# CHAPTER - 8

## PLANNING FOR THE DEVELOPMENT AND UTILIZATION OF HUMAN RESOURCES

After arriving at the threshold of the present situation of Human Resources Utilization ( HRU ) , the prime concern is to formulate strategies of planning for the development and utilization of human resources.

Human Resources Planning ( HRP ) has been defined as "the process of developing and determining objectives, policies, and programmes that will develop, utilize and distribute manpower so as to achieve economic and other goals. It includes developing the necessary organizations and institutions required to execute manpower programmes" ( Ministry of Home Affairs, 1960,p.1).

Traditionally, HRP differs from economic planning in the sense that the former is concerned with the development of knowledge, skills, views, aspirations, and other human qualities inherent in human beings, while the latter is concerned with the optimum development in the use of material and economic resources. But now-a-days the ambit of human resources planning has been enlarged to include almost every aspect of development —

economic, social and political. It means that Human Resources Development ( HRD ) planning should be integrated with the planning for economic and social development.

In the words of Harbison ( 1967, pp. 136 - 138 ), "manpower policy should be concerned with development, maintenance and utilization of actual or potential members of labour force, including those who are fully and productively employed as well as those who experience difficulty in getting work". He elaborates this further saying that, "the development of manpower is the process of man's acquiring skills, knowledge and capacities for work... .The maintenance of manpower is the process of preservation and continuous renewal of man's capacities for work... . The utilization of manpower is the process of matching men and work in accordance with their level of development ... . Thus a comprehensive manpower policy would encompass all programs or activities directly related to the development, maintenance and utilization of the labour force, and a cohesive manpower policy would call for a logical and consistent strategy to guide all activity along these lines".

In the word of Sinha ( 1965, pp. 5 - 6 ) "manpower planning has several affinities with economic planning : it calls for the definition of the main alternatives for a long-term manpower policy, forcasting of

quantitative manpower requirements ( how many workers in each sector of activity ), and qualitative indication ( by level of skill ) of the training facilities needed. It must also decide the various stages of implementation and what each of them will cost".

It is therefore, obvious that an intensive use of existing materials and institutions including the setting up of new institutions to provide the manpower of the right type in the right quantity and quality at the right time, necessary for all round regional development, is admitedly important and essential. Thus human resources planning as a part of integrated plan for economic development of the area concerned should be related to economic, social and political goals.

Process of Human Resources Development ( HRD ) :

The concept of HRD can be explained in a variety of ways. In its general sense HRD is to build knowledge, skills, attitudes, aptitudes and other mental or physical capacity inherent in human beings, required for economic, social, political and cultural growth and provide avenues for participation in the productive activities so that they may create a better society for their well-beings.

According to Harbison ( 1964, p. 2 ) HRD is the process of increasing the knowledge, the skills, and the capacities of the people in a society. In economic sense HRD refers to the accumulation of human capital and its efficiently rational utilization in the development of an economy. In political sense HRD is the process of preparing people for adult participation in political affairs, mainly as citizens in a democracy. In social and cultural sense HRD process helps people to lead fuller and richer lives.

He has further suggested five processes of HRD :

First, through formal education begining with primary or first level education, continuing with various forms of secondary education, and then higher education including the colleges, universities, and higher technical institutes.

Second, on-the-job training through systematic or informal programmes in employing institutions, in adult education programmes, and through membership in various political, social, religious, and cultural groups.

Third, through self development, as individuals

seek to acquire greater knowledge, skills, or capacities through preparation on their own initiative by taking formal or correspondence courses, by reading, or by learning from others in informal contacts. Motivation for self development is directly related to the social values of the society and to incentives for training and for entering one occupation as opposed to another, as well as for learning new skills.

Fourth, through improvement in the health of the working population through better medical and public health programmes.

Fifth, through improvement in nutrition, which increases the working capacity of people, on a man - hour basis as well as over a working life.

Besides, Harbison's suggested five processes, HRD may also be through the programmes of social welfare, since social welfare services in a variety of ways are preventive, promotive, developmental and rehabilitative. They are complementary in nature and supplement in enabling the larger section of society to realize their full potential for growth. They are concerned with working conditions and amenities commensurate with need for employee's satisfaction. They are very much helpful

and useful in meeting certain needs of the most deprived and vulnerable members of society.

Problems of the Area :

In 1984, Dhanarua Block stood critically in the midst of bafling problems of human resources development. These problems are of three types : first is the problem of undeveloped and underdeveloped human resources, as about 44 % male and 76 % female human resources in the Block were illiterate or undeveloped human resources. Such a higher percentage of them poses critical obstacles in the development of the Block. Second is the problem of shortage of high level human resources with critical skills, knowledge, competence etc. as they are very essential for entry into the job market. These qualities require substantial development just after high or secondary school. Third is the problem of redundant or unutilized and under-utilized human resources as about 53 % male and 89 % female human resources were unutilized and they became dependents or a liability on working human power. About 20 % males and 27 % females of the utilized male or female human resources remained under-utilized.

In the context of the above mentioned problems,

therefore, there is a need for and urgency of formulating a strategy of HRD and HRU.

Objectives :

To meet the above needs the broad objective of planning may be broken up into the following specific heads :

(i) to provide all attainable amenities to all infants of the age group of 0 - 4 years for promoting and developing potential valuable assets.

(ii) to literate and educate all children, providing universal elementary education irrespective of their caste, creed, class, religion, or other social or economic aspects, within a specified range of age group of 5 - 14 years.

(iii) to functionally literate, educate and make trained all the adults of younger working age group of 15 - 34 years as they are more mobile and more productive assets of the area.

(iv) to functionally develop the potential capabilities of the human power of older working age group of 35 - 59 years as they are relatively less mobile, less active and less productive wealth of the area.

(v) to functionally maintain those superannuated persons of over-working age group of 60 and above who wish to learn and work in productive processes as they have also potentialities in producing usable goods.

(vi) to provide all essential amenities or infrastructure to all human power falling under all age groups for the appropriate development of their physical or mental capacity.

(vii) to generate employment of different nature at primary, secondary and tertiary levels and provide avenues, for participation in productive processes, to all of them who are able to work, wish to work and seek to work. Provision of participation would be on the basis of the levels of human qualities ( knowledge, skills and other physical or mental capacity ) reauired in the respective activities or works.

Planning Commission, Government of India, under Seventh Five Year Plan ( 1985 - 1990 ) has also laid emphasis on the above mentioned problems and has introduced the Minimum Needs Programme ( MNP ) to assist in raising living standards in reducing the regional disparities in development. The programme is essentially an investment in human resources and includes "elementary education, adult education, rural health, rural water

supply, rural roads, rural electrification, rural housing, environmental improvements of urban slums and nutrition", as basic needs of the human power in the area. The implementation of this minimum needs programme may increase the productive capacity of the community as a whole and also improve the economic conditions of the individuals.

Human Resources Development ( HRD ) Process :

How to develop human resources of the area concerned is not as easy a task as some people usually think. HRD has a very wide canvas and it is difficult to plan. Yet , an attempt has been made to prepare a model ( Fig. 8.1 ) for HRD and HRU highlighting the elements or the formulation of strategies for the development of human resources and their utilization under the need satisfaction concept. Here the need satisfaction concept suggests providing human-beings with education, health and employment.

Now, let us see how the different age - groups can be tackled to achieve these ends.

Infants :- It has been found that 13.67 % males and 13.26 % females of the Block were infants. They are the most valuable potential human resources of the area.

