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DOCUMENTATION

In this section on DOCUMENTATION, it is proposed to print summaries of reports of ad hoc committees, set up by the Central or State Governments, relating to agriculture, forestry and fishery economy of the Indian Union as well as the individual States. Obviously, this section will appear only when such reports are summarised. Readers are requested to bring to the notice of the Editor such reports, as and when they become available.

Towards Full Employment in Rajasthan: Report of the Advisory Committee on Employment

[This is a specially prepared summary of the report of the Advisory Committee on Employment, set up by the Government of Rajasthan in October 1990, under the Chairmanship of Prof. V.S. Vyas. The Committee submitted its report in December 1991. - N.R.]

THE CONTEXT OF RAJASTHAN

Rajasthan's economy is characterised by slow growth rate, widening gap between State and National per capita income - partly caused by rapidly increasing population - hostile physical environment, frequent visitations of drought and famine, inadequate infrastructure and low productivity in many sectors. On the positive side, the state has rich human and entrepreneurial resources, important mineral resources, and comparative advantages in some agricultural and animal husbandry products. In spite of genuine efforts on the part of the state, Rajasthan continues to be in the bottom quartile in terms of the major indicators of development such as literacy, infant mortality, life expectancy and per capita income.

The plan strategy so far followed has been basically three pronged: (i) to augment the water resources, (ii) to spread infrastructural facilities throughout the state, and (iii) emphasise on human resource development, mainly through the spread of formal and informal education. However, at the field level this strategy has not yielded the desired results. The number of unemployed has increased and the rates of open unemployment are also higher than what they were in the early eighties. The second disconcerting aspect of the employment situation in the state is widespread under-employment or disguised unemployment. We have deliberately not touched upon the low productivity aspect of the employed.

Population

Rajasthan's population has been increasing at a rate higher than that of the country as a whole since 1931, though the growth rate declined in the last decade ending 1991. (i) The population growth rate was 28.07 per cent between 1981-1991. Only five of the 27 districts registered a higher growth rate than in the previous decade. (ii) The sex ratio was 913 females per 1000 males, lower than the all-India ratio of 929. (iii) The growth in urbanisation was significantly higher (at 58.69 per cent) than 44.45 per cent for all-India during 1971-81. (iv) The literacy level of 38.81 per cent in the state is the lowest amongst the states except Bihar.

Participation Rates

According to the 43rd Round of the National Sample Survey (NSS), in 1987-88 there

were 51.2 male and 45 female workers in rural Rajasthan and 47.1 male and 19.1 female workers in urban Rajasthan per 100 persons in each category. The unemployed were 1.9 and 1.3 and 2.4 and 0.9 respectively. The worker participation rate was higher in Rajasthan than all-India for females.

The estimated labour force, i.e., the employed plus the unemployed, in 1987-88 was 15.1 million rural and 3.5 million urban (total 18.7 million) or 10.8 million males and 7.9 million females. Of these, the numbers unemployed were estimated at 3.1 lakhs of which one lakh were women.

The Census of 1981 showed the worker participation rates in Rajasthan to be 52.17 males and 24.98 females in rural and 46.22 males and 5.88 females in urban areas per 100 persons in each category. The rates are much lower for females than in the NSS. The NSS rates are regarded not only as more reliable but also as conceptually more valid.

A disturbing fact revealed by the Census data was the fairly large number of children below 14 years of age in the work force: 6.04 male and 3.26 female children in rural and 2.08 male and 0.49 female children in urban Rajasthan among 100 children in each category.

STRUCTURE OF EMPLOYMENT

Sectoral Division of Work Force

Agriculture provides the main source of work to labour. A reduction in the share of the primary activity sectors is expected with development. This process is operating in the state, although very slowly, as is evident from the decline in the agricultural sector from 76.79 per cent in 1971 to 71.99 per cent in 1981. More recent data of the NSS 43rd Round show a further decline.

A striking feature of the distribution of the work force in 1987-88 is the sharp increase in the share of the construction sector, etc. While some of this may actually reflect positive changes in the economy, most of the increase appears to be the result of the massive relief works during the century's worst drought in 1987-88. In other words, notwithstanding the striking changes reflected in the distribution of the work force in 1987-88, the overall conclusion is of a slow moving economy lacking dynamism necessary for structural transformation.

