlay	Outlay on agriculture & irrigation	Percentage of of total outlay
1	1	2	3=(1/2x100)
First Plan	1,960	600	31
Second Plan	4,600	950	20
Third Plan	8,577	1,745	20
Annual Plans	6,757	1,624	24
Fourth Plan	16,160	3,300	21
Fifth Plan	39,300	8,080	21
Sixth Plan (1980-85)	97,500	24,700	25
Seventh Plan (1985-90)	1,80,000	39,770	22

Source : Various Five Year Plans.

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TABLE NO. 1.5

SECTORWISE (AGRICULTURE, RURAL DEVELOPMENT & IRRIGATION)

ALLOCATION FOR THE VII PLAN (1985-90)

HEADS OF DEVELOPMENT

OUTLAY
(Rs. in Crores)

1) AGRICULTURE :	10573.62
a) Agricultural research & education	704.60
b) Crop Husbandry	3311.80
c) Soil and water conservation	740.39
d) Animal Husbandry and dairying	1076.68
e) Fisheries	499.19
f) Forestry and wild life	1859.10
g) Management of Natural Distress	21.10
h) Agricultural Marketing & Rural Godowns.	149.44
i) Food Storage and Ware Housing food processing	307.08
j) Investment in Agricultural financial institution.	356.66
k) Co-opetation	1400.58
l) Plantation	150.00
2) RURAL DEVELOPMENT	9074.00
a) I.R.D.P.	3473.99
b) N.R.E.P.	2487.47
c) R.L.E.G.S.	1743.78
d) Land Reforms	395.83
e) Integrated Rural Energy plan	47.76
3) IRRIGATION AND FLOOD	16978.65
a) Major & Medium irrigation project	11555.56
b) Minor irrigation	2801.99
c) C.A.D.	1670.71
d) Flood Control including Anti sea erosion	947.39

Source : H.Laxminarayan , Programme for Agricultural Development
in the 7 the Five Year Plan. The Indian Economic
Journal Vol. 33 , April -June 1986 , No.4 , pp.22.

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1.5 PLANNING AND AGRICULTURAL OUTPUT

During the different plan periods the targets for foodgrain output were laid down by the planning commission. For the first two five year plans 1951-61 the actual achievements in respect of foodgrains output exceeded the targets. In the third plan period the achievement fell short of the target. Thus the growth of foodgrains output achieved during preceding plans broke down. This was mainly due to successive occurrence of drought all over the country, from 1949-50 (Index Number = 100) the aggregate index of agricultural production moved to 159.4 in 1964-65, about 12 per cent higher than in 1960-61. Between 1949-50 and 1968-69 the aggregate agricultural production rose at 2.92 per cent per annum of which foodgrains at 2.79 per cent and the non foodgrains crops 3.18 per cent.⁶ During the fourth five year plan (1969-74) too, the actual foodgrains output did not fulfill target of 129.0 million tonnes, owing to the occurrence of drought. During the fifth five year plan period the target and achievement in respect of foodgrains output corresponded rather closely. The achievement of foodgrains output during the sixth plan period was far in excess of the targeted figure. The ongoing seventh five year plan has fixed the target of foodgrains production at 175 million tonnes owing to the occurrence of two drought years successively (1986-88) the targeted output could not be achieved.

6 . Source Fourth Five Year Plan 1969-74 , Planning Commission
GOI , pp. 116-117.

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During the last agricultural year (1987-88) figure is expected to be around 133 to 134 million tonnes against 144 million tonnes in the preceding year (1986-87). For 1988-89 the target has been fixed at 166 million tonnes by the agricultural secretary, the Govt. of India.⁷ Over a long period of time the foodgrains output has been increasing by 2.5 per cent. The growth rate of population also works out to be at 2.3 per cent, looking at these growth rates achieved during the post independence period one cannot imagine a divergence between the two and as such one can easily rule out the existence of undernourishment and also conditions resembling to near starvation in the rural area, looking at the year to year production the agricultural production has been subjected to severe fluctuations caused by vagaries of the monsoon or more specifically by the failure of the monsoon rains. A larger dependence on rain fall has made the agriculture unstable and with the introduction of high yielding varieties of seeds, the instability of agricultural output has increased in the recent past.

1.6 INDIAN AGRICULTURE AND DROUGHTS .

The point of instability in the agricultural output growth would be substantiated by quoting a well-known authority S.R.Sen's study of the fluctuations in foodgrain output in India from 1901 to 1966.

7. The Times of India , Section 2, Bombay , Wednesday , April 6, 1988,

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"There is a marked difference in the situation obtaining in 1951-52 to 1965-66 and that obtaining in the two early periods. The growth between 1900-01 and 1923-24, was very slow and it occurred mainly due to extension of area. Droughts were very frequent and severe and had a relatively greater impact on marginal land. Between 1924-25 and 1950-51 there was a general stagnancy on production, drought were relatively less frequent and less severe and the extension of irrigation in certain areas of the country was also having a somewhat stabilising effect. There was hardly any increase in the use of inputs like fertilizers. There was no doubt an approvable increase in irrigation also, but it was neither sufficient in volume nor utilised with sufficient care and economy so as to compensate for the destabilising effect of the two factors, so when a widespread and severe drought struck the country in 1965, there was a sharp decline of as much as 17 million tonnes in foodgrain production an order of decline which the country had not seen for over forty years " ⁸

After having realised the severity and instability in agricultural output in terms of year to year fluctuations the irrigation commission was appointed in the year 1972 which identified certain areas which could be considered as vulnerable to drought. The table on next page reveals the extent of the drought prone area statewide all over the country.