# MODEL FOR HRD AND HRU

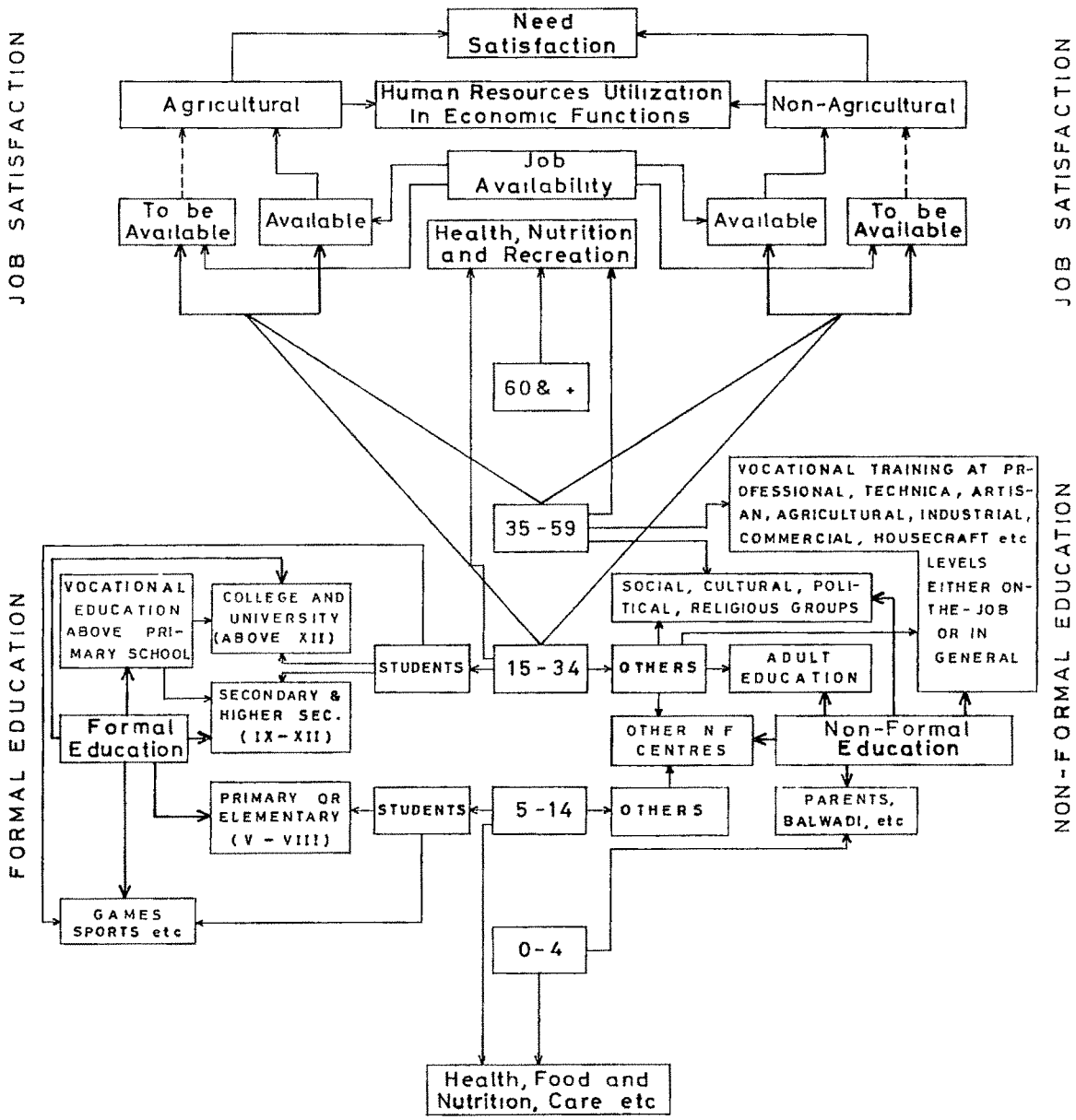



Fig 8 1

Their future levels of knowledge, skills, abilities, hopes and aspirations will dictate the rate of utilization of all types of resources and all aspects of development of the area. All infants, therefore, should be provided with all the requisite amenities, such as health, food and nutrition, etc. and above all child care, from the point of view of the sound development of their mental and physical capability ( Fig.-8.1; see bottom ). Another source of their development is linked with Balwadi type of non-formal education. Planning Commission ( Oct. 1985, p. 309 ) has also laid emphasis on the development of child human resources through Integrated Child Development Services ( ICDS ) which includes the provision of supplementary nutrition, immunisation, health check-up, referral services, health education, non - formal education etc. to children below six years of age in backward or tribal Blocks and urban slums. This area can be benefited from such schemes.

Child Labour of Under - working Age Group or School Going Children :- 25.37 % of the total male and 25.74 % of the total female population of the area are children of the age group of 5 - 14 years. Obviously, they constitute one-fourth of the total population. They are, of course, the most valuable and precious human resources

falling between the developmental process and utilization process. They are just to be readyed to enter the category of working human resources. From the developmental point of view they are primary or elementary school going children and they are required compulsorily to achieve elementary education according to the 'Article 45' of the Indian Constitution ( Planning Commission, Sixth Five Year Plan 1980 - 1985, p. 386 ). In spite of this, only 65.27 % males and 43.09 % females of this age group were on the human capital formation or under the HRD process through formal education, and the rest of them were off formation ( Chapter - 5, Table - 5.5 ). It means that every number from this category of children not going to school, is going against the constitutional stipulation and goes against the development of the area. The Government of India, however, has, under the Minimum Needs Programme ( MNP ), stipulated that all children up to the age of 14 years should be provided universal elementary education by 1990 through a network of formal and non-formal systems. This will enable them to acquire functional literacy to help them in their future socio-economic activities ( Planning Commission, Oct. 1985, pp. 255 and 397-98).

Children falling under this age-group have been categorised into two — school going children of

classes from I - VIII, and non - school going children of the same age-group. Former will go through formal education and latter through non-formal education as indicated in the model ( Fig. 8.1 ). Maximum efforts should be made and weightage should be given in accommodating children under system of former education as non-formal system may not be so effective in providing universal elementary education. Thus, at this level of education they will achieve a broader literary base and potentially more receptive knowledge for further development regarding science and technology at secondary and higher educational levels.

The formation or development of children's physical power depend absolutely on the availability of health services, food and nutrition, health care etc.. Generally, children suffer from various communicable diseases like diarrhoea, dysentry, worms, virus, and respiratory and malnutritional diseases . The main source of such diseases is the lack of sanitation in the villages. Particularly during the rainy season situation becomes worst; roads and tracks near the settlements are used for attending to nature's call which leads to the spread of communicable diseases. In the words of Kamble ( 1984, p. 34 ), latrine is the most urgent and important requirement of the

village to control communicable diseases. From this stand-point the availability of sanitation is of prime importance in the villages. Besides, preventive measures for all diseases should be taken. The Government have declared to launch Special Nutrition Programme ( SNP ) and Mid-day-Meal Programme for the school going and pre-school children. These programmes in common with disease preventive measures must be made available, for better physical and mental personality of the children and others.

More Active Human Resources of Younger Working Age Group ( 15 - 34 ) Years :- This age group is the backbone of the society by virtue of being more active, more mobile and vigorous younger working human resources. The development of human faculties of the persons of this age group occurs three ways - through formal education, through non-formal education and through improvement in health and nutrition. All these play a very significant role in generating human capital.

Formal Education :- Formal education at this stage can be groupedunder two categories : School going (Class IX to Class XII ) age - 14.1 to 18. years and Post school going age - 18.1 to 23 years ( Chapter - 5, Table 5.5 ).

The development of mental faculties of students of former category takes place in the orderly, systematically arranged whole day classrooms of secondary cum higher secondary schools, and of the students of latter category takes place in the class room of colleges, universities, professional/technical institutes etc. It has been found that till now formal education remains classical in fashion. Students get only degrees, diplomas, certificates, etc. which have narrower scope of their utilization, and consequently most of the students returning after school, college or university education remain unutilized or under-utilized human resources. Keeping all this in mind the traditional or conventional systems of formal education needs to be critically reviewed and professional and technical, education incorporated into the system. This should lead to matching of human power to the different kinds of jobs available in the area or outside.