Self-Employment and Wage Employment

The distribution of the employed by activity status, viz., self-employed, salaried employment and casual wage employment shows a sharp decline in the share of the self-employed category since 1977-78 both for males and for females in rural as well as urban areas. The decline is compensated by a sharp increase in casual wage employment in rural areas (from 11.45 per cent in 1983 to 20.90 per cent in 1987-88) and of salaried employment in the urban areas (from 26.68 per cent in 1983 to 32.80 per cent in 1987-88) although compared to 1977 the change in the share of the salaried employees in urban areas is much less dramatic. In urban areas the proportion of salaried employees recorded a fall in 1983 over 1977-78 but again shot up in 1987-88.

Some of this trend is the result of the drought of 1987-88. Nevertheless, there is no getting away from the trend towards increasing casualisation of the work force in recent

years. This trend is more pronounced for males particularly in rural areas. This is an indication of the growing stress in the labour market particularly for the most vulnerable sections of the labour force - those who have to depend on uncertain and inadequate daily wage employment at low wages.

In 1987-88, 3.9 per cent of rural households and 9.4 per cent of urban households did not have a single working member. The share of households with only one female working member was 6.1 per cent in rural areas and 3.3 per cent in urban areas. These two categories of households are likely to be those requiring particular attention in employment and poverty alleviation programmes.*

Employment in Factories and Mines

The increase in employment in the factory sector during the 1980s was at a satisfactory rate of approximately 6 per cent per year. Khadi and village industries (KVI) provided employment to 1.98 lakh persons in 1981-82 compared to 1.7 lakhs in factory industry. This number increased to 4.75 lakhs in 1989-90 compared to 2.31 lakhs in factory industry, indicating a substantial growth in employment opportunities in this (KVI) sector.

Increase in the employment in the mining sector, which is an important activity in the state, was rather disappointing (from 1.43 lakhs in 1981 to 1.87 lakhs in 1989).

Employment in Organised Private and Public Sectors

The total employment in the non-agricultural organised sector increased from 6.65 lakhs in 1973 to 11.24 lakhs in 1989. A large part of this employment is in the government and quasi-government sectors which accounted for 80 per cent of the total employment in the organised sector. The employment in the private organised sector increased from 1.22 lakhs in 1973 to 2.25 lakhs in 1989.

Nearly half (49.4 per cent in 1989) of the public sector employees were employees of the state government. Including quasi-government employees, i.e., of the state government's public undertakings, etc., it came to 60 per cent. More than 92 per cent of the state government employees were non-gazetted. More than 80 per cent were permanent employees.

Employees of the department of education alone accounted for over 42 per cent of all state government employees. The five departments, education, police, medical and family welfare, revenue, and building and roads, accounted for more than 80 per cent of the state government employees.

Unemployment

The total backlog of unemployed, estimated on the basis of usual status rate of the 43rd Round of the NSS, in 1987, for males and females, rural and urban together, was 3 lakhs. However, there were 9.12 lakh persons registered for employment in the employment exchanges in the state in 1989. This number was only 3.62 lakhs in 1980, indicating a rapid

* Surely, these two categories cannot be helped with employment programmes, but by some form of social welfare measure! [N.R.]

rise. While all these registered persons are not necessarily unemployed, the data indicate a worsening of the situation over the years. The NSS 38th Round data (state sample) show higher unemployment rate in the tribal areas and lower rate in the desert regions.

The employment exchange data show that the number of the educated persons seeking employment increased much faster than the total number of employment seekers during 1980-89. The rate of increase was even higher amongst post-graduates and graduates. Engineers and doctors were also registered in the employment exchanges.

Under-employment

Under-employment rather than open unemployment is a characteristic feature of the employment situation particularly in rural areas. The person-day based unemployment rate of persons usually employed, as per NSS 1987-88, was 4.0 per cent for rural males and 2.9 per cent for rural females and 3.7 per cent for all urban workers. Besides, larger percentages reported availability for additional work.

An alternative method of estimating rural under-employment in agriculture was: (i) assuming 80 per cent of rural work force was in agriculture; (ii) the worker was available for work for 240 days in the year; (iii) half the total man-days was available in the *kharif* and the other half in the *rabi* season; and (iv) using the average agricultural work in each season on each crop during the three years, 1986-89, as well as the average area under each crop during this period, the total labour day use in agriculture in each season was estimated. This shows that in the mid-year 1987-88, out of the 99 crore man-days available for work in each of the two seasons, only 52 crore man-days were used in the *kharif* and 36 crore man-days in the *rabi* season in agriculture, leaving the rest as unemployed time in each season. While this method is only a tentative one, it underlines the seriousness of the employment situation in rural Rajasthan.