8. Source; S.R.Sen, "Growth and Instability in Indian Agriculture," address to the 20th Annual Conference of the Indian Society of Agricultural Statistics, Jan. 1967.

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TABLE NO. 1.6

STATE	NO.OF DISTRICTS	NO.OF TAHSILS/ TALUKAS	GEOGRAPHI CAL AREAS 000 HECTARES	POPULATION 000 PERSONS IN 1961.
A.P.	7	60	9,700	9,410
Gujrat	11	60	7,070	5,480
Haryana	3	4	810	1,490
M.P.	9	24	4,090	3,070
Maharashtra	9	45	6,250	6,930
Karnataka	12	88	10,350	11,580
Rajasthan	9	19	7,480	2,760
Tamilnadu	7	24	3,930	7,360
TOTAL	67	324	49,730	48,080

Owing to a limited scope of our study instead of commenting on the problem of drought prone areas all over the country, we take into account the drought prone areas as identified by the irrigation commissions in the state of Maharashtra. In terms of districts, talukas, geographical area and also population Maharashtra ranks fifth. It has 9 districts and 45 talukas having 6,250 mn hectares and 6,930 mn population subject to drought caused mainly by scanty rainfall. For details of the district and the talukas see the Table No.1.7 on the next page.

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TABLE NO. 1.7

Districts and talukas identified as drought affected .

Sr.No.	DISTRICTS	TALUKAS
1	Ahmadnagar	Ahmadnagar, Jamkhed , Karjat, Parner, Pathardi, Sangamner , Shrigonda.
2	Aurangabad	Gangapur , Vaijapur.
3	Bhir	Ashti , Bhir , Georai , Patoda .
4	Nasik	Baglan , Chandor , Kalman , Malegaon , Nandgaon , Niphad , Sinnar , Yeola.
5	Osmanabad	Bhum , Kallam , Osmanabad , Paranda.
6	Pune	Dhond , Haveli , Indapur , Purandhar , Sirpur.
7	Sangli	Jath , Khanapur.
8	Satara	Khandala , Khataw , Man .
9	Solapur	Akkalkot , Barsi , Karmala , Mangalwedha, Mohol , Madha , N.Solapur, Pandharpur, Sangola , S.Solapur.

Source : Ministry of Irrigation and Power .Reportt of
Irrigation Commission 1972, Vol.II p.457.

45 talukas in 9 districts identified by the irrigation commission ,are mainly located in rain shadow belt, as chronical drought affected. These areas taken together account for one fourth (1/4) of the total area of the state and 60 per cent of its population.

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According to the fact finding committee for the survey of scarcity areas under the chairmanship of Shri.S.E.Sukhatnakar has identified in all 83 talukas in 12 districts as a drought prone areas which together account for 35 per cent of total area of the state and 30 per cent of its population. The committee includes the entire district of Solapur and Ahmadnagar .Besides ,the government of Maharashtra has also declared some part of Nasik and Igatpuri talukas in Nasik district, Haveli taluka in Pune district and Ahmadpur taluka in Osmanabad district as drought prone areas.

From the above sources one may notice that there is a divergence as to extent of the drought affected areas in Maharashtra. The fact finding committee and the government of Maharashtra estimates of drought affected areas far exceed than that of the irrigation commission(1972). Despite these divergences the agricultural production in Maharashtra has not been free from violent year to year fluctuations caused by uncertain and unstable rainfall conditions. Instability in Maharashtra's agricultural production has been the result of instability of yield of major agricultural crops caused by scanty rains and also by its temporal and spetial uneven distribution. And this is why Maharashtra has to depend upon the imports of food grains and oilseeds and pulses from neighbouring states. Even incidental the -sugar being supposed to be kingpin of Maharashtra's economy for adequate supplies of sugarcane ,sugar co-operatives located on borders have

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to import sugarcane from other states like Karnataka. If one looks at the overall situation in respect of both food crops and non food crops the growth of their output seems to have been limping over the period beginning with the plan economic development. So broadly we say the main cause in the steady path of agricultural output growth in Maharashtra has been (i) greater incidence of droughts and (ii) inadequate development of irrigation potential. (at present only 12 per cent of the total cultivated area is under irrigation, the rest is exposed to the vagaries of the monsoon.) The problem of drought prone areas all over the Maharashtra being quite larger in time, space and population affected dimension, it is beyond the capacity of an individual researcher to probe into it. Therefore, we have selected one of the district of Maharashtra i.e. Solapur whose entire geographical area has been identified as a drought prone area. In the rest of the study therefore we devote to critical analysis of the behaviour of agricultural output in the district and also the measures adopted by the government of Maharashtra to free the district from the ravages of the drought. Broadly the assesment of the economic resources, the irrigation facilities in existence, potentialities of irrigation and others having close bearing on the problem of the drought prone areas will be studied alongwith the main theme of agricultural output and changes therein, in the present research.