Capener, H. R. ( 1964, p. 121 ) also stated that primary education has long term pay off implication whereas secondary education with a bias for college preparation along with training in practical vocational skills is of great importance. Much of higher education at the college level needs to be substantially restructured from the point of view of practical utility,

job opportunity and contribution to basic needs of a developing economy. Greater opportunity needs to be provided for, and greater emphasis to be placed on, training persons in the technical and professional areas which feed more directly in turning the wheels of the economy. Functional education aimed for at the masses and designed to mobilize and husband the human resources is a definite requirement for short as well as long range development.

Games and sports including other activities are other important ways for developing human resources of the area. So the strengthening of such activities at elementary, secondary cum higher secondary and college, university educational level is essential.

Non-Formal Education :- Non-formal education is as important as formal education. It is a continuing life time process of the development of knowledge, skills and capacities of the people, particularly of the labour force. It encircles the entire range of learning process out side the formal educational systems. There are numerous types of non-formal programmes conducted by the governmental and non-governmental groups. The proposed model ( Figure - 8.1 ) attempts to cover only those common programmes which may easily be conducted and

be suitable in all respect to the rural people.

From this point of view it has been calculated that 22.71 % males and 69.57 % females ( Chapter - 5, Table - 5.4 ) of the younger working age group of 15 - 34 years remain illiterate and qualify for quantitative human resources. Such people may be, no doubt, healthy, vigorous, and active in the pysical sense of labour participation but in terms of quality they remain poor and require to go through the non-formal educational programmes particularly through adult education programme. This would facilitate literacy, functional education and training in functional skills relevant to their respective occupations. Regarding all kinds of learning emphasis should be laid on scheduled castes and backward castes people and special emphasis should be on females providing several incentives. Planning Commission, Government of India ( Oct. 1985, p. 258) has laid emphasis to cover all illiterates falling in the age group of 15 - 34 years by 1990 to meet such needs. As there is scarcity of institutions, organizations and physical resources in the area, these are immediately required to be provided through Government and Voluntary organizations.

It has been calculated that 63.92 % of the males and only 14.92 % of the females of this age group

were utilized ( Chapter - 4; Table - 4.3 ) in agricultural and non-agricultural economic functions. They should be provided vocational training to match their occupations, so that their productive capacity may be increased thereby increasing their earnings and improving their standard of life.

Only 12.44 % of the males and as much as 81.60 % of the females ( excluding 23.64 % male and 3.48 % female students ) of this age group were unutilized and remained non-workers. All unutilized males and females should be provided various vocational skills while getting the functional literacy through adult education and through other non-formal educational programmes.

In this way, all males and females ( excluding the students who are getting through formal educational systems ) must be provided opportunities of non-formal educational programmes . The main emphasis should be on removing illiteracy through adult education and through other programmes conducted by social, cultural, political, religious, etc. groups. Vocational training skills may be imparted on-the-job itself and may be related to their parental occupations or in the occupations he/she is interested.

Vocational training comprises training in

professional skills, technical skills, traditional skills or artisan skills, and skills required for modernization or increasing output in agricultural, industrial (household and others ), commercial and domestic activities, ( Figure - 8.1 ). All these types of vocational training may be imparted by village polytechnics, village mobile training units and by other non-formal educational centres. Village polytechnics aim to provide young people with skills, understanding, values etc. which will lead them to look for worthwhile occupations in the rural area. It includes agriculture, marketing, artisans, trade, rural industry, commercial training etc. Mobile training units will offer training in auto machines, radio repair, electricity, welding, tailoring, hair dressing, food preparation, dress making, typing etc. All investment required in such activities will have to be born by the Ministries of Education, Cooperatives, Social Services, Agriculture, Health, Commerce and Industry, Planning and Finance.

In all categories of non-formal education women will have to be given special recognition to be equipped and trained for appropriate skills so that they can contribute to raising their own and their household income level. It would facilitate bringing them into the economic mainstream as useful and productive human beings.

Less Active Human Resources of Older Working Age Group of 35 - 59 Years :- Earlier description showed that more than 40 % of males and more than 75 % of females of this age group remained illiterate though their muscular labour power contribution in different economic activities is of utmost importance. They have been found contributing more human capital than the worker of younger working age group. They are also more responsible toward development. No matter, they are comparetively less active than the workers of younger working age group but they are more matured having better traditional and self developed skills, and working experience in production processes. They are, no doubt, the great human wealth for all round development of the area.

But, they are over the age of formal education and unfortunately beyond the purview of the government's scheme of adult education. Yet a certain portion of labour force from this age group also may be provided functional literacy relaxing the age limit because some workers may wish to join the adult education programme in the hope of raising their knowledge, and skills, for bettering their agricultural production and raising their earnings.

They can have better learning through vocational

training either on or off the job. Since they are mostly farmers and farm labourers and need upgradation of their traditional functional skills, they may be given specific instructions and training in the use of fertilizer, insecticides, water use, planting, harvesting and handling of crops.

In all training programmes women folk should receive special emphasis because only 4 % of males and 78 % of females are redundant human resources in the area.

However, the working capacity will not be fully developed only through non-formal educational programmes. Improvement in health, food and nutrition, and recreation, etc. should also be looked into for developing human resources ( Fig.-8.1 ). Improvement in these things will be complementary to non-formal educational programmes in the process of HRD.

Superannuated or Less Utilizable Human Resources of Over Working Age Group of 60 and Above :- It has been calculated that 73 % of the males and 15 % of the females of this age group were contributing their physical or mental power in the production processes of agricultural and non-agricultural economic functions in the Block. They are also very important human resources of the area.

In fact they are weak in all respect in comparison to the workers of working age groups though they are also responsible to their family affairs. From the physical labour point of view they are, no doubt, very important in the development of the area. Unfortunately, they are also beyond the purview of the government's schemes of developing human resources through non-formal educational programmes. Since, their contribution in economic terms is important and useful, so for them also some special programmes should be launched so that their physical and mental capacity may remain at least maintained for better efficiency in their respective occupations and for preventing them from being a burden on the prime working force.

From this standpoint all persons falling under the age group of 60 and above should be linked with the provision of health, food and nutrition, and recreational facilities ( Figure - 8.1 ). This is the only way of maintaining or conserving their physical working capacity. In the words of Harbsison F. H. (1967, p. 137 ),"The preservation and improvement of health is also important in maintaining the capacity for work. Retraining programmes are designed primarily to maintain the ability of persons to participate in the labour force in the face of rapid changes in jobs and required skills".

It is, therefore, obvious that their working capacity can be maintained through improvement in health, food and nutrition, recreational facilities and consumption or improvement in utilization of their working capacity in different economic activities. Thus all requisite essentials for maintaining their physical and mental working capacity must be amply available.

## HRD And Amenities ( Educational And Health )

An achievement of the target of HRD depends largely on the availability and functioning of adequate educational and medical institutions. There is very close association between the HRD and educational and health amenities. Educational institutions are related with the levels of educational attainment and health centres are related with the status of health of the people. Education and health are, therefore, the two qualitative parameters for measuring respectively the mental and physical capacities of the human resources. And, therefore, with a view to plan the development of human resources, we have to plan for adequate provision of educational institutions, and health care and remedial centres of various types and levels.

Criteria for Setting up of New Educational Institutions :-

For establishing new schools and colleges different institutions have adopted different criteria. Ministry of Education, Government of India ( 1966, pp. 17-23 ) has adopted the criteria that the habitation having a population of 300 should have one primary school provided that the number of school going children form about 12½ % of the total population with at least 40 students, and also that the distance between two primary schools should not exceed one mile ( 1.6 Km. ).

Similarly, the habitation having 1500 total population either separately or jointly should have one middle school provided that school going children constitute 7 % of the total population with at least 120 students. Radial distance for a middle school should be 3 miles ( 4.8 Km ) though it may not be rigidly followed.