Districtwise estimates show that all but Ganganagar had unemployed labour; Ganganagar's greater use than availability explained the seasonal migration of labour to this district.

EMPLOYMENT PROJECTIONS

Growth Rate of Employment in 1980s

According to the NSS, over a period of fifteen years covering 1972-73 to 1987-88, employment in Rajasthan is estimated to have grown at the rate of 2.09 per cent per annum which is slightly lower than the all-India rate of 2.21 per cent per annum. This rate is also lower than the rate of growth of labour force during the decade 1971-81 as revealed by the population growth rate. However, growth rates of employment for males had been consistently higher in Rajasthan than the national average. In respect of females there was an erratic trend.

There had been a negative growth in employment in agriculture (accounting for nearly two-thirds of the total employment in 1987-88) during the decennium 1977-78 to 1987-88. It may be pointed out that 1987-88 witnessed the worst famine of the century and possibly this could be a reason for negative growth in agricultural employment. Apparently, there was a shift from agriculture to other sectors, notably construction which recorded an impressive growth of 18.20 per cent in 1987-88 over 1977-78. In electricity, gas and water

supply, transport, storage and communication, and mining sectors, the growth rate of employment was around 8 per cent. The manufacturing and service sectors lagged far behind, with a growth rate of about 5 per cent only, whereas in a developing economy better performance was expected from these sectors. It is quite clear that in Rajasthan while the employment in agriculture was declining, growth in non-agricultural employment was not fast enough to compensate for this decline.

Labour Force Projections

Calculations based on the growth rate of population in the state during 1981-91, extended till 2000 A.D., and the age composition of the population in 1981, show that there will be an addition to the labour force, in the age group 15-59 years, of about 44 lakhs, during the decade 1990-2000. In addition to this, there was a backlog of 4.8 lakhs of unemployed (calculated by an alternative method which is not explained) in 1990, giving a total of 48.8 lakhs to be provided with employment by 2000 A.D. This implies that employment in the state must grow at least at the rate of 2.5 per cent a year. This is a minimum rate, since it does not take into account child labour and growth in landlessness over the years.

SPECIAL ISSUES

Educated Unemployed

The problem of educated unemployment is likely to assume serious proportions with the out-turn of large number of graduates and post-graduates from the colleges and universities. The Directorate of Manpower Planning has estimated an addition of 6 lakh graduates and post-graduates during 1990-2000 to the present number of job seekers in this class in the state.

The additional number of technical personnel, i.e., engineering degree and diploma holders, ITI certificate holders, doctors, *vaidyas*, and graduates and post-graduates in agriculture, is also likely to increase considerably. The estimate of demand for these personnel in the present types of avenues would leave the bulk unemployed. If this situation reflects the degree and diploma holders' desire to work only in a certain environment, no amount of macro planning can help.

Unemployment rate among women is increasing, particularly in urban area. While maternity benefits are available for female workers in the organised sector, few work in it. On the other hand, in the unorganised sector, the infants of female day-labourers often have little help. Its effect on child health is relatively unexplored. While the policy is equal pay for equal work, women with equal qualifications earn on an average less than men, mainly because they find work in only one or two occupations like teaching and nursing. Similarly, technological change in mines and agriculture is resulting in displacement of women. This too needs attention, particularly if the family size is to be brought down in the coming years.

BASIC APPROACH

While making its final recommendations the Committee has taken into account not only these findings, but also has kept at the forefront the basic approach which the policy makers may adopt while tackling this serious issue. The main ingredients of this approach are:

i) Employment should be a by-product of growth; any effort to 'create' jobs without considerations of economic viability will be counter productive.
ii) The government itself cannot provide additional employment to a large number of people; it should create infrastructure and adopt policy packages which would help generation of employment by people's own initiative.
iii) While keeping these considerations in view, the goal of employment creation should be given high priority in any evaluation of the schemes, in the private as well as in the public sector.
iv) Special attention should be paid to the poorer regions of the state in general and the tribal parts in particular.
v) The problem of under-employment should receive as much attention as the problem of unemployment.
vi) Education and training, particularly at the higher level, should make the trainees 'employable' rather than detracting from their capacity to do any socially productive work.
vii) While our basic aim is to provide employment to all those who are willing and able to work, an equally important objective is to enhance productivity of the employed as well as the under-employed.

In this part of the report we have tried to dwell on most of these aspects, except the last two which require special studies. Even while dealing with the remaining aspects the Committee was handicapped because comprehensive data were not readily available. Our discussion is based on scanty data and incomplete information and at many places we had to exercise our own judgement.

MACRO DIMENSIONS

As was pointed out in Part I of this report, a growth rate in employment to the tune of 2.5 per cent per annum is required to ensure full employment in Rajasthan by the year 2000. In the decade of 1980s the growth rate in state domestic product (SDP) was approximately 6.5 per cent per annum and the rate of growth in employment was 2.1 per cent per annum. As is well known, high growth rate of SDP in the 1980s was partly due to 2 or 3 extremely successful agricultural years. The long-term growth rate of SDP (for the period 1970-71 to 1987-88) is approximately 3.6 per cent per annum. This growth rate will have to be lifted to at least 5.5 per cent, i.e., more or less equal to that targeted for the country as a whole in the Eighth Plan and to 6 per cent during the Ninth Plan. As suggested earlier, the rate of growth in employment will have to be augmented from 2.1 per cent per year in the 1980s to 2.5 per cent per annum in the 1990s.

This scenario has serious implications for planning in the state:

i) In the 1990s the state will face more serious resource constraint compared to the 1980s as the rate of growth in the 1990s is likely to be slower than in the 1980s.
ii) There will be greater urgency to use the available resources more judiciously for employment generation as the rate of employment generation will have to be lifted from 2.1 per cent per annum to 2.5 per cent per annum.

It is in this context that the need for structural shifts in the economy and cost effective employment generation policies become important.

PROGRAMMES FOR EMPLOYMENT GENERATION

Keeping in view the pre-condition of *productive employment*, the Committee has examined the scope for expansion in different sectors and activities.

Agriculture, narrowly interpreted as crop-raising, has limited scope for increasing employment in the state. In the following paragraphs we examine three major avenues for employment expansion in the crop-raising sector; (i) area expansion, (ii) multiple cropping, and (iii) shift to more labour intensive crops.

Area Expansion: The limit of area expansion has been reached in Rajasthan. There is no likelihood of any addition to culturable area in the state.

The only exception is the possibility of further extending cultivation in the Command Area of the Indira Gandhi Canal. At present the most important irrigation project under operation in the state is the Indira Gandhi Nahar Pariyojana (IGNP) Stage II - Command Area Development Project. The total Culturable Command Area (CCA) of IGNP Stage II is 10.1 lakh hectares out of which about one lakh hectares had been covered by the end of the Seventh Plan under lined water courses. About three lakh hectares may be covered by the end of 1995 and another four lakh by 2000, thus making a total of about seven lakh hectares during the decade of the 1990s.

It is estimated that cultivating one *murraba* (about six hectares) of land in IGNP Command Area would create job opportunities for two persons round the year as per the norms adopted for the Command Area Development Authority. If these targets are achieved, direct job opportunities of the order of two lakh person-years would be created over a decade in the crop-raising sector. The settlers in the IGNP are generally unfamiliar with irrigated agriculture and extensive training has to be imparted to them.

Multiple Cropping: With the likely extension of irrigation on nearly 10 lakh hectares (over and above the increase in CCA of IGNP) by the extension of groundwater irrigation, as well as with minor and medium irrigation projects, the index of multiple cropping may increase to a limited extent and an additional employment of one lakh man-years could be possible.

High Value Labour Intensive Crops: There is also a third avenue which promises more direct employment as well as employment expansion through backward and forward linkages, i.e., the expansion of area under high value labour intensive crops. On an average each worker engaged in agriculture worked for 108 days in a year. For the Eighth Plan if the targets fixed for each crop are realised, an average agricultural worker would be employed for 113 days in a year. The additional man-days generated per year would thus be 330 lakh man-days (8,109 minus 7,779) per annum or approximately one lakh man-years. As no increase in area is proposed thereafter, no additional employment would be expected from this source.

The possibility of raising this figure of one lakh man-years exists by progressive introduction of high value crops which generally, though not always, are also labour intensive crops. Fruits, vegetables and flowers are good examples of high value/high employment crops.