The habitation having 5000 total population either individually or jointly should have one high school provided that the distance of school should be 5 miles ( 8 Km. ) from the residence of rural child. In certain areas the limit for distance could be slightly increased and that for total population lowered down if circumstances so demanded.

Khan and Tripathi ( 1976, pp. 81 - 82 )

adopted two criteria — Access Standards and Population Standards — in the location of primary, middle, and high schools. In the former they considered the age of the children and the maximum distance they would cover without physical inconvenience. They stated that "a distance of 1.5 Km was considered maximum for primary school. For junior high school the maximum distance was taken as 3 Km., and for high school it was taken as 5 Km." In the latter they recommended that all settlements or group of settlements within a radial distance of 1.5 Km.; having a total population, individually or jointly, in aggregate of 1500 should have a junior high school. The number of students should be 60 . In exceptional cases a junior high school may be located in a settlement or group of settlements having a population of 1000. The minimum population norms for a high school should be 4500 and the maximum distance between two high schools should not exceed 10 Km. and the number of students should be 150. It would be desirable to have a junior college for a group of settlements with an aggregate population of 10,000 if no individual settlement alone can satisfy this population norm. The number of students should be 200.

N.C.E.R.T. ( 1982, pp. 1 - 17 ) conducted Fourth All India Educational Survey in 1978. It recommended that in order to achieve the objective of universal

elementary education primary school should be made available within a convenient walking distance of 1 Km. from the home of every child. This convenient distance should be fixed keeping in view the age of school going children, topography and resource of the region. It was found that 92.82 % of the total rural population in India was served by the primary schools within the walking distance of 1 Km. Similarly, 82.52 % of the rural population was served by middle schools within the distance of 5 Km. and 82.18 % of the rural population was served by high schools within the distance of 8 Km.

In setting up of new educational facility in a habitation the size of population and the distance that the children of a particular age group can easily walk to and from the school was considered.

The above mentioned criteria may not fit in everywhere. Limitations of distance, size of population and number of students depend on various factors. In hilly or forested areas the radial distance for a school will increase as against the plain areas. There will have to be a group of a larger number of settlements to satisfy the norms of minimum population size as compared to that in plain areas. It is, therefore, clear that spacing of schools either existing or proposed is subject to the influence of topography, river, forest, transport etc.

Criteria Adopted for the Area :

Thus, it is very difficult to establish any fixed criteria in setting up of new schools. However, from the point of view of development and utilization of human resources of the area the present author has adopted the criteria of students in a class that appears to be conducive for a single teacher.

In one class of a primary school the minimum number of students has been considered to be 20. Thus one primary school of five classes ( I - V ) will provide for 100 students and one middle school of three classes ( Vi - VIII ) will meet the needs of 120 students. For secondary cum-higher secondary schools (IX - XII) the total minimum students has been considered to be 300 and for one degree college the number of students has been considered to be 200.

Existing and Proposed Educational Institutions :

On the basis of the sample data it was calculated that 16.76 % to total population was in the age group of 5 - 11 years ( at the stage of primary schools) in which 9.08 % were going to schools and 7.68 % were not going to schools. Similarly, 8.78 % of the total population was in the age group of 11 - 14 years ( at the stage of middle schools ) in which 4.98 % were going

to schools and 3.80 % were not going to schools. The number of existing primary and middle schools were 123 and 27 respectively ( Figs.- 8.2 and 8.3 ). Numbers of high schools and college were eight and one respectively ( Fig. - 8.4 ).

All children up to the age of 14 years are to have compulsory education. Looking to the number of eligible students not going to school, the number of proposed primary and middle schools are 84 and 36 respectively ( Figs. - 8.2 and 8.3 ). If all these proposed schools are opened almost all non-school going estimated children - 8830 ( 7.68 % ) of primary school category and 4339 ( 3.80 % ) of middle school category - would be provided for.

Since after this age there is bound to be some drop outs as there is no stipulation of compulsory education above 14 years of age and only four secondary cum higher secondary schools have been proposed ( Fig. - 8.4 ). And one degree college has been proposed to absorb the local students passing out of class twelve ( Fig. - 8.4 ).

Location of Schools and Colleges :

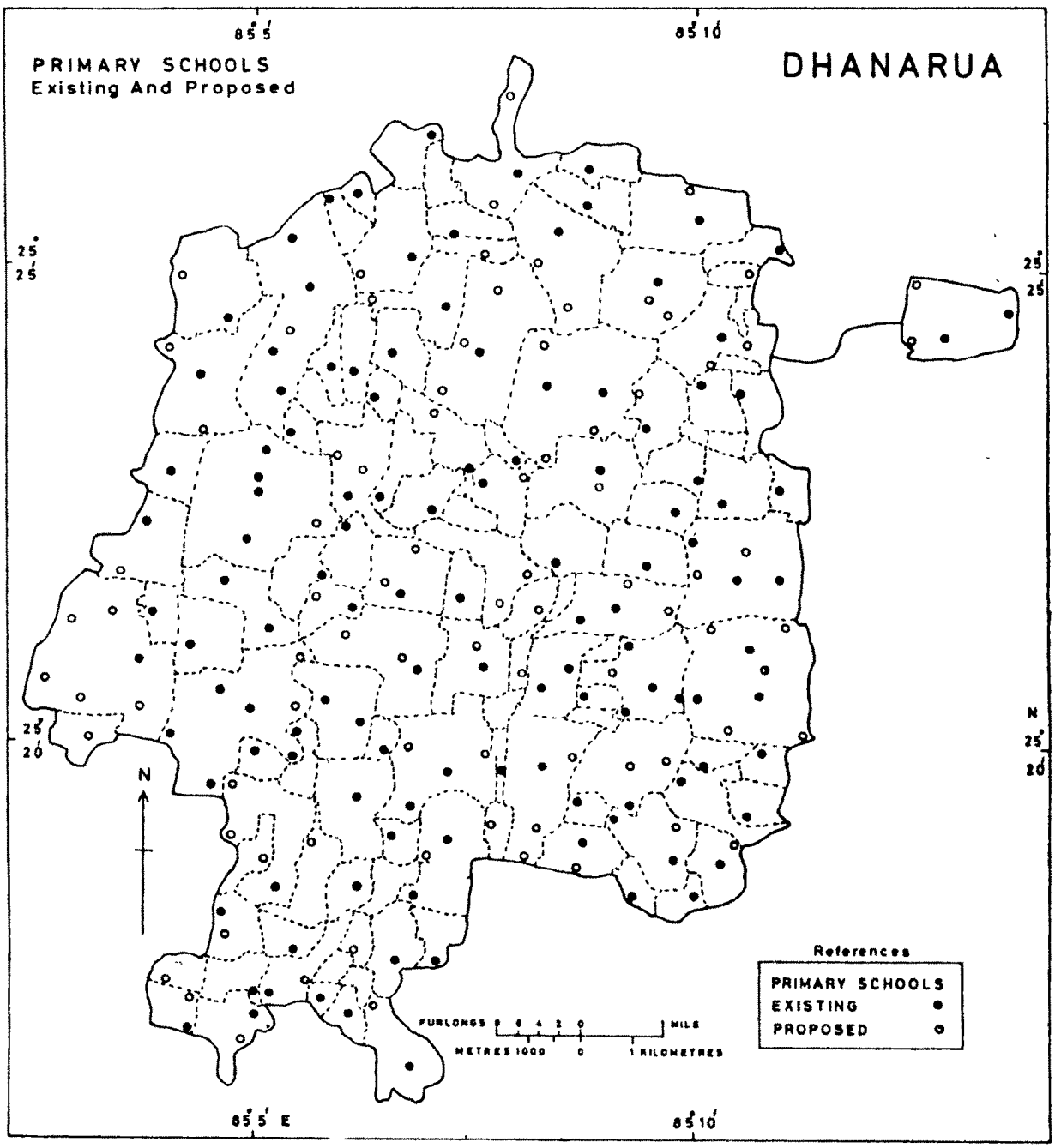
In the location of proposed school two criteria-

site of settlements and size of population of settlements - have been taken into consideration. Figures - 8.2,8.3, and 8.4 clearly show the location of proposed educational insfitutions in the area.

Primary School :- In the location of primary schools attempts have been made to see that every child gets a school as near as his/her residence as possible preferably in the habitation in which he/she resides. The number of primary schools has thus been proposed on the basis of the following size of population of the villages, though this has not been followed rigidly.

| Population size | Number of Primary Schools Proposed |
|---|---|
| Below 1000 | 1 |
| 1000 - 2000 | 2 |
| 2000 - 3000 | 3 |
| 3000 - 4000 | 4 |
| 4000 - 5000 | 5 |

On this basis, 84 primary schools have been proposed in different villages, ( Fig.-8.2 ) to accommodate almost all the children up to age of 11 years. If all the existing and proposed primary schools do not accommodate all children of this age, the classes should


PRIMARY SCHOOLS
Existing And Proposed
DHANARUA
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References
PRIMARY SCHOOLS
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Fig 8 2.

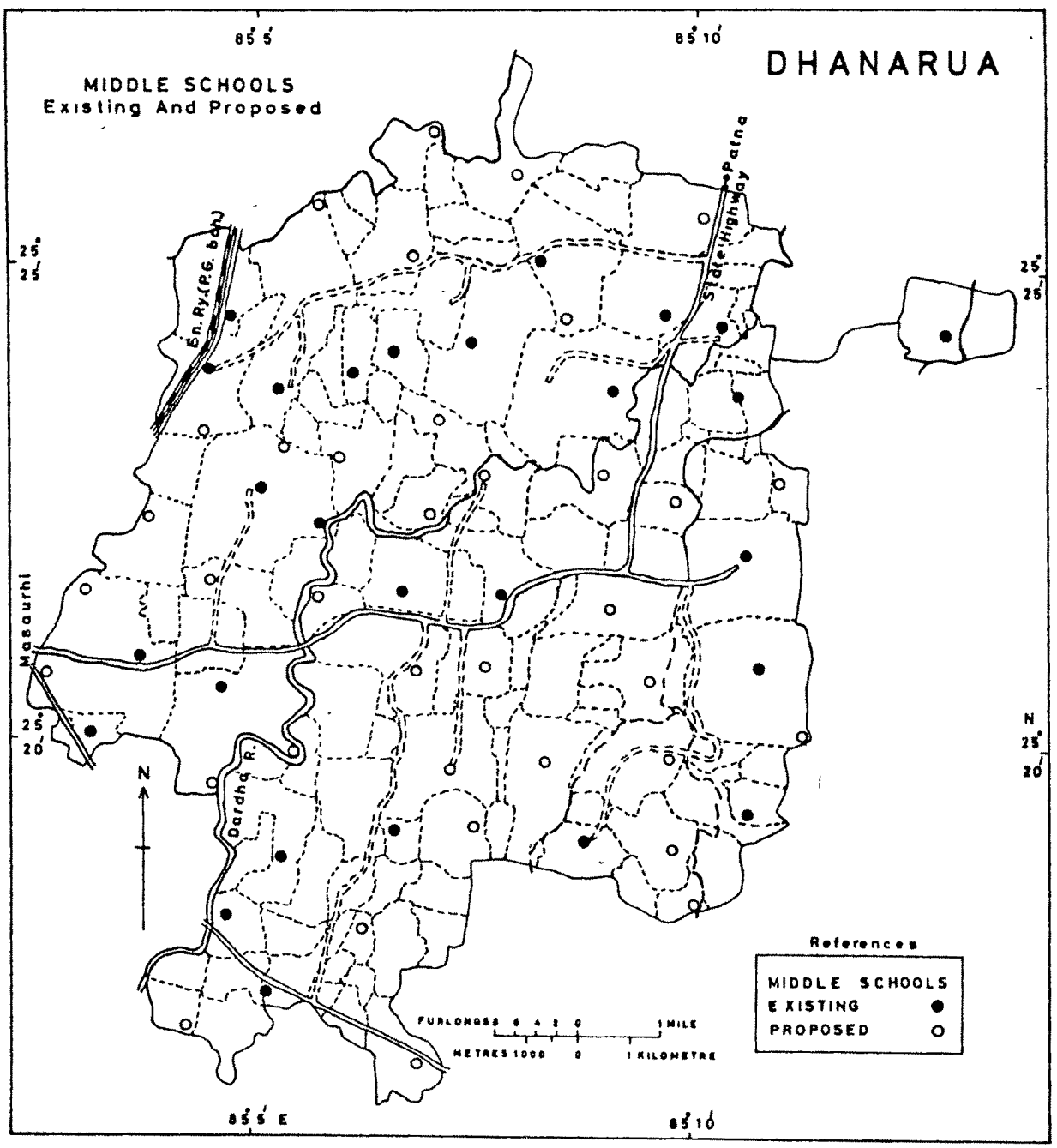
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Fig 8.3.

cum higher secondary schools. All these schools are well connected with roads. There are eight existing schools most of which are located in the southern half of the area. The distance between two schools in the north is more than that of the south. To make the distances approximately equal between the schools and to provide easy accessibility to the students of 14 - 18 years of age, four new secondary-cum-higher secondary schools have been proposed, all being well - connected with roads.

Degree College :- It has been observed that most of the students, ( particularly boys ) after passing the school stage, go to the colleges in nearby towns. The number of girls doing so becomes negligible. Large number of boys discontinues studies due to economic constraints and distance from home. In case of girls, the economic constraints are forfeited with socio - cultural considerations. If some colleges are opened in the locality it may encourage higher education among both boys and girls. But for girls, separate arrangements in women's college or lady teachers for girls classes in boys' colleges may be more practical under the existing circumstances.

Only one degree college exists in the western part of the area ( Fig. - 8.4 ) in which mostly boys are enrolled. Another college has been proposed in the eastern

part which may be developed as women's college in which well qualified, trained and experienced lady teachers may be appointed. It would be desirable to increase the number of colleges in other localities depending upon the number of boy and girl students.

The opening of new schools and colleges will go a long way in developing the knowledge, skills, attitude and aptitude of the existing and potential human resources of the area.

Professional / Technical Institutions :- As it has been stated earlier, there should be emphasis on vocationalization of education at secondary-cum-higher secondary and at the college level in the systems of formal education.

So far as the matter of vocational education in non - formal educational system is concerned evening training classes may be arranged in the existing buildings of the primary, middle, secondary-cum-higher secondary schools and colleges, with some modification and addition where necessary . This will facilitate immediate start of such courses and also easy access to the people concerned . It would be however necessary to open separate institutions for specialised training in which some equipments are needed to be housed . Thus, occupation

based or job oriented training should primarily be concentrated in the same building in which formal education is coducted. Yet, it would be desirable to open at least one ITI and one village polytechnic in the Block.

## Medical Services : Existing and Proposed

Health is of course a wealth of a community which undoubtedly determines economic, social, eultural and political development of a region. Poor health leads to lowering down the productivity and earning capacity of the human power and deteriorates the quality and quantity of consumption and standard of living. Therefore, the provision of medical services is of great importance in developing and utilizing human resources of the Block.

Figure - 8.5 shows the spatial distribution of existing and proposed medical facilities in the area.

### Existing Medical Facilities :

Existing medical facilities include different levels of medical services.