Nearly 1,873 lakh man-days would be generated by the year 1999-2000. Besides, 3.25 lakh man-days would be generated due to 40 lakh grafted and 15 lakh budded fruit saplings

in the departmental nurseries by the same year.

To conclude, we would not expect gainful absorption of the *additional* rural work force in the agricultural (crop-raising) sector to a significant extent. We may create additional job opportunities for approximately 2 lakh persons in the newly developed culturable command areas, around a lakh of jobs through the extension of multiple cropping, but nearly 5 to 6 lakh jobs can be created with the expansion of area under higher value labour intensive crops. All these and other measures of increasing productivity in the crop-raising sector will have additional, and major, impact on reducing under-employment in agriculture, which, as we have shown earlier, is a major problem facing the rural population.

Animal Husbandry: The livestock population in the state increased by 20 per cent during 1977-83. Based on long-term trend, the livestock population is expected to go up to 618 lakhs by the year 2000.

Even to maintain the current tempo of development, investment and efforts in breed improvement, increase in fodder production, conservation and management of pasture land, encouragement to silvi-pasture and production of improved variety of fodder seeds on large scale are called for. It is estimated that the proposed 17 chilling plant units with an investment of Rs. 870 lakhs would generate employment for approximately 2,500 persons.

Rajasthan has a potential for establishing at least 23 tanneries, each with a capacity of 200 hides a day and employing 200 persons, creating thereby work opportunities for about 4,600 persons on a regular basis. There is also scope for about 17 leather shoe manufacturing units and 15 units for other leather goods. The total employment in tanneries, slaughter houses, leather shoes and other leather goods would be 4,600, 770, 615 and 270 persons respectively, i.e., over 6,200 persons.

Wool: The state has several lakh persons involved, directly and indirectly, in sheep farming and subsidiary occupations like wool shearing, scouring, grading, sale of skin, hides, bones, weaving of carpets. The average wool production in the state is about 160 lakh kgs. The medium and medium fine quality accounts for 75 per cent of total wool production and is used for carpet manufacture. However, of late due to imports of large quantities of carpet wool from New Zealand, the price of indigenous wool is depressed. At the same time the average production of indigenous sheep per annum is quite low in comparison to Australia and New Zealand due to inferior genetic quality and low level of feeding. The main issues, therefore, are: wool productivity improvement both quantitatively as well as qualitatively, and creation of processing capacity for employment generation and value addition.

Despite the fact that 40 per cent of the country's wool is produced in the state, there is very little processing done in the state. Most of the wool is reported to be good for manufacturing of carpets and is exported to Uttar Pradesh for the purpose. The local carpet industry, although has a market of its own, is not able to absorb the entire production. Besides, shortage of skilled manpower for carpet making is also felt. The wool traders virtually control the entire trade since the state sponsored Sheep and Wool Marketing Federation has not made a significant dent in the marketing of wool.

Three units in the public sector for processing of wool were established at Churu, Ladanu and Bikaner and have since been closed. This has given a setback to the development of wool processing industry in the state. A detailed diagnostic study to ascertain the reasons

for the failure of these units appears to be necessary to remove the impediments in the development of wool processing industry. However, in spite of the failure of these wool processing units, there is lot of scope for establishment of wool processing units in the state for absorption of the labour force.

Twelve semi-worsted spinning mills, each with a capacity of 600 spindles and employing 350 persons, could be located. Another important item which offers tremendous potential is carpet manufacture; an additional 6,000 persons could be employed in this trade during the decade. In addition, there is potential for setting up of woollen yarn and dyeing units and carpet finishing centres employing in all 600 persons.

Forestry: Farm forestry and afforestation on wastelands would generate employment besides providing the requisite forest cover. The estimated potential for plantation is over seven lakh hectares; but with the existing infrastructure the state can do afforestation over only four lakh hectares of wastelands. Besides this, forest cover could be extended over about 40,000 hectares during 1990-95 and by the year 2000 an additional area of 60,000 hectares could be covered if adequate bank finance is made available. Assuming that one person takes care of five hectares, potential for an estimated one lakh additional job opportunities over a decade through afforestation on wastelands and by extending forest cover can be created.