Hospital :- is at the top level as it possesses most of

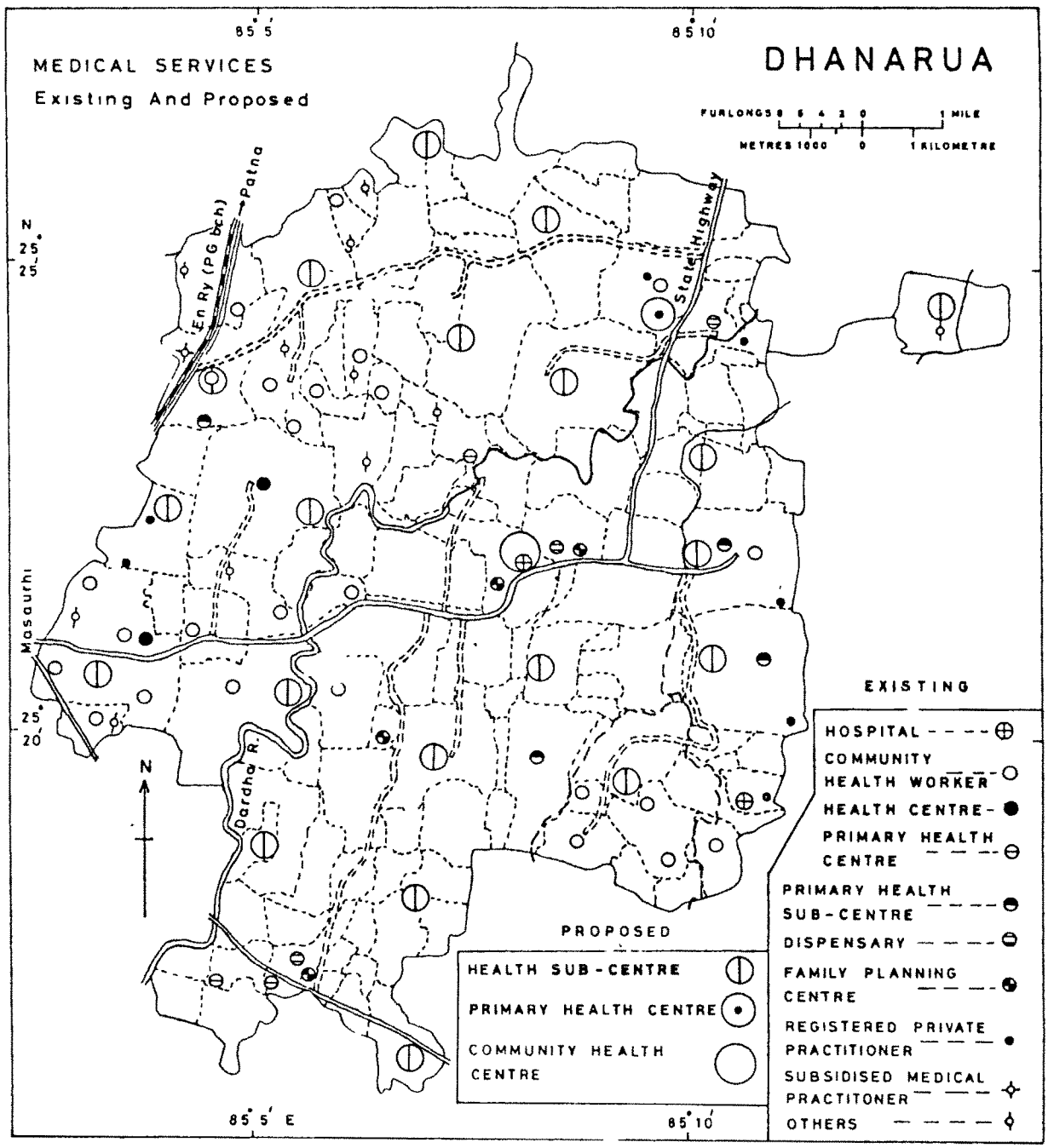
MEDICAL SERVICES
Existing And Proposed
DHANARUA
85° 5'
85° 10'
FURLONGS 8 6 4 2 0 1 MILE
METRES 1000 0 1 KILOMETRE
N
25° 25'
E.Rly (PG brch)
Patna
State Highway
Masaurhi
25° 20'
Sardha R.
85° 5' E
85° 10'
EXISTING
HOSPITAL
COMMUNITY HEALTH WORKER
HEALTH CENTRE
PRIMARY HEALTH CENTRE
PRIMARY HEALTH SUB-CENTRE
DISPENSARY
FAMILY PLANNING CENTRE
REGISTERED PRIVATE PRACTITIONER
SUBSIDISED MEDICAL PRACTITONER
OTHERS
PROPOSED
HEALTH SUB-CENTRE
PRIMARY HEALTH CENTRE
COMMUNITY HEALTH CENTRE

Fig 8.5

the facilities and provides both medical and surgical services for both in and out patients. There are only two hospitals in the Block and they are located in Dhanarua ( almost in the centre ) and Semhari Buzurg ( in the south ). These two hospitals are not properly located from the point of view of accessibility to the people from all over the area. People living in the south , west and north are not able to make proper and adequate use of the facilities at these centres .

Health Centre :- There are only two health centre and both are located in the big villages ( Kosut and Barni ) which lie in the western portion of the Block.

Primary Health Centre :- There are three primary health centres in the Block and are situated in three villages namely Aurangapur, Nataul and Gauspur - Dubhara. These centres provide primary health services to the patients, but are not as fully equipped as a hospital. These centres carry out multipurpose functions such as environmental sanitation, control of communicable diseases, control of trachoma, leprosy etc.

Primary Health Sub-centre :- Constitute the nuclei at the grassroot level to provide preventive and promotive

health care measures in addition to family welfare and maternity child health care. Primary health sub-centres are equipped with first aid and minimum medical facilities so that the patient can be shifted to primary health centre or to nearby hospital without risk. There are only four sub-centres in which three are situated in three villages - Pabhera, Chhati and Bardiha - in the south - eastern portion of the Block. Another one is situated in Nadwan in the west.

Community Health Worker :- is the smallest unit of health care system. Each village of 1000 population is expected to have one community health worker, who may look after the people of neighbouring villages also. There are 24 community health workers in the Block and most of them are located in two pockets in the western portion of the area. Third pocket of a group of 5 is located in the south - eastern portion. Three centres are isolated in eastern, north - eastern and north - western parts of the Block. Southern, eastern and north - eastern parts of the area are lacking this facility. In this way, all the villages are not covered by this elementary facility.

Family Planning centre :- There are four such centres in the Block in Nataul, Parmanki, Dhanarua and Jalalpur.

They are almost in the central and southern parts of the Block. Villages lying in western, northern and eastern portion may have to face problems because of greater distances from the centres.

Dispensaries :- There are only three dispensaries which are situated in three villages, namely Bir, Jalalpur, and Nataul.

Registered Private Practitioners :- There are seven practitioners in the Block five are located along the eastern periphery of the Block in villages Oiara, Bir, Pabhera, Chhati and Semhari Buzurg and two in one village Keorha, along the western periphery.

Subsidised Medical Practitioners and Others : - There is only one subsidized medical practitioner who is located in village Niman. There are 11 others ( not specified by name ) of which 10 are concentrated in the western portion of the Block . One lies in isolated village, Nanauri.

On the whole, it is evident that the villages lying in the western portion of the Block are better provided with medical facilities. This may be because of easy access through Patna-Gaya railway line and road

which connect them with the capital town of Patna.

## Proposed Medical Services

Villages located at greater distances from the centres of medical services have to face problems even in case of minor ailments. Many a times patient die for want of timely and adequate medical attention. Keeping this in mind and to make easy access of medical services to all the villagers three - tier system of health services - Community Health Centre ( CHC ) , Primary Health Centre ( PHC ), and Primary Health Sub-centre (PHS) - has been proposed. Such a system has been emphasized by the Planning Commission ( Oct. 1985, pp. 272 and 398) under Minimum Needs Programme ( MNP ) of the Seventh Five Year Plan. Its aim is to attain the goal of health for all by 2000 A.D. In this perspective it is stated that "... . for developing the country's vast human resources and for the acceleration and speeding the total socio - economic development and attaining an improved quality of life, primary health care has been accepted as one of the main instruments of action. In the overall health development programme, emphasis will be laid on preventive aspects and on organising effective and efficient health services which are comprehensive in nature, easily and widly available, freely accessible, and

generally affordable by the people".