Fisheries: Another sector where some scope for employment generation exists is the fisheries sector. Rajasthan has nearly three lakh hectares of water body available for fish culture: 1.20 lakh hectares in large and medium irrigation projects and river beds and 1.80 lakh hectares in small ponds. Though about 45 per cent of this area is being utilised for fish production, the productivity is low. The major constraint in development of fisheries in Rajasthan is the inadequate fish seed and the absence of judicious and proper water management. A total of about thirty hatcheries in the private sector would suffice during 1990-95 and about fifty hatcheries may be organised in the next five years. At present the practice is to contract reservoirs by auction to contractors who employ fishermen as labourers to exploit the waters. For scientific exploitation of the potential, generation of optimum employment and proper water management fishing rights to individuals over 1 to 5 hectares of area may be given. In all, by the year 2000 about 26,000 fishing units could be operationalised with state support and would help create employment opportunities of around 25,000 persons assuming one to two persons per unit, depending on the area, to be the minimum requirement.

Mining: Rajasthan is a major producer of metallic and non-metallic minerals and has about 2,000 lessees of major minerals, 700 lessees of limestone and marble and 15,000 lessees of building stones and other minor minerals. In 1990 the mining sector contributed nearly 3 per cent to the SDP and employed around 2.42 lakh persons, with metallic minerals employing 9,160 persons, non-metallic minerals 16,088 and minor minerals 2.17 lakh persons. In other words, the minor minerals, e.g., sand stone, masonry stone, limestone, marble, etc., account for almost 90 per cent of total employment in the mining sector. The production in this sector is employment elastic; for example, in 1989-90 when production increased by 6.2 per cent employment went up by 9.2 per cent.

The employment in the mining sector has grown by about 8 per cent per year during

1984-90. Given this trend, the sector would be able to create additional job opportunities for 1.20 lakh persons by 1995 and another 1.80 lakh persons by the year 2000. Thus, during the entire decade about 3 lakh additional persons could be absorbed in the mining sector, provided that 1984-90 growth rate is maintained.

Additional employment opportunities for about 50,000 persons could be created over a ten-year period by stepping up exploration and mining activities in pyrites, tungsten, steel grade limestone, lignite, potash, gas and crude oil.

Industry: The state, with 5 per cent of population, has only about 3 per cent of the total factory employment of the country. The manufacturing sector contributes around 8 to 10 per cent to the state income. The long-term trends do not reflect dynamic features. The state in fact did not have a well-laid out industrial development strategy in the past.

By the end of December 1990, the number of registered factories had gone up to 9,931 as against 6,608 in 1981 with total employment of about 2.4 lakhs. In addition, 1.51 lakh smaller units were registered with the Directorate of Industries having an employment potential of about 6 lakh persons.

Considering the availability of resources in the state, the demand potential and future prospects, there appears to be vast scope for agro-processing units, livestock based industries including wool, mineral based industries, textile industries, high technology industries (electronic and engineering industries, chemical and petro-chemical industries), handicrafts, handlooms, gems and jewellery, etc. Most of these industries have strong backward linkages with the state economy. Broadly, the potential exists for direct employment of nearly 85,000 persons over the ten-year period in slightly more than 400 large and medium industries that would need investment of about Rs. 1,600 crores. The scope is basically in the demand based and foot-loose industries followed by livestock based industries.

Agro-processing: It is estimated that by 2000 A.D. various agro-processing units can employ an additional 16,000 persons a year. The important industries will be sugar and khandsari, edible oils, roller flour mills, maize based mills, Besan and Dal mills, and confectionery and bakery.

Tiny Industries, Artisans and Handicrafts: The important handicrafts are precious and semi-precious stone cutting and polishing, stone carving, handblock printing, tie and dye, woollen carpets and fine durry making, lac items, wood and sandal wood carving, leather embroidery items, lacquered wood works and costume jewellery, etc. The precious and semi-precious stone cutting and polishing industry alone employs about one lakh workers.

Given the present status and future prospects, an estimated 28,400 tiny units and 2.16 lakh units of artisans and handicrafts could be established in the state. However, there may be a demand constraint in the short run. About 85,000 units can be established during 1990-95 and given the average employment of two persons per enterprise, the employment opportunities can be created for 1.70 lakh persons. Further, assuming the same level and growth exists during 1995-2000, the total employment under tiny industrial units, artisans and handicrafts may be put around 3.4 lakhs over the decade. If a more optimistic scenario prevails, nearly 5 lakh workers can be employed in this sector.