The map of medical services ( Fig.-8.5 ) shows the locations of proposed CHC, PHC and PHS . The number of these service centres is based on the following criteria of population size adopted by the Planning Commission ( Oct. 1985, p. 401 ).

| Size of Population | Number of Service Centre |
|---|---|
| (i) 100000 or one CD Block | 1(CHC) |
| (ii) 30000 in the Plains and 20000 in the Tribal or Hilly Areas | 1(PHC) |
| (iii) 5000 in the Plains and 3000 in the Tribal or Hilly Areas | 1(PHS) |

The existing medical services are not adequate. Considering the total population of the Block ( 114971 in 1981 ) the numbers of CHC, PHC and PHS have been proposed to be located equitably so that all the villagers may get advantage of medical services easily and adequately.

(i) Community Health Centre (CHC) :- Dhanarua Block

qualifies for only one CHC on the basis of the given criteria. It should be located in Dhanarua, the head-quarter of the Block ). Here one hospital, including other medical service centres, is already in operation. It has been proposed that the same hospital should be converted into CHC with adequate essential facilities. This should be equipped with sufficient beds, specialists and well trained doctors, nurses and other assistants so that the centre may provide quick, timely, and adequate medical and surgical services to the inhabitants of the Block.

(ii) Primary Health Centre ( PHC ) :- To serve the total population of the area the number of PHC should be four. Three PHC are already in existance ( Fig.-8.5) in three villages — Aurangpur, Nataul and Gauspur Dubhara. But their spatial location is not proper because two PHC located in Aurangpur and Nataul in the south are in close proximity to each other . The fourth should be located in Oiara to cater to the needs of the people in the north eastern portion of the area. These are already linked well by roads. In view of achieving the goal of health for all these PHC should be provided with all the facilities and equipped with sufficient beds, doctors, other assistants for better medical and surgical services.

(iii) Primary Health Sub-centre ( PHS ) :- It has been proposed that for every 5000 population there should be one PHS. Thus there should be 20 PHS to cover the whole area, to provide better medical services and health care. All these centres should be linked well by roads for quick and easy services. Besides, three existing PHS should also be strengthened for better services. Each centre should be well - equipped with all assential facilities including well trained staff.

Thus the network of CHC, PHC and PHS along with other medical services would provide promotional, preventive and curative facilities to cater the specific needs of all individuals in the Block.

## Investment in HRD

Since investment in HRD has direct bearing on the all round development of a region by promoting physical and mental capacity of the people ( through formal and non-formal education, and improvement in health and nutrition ) and utilizing them in production processes, the successful existence of all the proposed educational and medical service centres requires investment of physical capital ( finance ) which government has to bear. It is because of the fact that "expenditures on education,

health and welfare are not consumption expenditures only, but they have investment component also; for they enhance the'acquired and useful abilities of life'" (Panchmukhi, P. R.,1965, p. 71 ). In this way, expenditure in HRD is meant to promote worker's skills, knowledge and creativeness ( through schooling ) on the one hand and vigour, vitality and mobility ( through improvement in health ) on the other hand. Thus, investment in HRD refers to all types of expenditures on general education ( primary, middle, secondary/higher secondary, college and universities ) technical, vocational and professional education, on-the-job, in service or apprenticeship training and on the improvement of health and nutrition.

In addition to this expenditure should also be incurred on some programmes such as Farmers Skills Upgradation Programme ( FSUP ) and Traditional Skills Upgradation Programme (TSUP) etc. Farmers are the most invaluable asset and the development of their skills in cultivation is of utmost importance. Such programme should be started in the Block and functional skills required in the management of agriculture should be imparted to the young farmers . This requires investment of finance which should be borne by the state government.

Traditional skills are occupation based skills developed or learnt by the individuals from their forefathers. Such skills are mostly self developed. Such traditional skills are carpentery, blacksmithy, goldsmithy, pottery, tailoring, cloth weaving , basket weaving bidi making, shoe making, masonry, etc.

It has been found that most of the artisans are illiterate. Yet they prepare different usable goods which are consumed at village level. For better production they should be imparted special training to match their occupations. All these require investment of finance which could be borne by the joint efforts of the Department of Industries of the Government of Bihar and the All India Handicraft Board. This type of programme is going on in the state of Jammu and Kashmir and over 700 handicraft training centres have been established, mostly in the Kasmir Valley ( Rajkumari, C., 1982, p.15).

Human Resources Utilization (HRU) Process :

The model ( Fig. - 8.1 ) for HRD and HRU clearly shows that after developing human resources there will be need for and urgency of providing jobs to each and every one from the working age groups of 15 - 34 and 35 - 59 years irrespective of caste, creed, religion,

sex,etc. Jobs will be either available or to be available . If jobs will not be enough for each one there will be need for generating jobs in agricultural and non - agricultural economic functions. Through this process all men and women will get employment according to their knowledge, skills, or other mental or physical capabilities. Thus, their adequate and efficient utilization in agricultural and non-agricultural economic functions of the Block will be possible and ultimately working persons will obtain their better quantity and quality of goods and earn better earnings. Then the need satisfaction of development and utilization of human resources will complete.

## Generation of Employment

Human Resources Utilization ( HRU ) is the process of matching workers and work in accordance with their levels of educational achievement. In this view planning strategy aims at the promotion or generation of full, productive and freely chosen employment for all those who are available for and seek work in the Block.

The persons considered under this purview are only from the working age groups of 15 - 34 and 35 - 59 years. The persons falling under the under -

working age group of below 14 years and over working age group of 60 and above have not been considered. Person of below 14 years of age are not for utilization, on the contrary they are to have compulsory education up to class VIII. Persons of over working age group of 60 and above are superannuated. However, avenue of employment should be kept open for the persons of these categories also, if they wish to get employment and work in the production processes.

It has been found ( vide 1984 sample figures ) that 23.43 % males and 49 % females were lying unutilized in the working age group of 15 - 59 years. They are actually dependents on the working people . They need to be utilized in the production processes.

Of the total unutilized persons of this age group 9.83% of males and 2.10 % of females were job seekers and 13.60 % of males and 46.90 % of females were redundant human resources.

Out of the total unutilized males of this age group 6 % were illiterate, 47 % were below matriculate and another 47 % were matriculate and above whereas 69 % among the unutilized females of this age group were illiterate and only 31 % were literate and educated

( mostly below matriculate ).

It has also been found that 13 % males and 16 % females to total utilized males and females respectively of the working age group of 15 - 59 years were under utilized or under employed with similar conditions of literacy.

Thus above mentioned proportions of males and females are available for work and they are seeking work. For them and for the new entrants into labour force also there is need for generating gainful employment.

Generation of gainful employment for fuller and efficient utilization of area's workforce is possible in the primary, secondary and tertiary sectors of rural economy. After generating the scope of employment in the area itself the unutilized and under utilized including new entrants into labour force may be completely absorbed. Mehta, M. M.( 1976, pp. 113 - 123 ) has suggested various measures for rapid employment promotion and intensive utilization of rural human resources. These measures are the programmes of land reclamation, land development, land settlement and land colonisation, irrigation, flood control, water control and drainage, afforestation, soil conservation, improvement of road

communications, construction and maintenance of embankments and field channels for irrigation works, construction and repairs of wells and tanks, arrangements for drinking water - supply, building of schools and village community facilities, construction of storage facilities for the agricultural produce, fertilizers, fodders, diversified farming, development of other activities closely related to agriculture, development of viable rural industries, extension of social services etc.

The Hindustan Times, ( Tuesday, Jan. 14, 1986) has also stated that substantial employment in rural areas can be generated through the development of irrigation, modern technologies, horticulture, animal husbandary, dairy farming, fishries, afforestation, small, medium and large scale industries, construction works, transport and other services etc.