Other Industries: The large scale electronics units could provide employment to about 6,000 persons by the year 2000. In addition, there is potential for manufacture of a large

number of electronic parts and components. Each unit when operationalised would create sizeable employment, particularly among the women workers. This employment would not be realisable unless workers are properly trained. On a conservative estimate the industry can employ 25,000 to 30,000 workers by the end of the decade.

Foot-loose Industries: Within the industrial sector vast scope exists for employment generation in the foot-loose industries. It is estimated that job opportunities for about 21,000 persons can be created.

Summing Up: On a conservative basis, employment in the manufacturing sector could be generated to the order of above 5 lakh workers during the decade 1990-2000. But with proper planning and co-ordinated action the figure can reach to 7.5 to 8 lakh persons, as there is a potential for 2.4 lakhs in the organised sector and 6 lakhs in the unorganised sector. This is by no means an easy task but is certainly in the realm of possibility.

Tourism: Tourism has recently been declared an industry in Rajasthan. The current tourist traffic is estimated to be around 35 lakh domestic tourists and about 3.5 lakh foreign tourists per year. By the year 2000 the number is expected to go up to about 65 lakh domestic tourists and about 7 lakh foreign tourists.

As no data on employment in activities connected with tourism are available, we have used the NSSO 38th Round results of Survey of Employment and Unemployment which indicate that 0.22 per cent of usually employed persons reported 'hotels and restaurants' as their industry in rural areas while 2.39 per cent in the urban areas. Applying these percentage to the estimated number of usually working persons in 1990 we arrive at a figure of 1.10 lakh. Doubling the existing number of both domestic and foreign tourist arrivals is likely to create additional job opportunities for about one lakh persons.

Construction: The 43rd Round of the NSS shows a sharp increase in the share of construction sector in the work force: nearly 12 per cent of the workers were reported to be engaged in the construction sector. Over the years this proportion might have undergone a change in view of accelerated construction activity in various spheres. The long-term growth rate of employment in this sector (1977-78 to 1987-88) is reported to be as high as 18 per cent and is expected to continue to absorb increasing numbers particularly the unskilled persons on irrigation works, command area development works, road works, buildings, housing, reclamation of land, bunding, soil conservation works, other land improvement works, digging of wells, etc. On the basis of the proportions given in the 43rd Round of the NSS, 5.8 lakh additional job opportunities are estimated to be generated during 1990-2000 in this sector.

Trade, Transport and Services: These sectors have vast potential for generating employment as a by-product of development that takes place in the other sectors of the economy. These tertiary activities taken together accounted for about one-sixth of the total work force in 1990. The 1981 Census suggests that for every person engaged in mining and manufacturing activities taken together, there were 1.7 persons in the tertiary sector. Applying this ratio to the additional employment under mining and manufacturing gives a figure of 14.60 lakh additional employment in the 'Trade, Transport and Services' sectors.

The Employment Scene in 2000: The aggregate employment potential in all the sectors of Rajasthan by the year 2000 is estimated by taking into account the discussions above. It

would be in the range of 35-44 lakhs.

During the next decade around 5 to 7 lakh vacancies will be created in the organised sector due to deaths and retirements. Thus, if with the concerted efforts of all concerned the more optimistic scenario, i.e., new job creation at the level of 44 lakhs, is realised, the state can have full employment by the end of the year 2000. If only the trend growth is maintained, the additional job creation will be around 42 lakhs (35 lakhs *plus* 7 lakhs) or so. In that case the backlog of unemployment will increase from the current level of 4.8 lakhs to something approaching 7 to 9 lakhs.

STRATEGY FOR IMPLEMENTATION

The Mathur Committee had made pertinent observations on the incentives for industrialisation offered by the states. We quote them extensively as we would like to endorse them.

A variety of incentives are offered by state governments to attract entrepreneurs to establish industries within their borders. The major incentives fall into three broad categories.

i) Reduction in capital cost and infrastructural expenditure by making available land and sheds at concessional prices and/or subsidy for the purchase of land and capital equipment up to certain ceiling limits.

ii) Incentives related to the prices and availability of inputs. These include concessional power tariffs and electricity duties, assistance for generating sets, reduced water rates and assistance in the procurement of controlled raw materials.

iii) Tax incentives which include sales tax, property tax and octroi concessions. These incentives include loans or deferment of sales tax.

The following shortcomings of such policies that affect locational choice were particularly noted:

i) Incentives that are meant to be selective become general and thereby the expected results are not realised. For example, backward area subsidies are extended all over.

ii) Concessions and investment subsidies operate through cheapening the cost of capital in the labour surplus and capital scarce situation resulting in capital deepening but without any gain in terms of employment or higher incomes.

iii) Advantages of the concessions are often short-lived. Units that are lured by incentives are often those that get sick and have to be abandoned. In other cases, concessions are taken to be diverted elsewhere.

Although some concessions and incentives are necessary in the existing situation, the state government would do well to emphasise:

i) Effective implementation of the existing concessions.

ii) Provision of infrastructure and services; and

iii) Aggressive promotion of industries/sectors in which the state has specific advantages, e.g., tourism, gems and jewellery, building stones, agro-industry, mineral and animal based industry and handicrafts.

Apart from the general considerations set above, the government should look into certain specific anomalies in taxation. Two of these deserve special attention: (i) taxation which encourages 'export' of raw material from the state rather than the processed goods, and (ii) taxation such as octroi which instead of helping the development of an area act as deterrent.

In spite of the subsidies on fertiliser, irrigation, electricity and credit, the agricultural sector has a lot of surplus labour as reflected in the heavy incidence of under-employment and low level of production. A sudden withdrawal of the subsidy may adversely affect the farm economy. However, continuing the burden of Rs. 800-900 crores on the state budget which is already in deficit is quite heavy. A phased reduction of subsidies is more or less inevitable. However, its timing and modality will have to be worked out carefully. In any case, at least in future, the government should desist from the easy path of offering subsidy as an alternative for harder tasks of encouraging research, developing markets or creating skills.

Re-ordering of the priorities may be necessary to fulfil the cherished goal of near zero unemployment by 2000 A.D.

An important aspect of public policy for employment generation in rural areas should be to encourage and support land augmenting and labour using technological changes, i.e., technological changes which increase yields per hectare while also increasing the labour input per hectare. Investment necessary for irrigation development and adoption of labour absorbing technology should, therefore, get the highest priority.

Irrigation development in backward regions should get highest priority in agricultural investment during the decade. Another related problem is with regard to utilisation of irrigation potential already created. It has been estimated that at least 25 per cent of the potential created is yet to be utilised. It would be advisable if proper technology is developed not only to fully utilise the potential but also to conserve the scarce water resource through construction of pucca lined water courses. The construction of link roads and market places may be equally important.

The third area requiring urgent attention is a switch to high value crops, especially on the small farms. This programme will require investment in research, extension, marketing and credit.

Industrial development will have to be given higher priority than in the past. Plan allocation for the industrial sector may be increased to at least 8 per cent of the total investment by the end of Eighth Plan and to 10 per cent by the year 2000 so that the process of industrialisation may pick up in the state. A significant proportion of investment should be earmarked for the development of small and tiny industries and handicrafts, both in rural and in urban areas.

Further, the tendency to invest in highly capital intensive plants needs to be curbed. If a few highly capital intensive large industries could have ushered in the prosperity of a state, Bihar and Orissa would have been the most prosperous states in the country rather than among the poorest as they are. This fascination for large lumpy investment should be dispelled, if the goal is to share the fruits of growth among as large a section of population as possible.

Moreover, the highly protective labour laws at present lead to greater use of capital in technologies more suited to the labour scarce western economies. This needs modification.

Infrastructural Requirements

Power: For the industrial projects suggested in the report, 3,300 MU of power requirement has been estimated. Lignite based power stations, mini hydel plants and gas based turbines need exploitation and development.

Roads: The state has the lowest road mileage per square km. This needs improvement by linking growth and distribution centres, approach roads to mines, etc..

It has been the experience that generally people avoid going to smaller towns primarily because of lack of facilities for education, health services and housing. To ensure that persons are attracted to the growth centres, the requirements of educational facilities right up to college levels, hospitals and dispensaries will have to be met through state support and in case of resource crunch through state's intervention. The housing activity will have to be geared up to provide shelter to a large number of people moving to growth centres. It is estimated that for industrial projects alone the requirement would be of the order of 1.26 lakh houses.

Social Infrastructure

For organised supply of raw materials and marketing of products of household, tiny and artisan industries, co-operatives of producers and other organisational innovations are needed. New design institution should be set up. In regard to skill formation and training, the existing ITIs are not adequate. Industrial associations should supplement this at their levels.