Employment Prospects in Agriculture :

Agriculture is the main stay of the people of the Block which absorbs nearly 67 % of the total utilized human resources. Agricultural land is the main resource of the Block and still it may absorb a considerable part of the unutilized, under utilized human resources including new entrants into the work force.

Mehta, M. M. ( 1976, p. 113 ) suggested that "a large part of the remedy for rural unemployment and under - employment will have to be sought in the rural sector itself, and particularly in agriculture". Dutt, R. C. ( 1977, p. 34 ) also suggested that the solution of the problem of full employment of human resources must be sought in the agricultural sector itself. It is in this sector that the potential for better utilization of man-power is the highest. Ministry of Information and Broa-dcasting, India ( 1984, p. 290 ) suggested that "... . fuller employment opportunities for the rural work force have to be found within the agricultural and allied sectors, through intensification and diversification of agriculture based on expansion of irrigation and impr-oved technology".

It has been statistically ascertained for the area that there is high correlation ( $\underline{r}$ = 0.82 ) between Land Resources Utilization ( LRU ) and Human Resources Utilization ( HRU ) in the area, and the pattern of LRU affects the pattern of HRU. It would be imperative to note that out of the total geographical area ( 18555 ha.) 15056 ha. ( 81.14 % ) of land are under cultivation ( comprising 12925 ha. ( 69.66 % ) irrigated land and 2131 ha. ( 11.48 % ) unirrigated land ), 795 ha.(4.28 %) are under culturable waste including gauchar and groves,

2564 ha. ( 13.82 % ) are not available for cultivation and 140 ha. ( 0.75 % ) are under religious, historical places, etc. ( Census Figures , 1981 ).

Area under cultivation sufficiently indicates the evidence of the maximum efforts of the people to bring maximum proportion of land under cultivation. They have tried to leave no arable land unused. Only culturable waste land excluding gaucher and groves (that is very less ) can be brought under plough with the provision of irrigation and scientific treatment. This will promote additional employment opportunities but for the restricted number of unutilized or under utilized human resources . It means that the possibility to bring much additional land under cultivation is minimal.

The only possibility of promoting employments for additional human power in agriculture is through the expansion of adequate, timely and regular irrigation facility and through the introduction of modern technologies. Though the area shows high percentage ( 69.66 % ) of land under irrigation but practically the operation of irrigation is not satisfactory, on account of lack or irregularity of electric power, diesel, petrol and finance etc. Farmers have to face tremendous difficulties in getting adequate, timely and regular supply of the above inputs and HYV seeds.

With the provision of these inputs through cooperatives and institutional financing labour intenive farming would be possible resulting in double and triple cropping which will ultimately lead to the demand for additional human resources. This may employ the unutilized and under utilized man and woman power of the area. This trend may get additional impetus with the adoption of improved agricultural practices such as better and deeper ploughing , better preparation of seed-beds, proper weading, wider use of manures, efficient utilization of irrigation facilities, better quality of seeds etc.

A number of scholars have emphasized that High - Yielding Varieties ( HYV ) programme is labour intensive, and it further enhances the labour absorption capacity because they permit multiple cropping and more intensive use of land and labour.

"Empirical studies in several parts of the country have shown that exotic seeds and other modern inputs in agriculture have substantially increased the demand for labour, particularly during the peak seasons of harvesting and threshing. ... . In Ludhiana the impact of HYVP is the most pronounced, it is reported that the number of jobs has increased faster than the

rate of growth of the population", (ICSSR , 1975, p.193). In this view HYVP should be brought under practice which will ultimately promote the employment for the man and woman power available in the Block.

There is enough possibility of promoting additional employment in farming by bringing about certain changes in the cropping pattern. Soils of the area are suited to better production of cash crops like sugar cane, onion, vegetables, etc. These crops being labour intensive have a good deal of scope in generating additional employment in the area.

Frequent floods and droughts are the two major problems, which hamper considerably the standing crops in the area and bring about the agricultural activity to an end and restrict the utilization of human resources.

There is a good deal of possibility to generate additional employment in the area by controlling floods by constructing embankments along the river banks and digging channels to drain quickly the rain water from the area on the one hand and making canal from the nearby perenial river like the River Sone or diverting the Sone water into Dardha and providing adequate, timely and regular irrigation facilities on the other

hand to check the droughts. Checking of both, floods and droughts, will increase considerably the employment opportunities in the area.

Besides, several traditional activities, such as poultry farming, livestock rearing, dairy farming, fishing, etc. have good scope in generating additional employments for the unutilized and under utilized human resources of the Block. It would, however, call for a variety of organisational, administrative and policy measures which too require human resources of high quality and it can be fulfilled by the educated unemployed human resources.

Most of the above programmes will, however, require greater investment of physical resources which Ministry of Agriculture should bear.

Employment Prospects in Non-agricultural Sectors :

In fact agricultural sector alone can not be expected to absorb all the unutilized and under utilized human resources of the Block. The development and expansion of rural industries, construction works, commercial activities and other services on systematic and scientific lines may offer considerable prospects for the generation of employments in which a large

proportion of unutilized and under utilized including new entrants into labour force would get work according to their level of educational attainment and professional skills.

Development and Expansion of Village Industries :- Rao, R. V. ( 1978, p. preface ) observes that the increasing population on one hand and the limited employment absorption capacities in agriculture on the other, force us to go for industrialization in a big way as an alternative source of income, employment, etc. which ultimately leads to raising the standard of living of the rural masses.

It has been found that the participation rate of the industrial human resources in the area is very low, yet, it has increased from 2.18 % males and 1.36 % females ( 1971 ) to 3.52 % males and 9.04 % females ( 1984 ) among the total utilized males and females respectively. This upward trend shows the growing interest, attitude, aptitude, etc. of the human resources towards industrial activities. The major industrial activities existing in the villages are carpentery, pottery, blacksmithy, rice husking, flour milthing, oil crushing, creamery, Khoya making repairing, tailoring,

basket weaving tile or brick making etc. 73 % of the total male industrial workers are engaged in all these activities and 100 % female industrial workers are engaged in Khoya making and pottery. Only 27 % of the total male industrial workers are engaged in manufacturing other than household industrial activities outside the area.

This growing trend is an indicator of the development and expansion of household industries including other types of viable industries to provide additional employment opportunities for the unutilized and under utilized man and woman power available in the area.

First of all existing household industries should be encouraged providing subsidy and other essential infrastructure.

Persons who are unemployed and educated should be provided enough financial assistance including other essential infrastructure to start household industries, village handicraft and cottage industries on systematic and scientific lines which would provide employment opportunities on part-time and full time basis in the Block.

Since the study area has good transport

storage will be essential. The opening of these will promote additional employment for the unutilized and under utilized human resources in the Block.

Mehta, M. M. ( 1976, pp. 118-119 ) has suggested that the opening of some agricultural by - products based industries is feasible in rural areas and suggests new technological possibilities of utilizing many of the agricultural by - products as raw - material for the manufacturing industries. Further there are possibilities of setting up ancillary and feeder industries like the manufacture of agricultural implements and machinery, machines and hand-tools, tanning and foot wear , food and vegetable preservation, wood-processing , paints and varnish making, etc. in rural areas. Some of these also may be set-up in the Block. The operation of all these depends on timely, adequate and regular availability of electricity and transport facilities. These above mentioned industries would require greater investment of physical capital (finance ) which can be explored from the Small Scale Industries Board, Khadi and Village Industries Commission, The All India Handicrafts Board, The All India Handloom Board, and the State Government, etc.

Besides, automobile repairing and services, foot loose and electronic industries may also be set-up

along the state highway.

Thus in view of the limited potential of the organised industrial sector such type of small viable industries can be established which will ultimately play a very significant role in generating additional employments to absorb the unutilized and under utilized workers including new entrants into labour force of the Block.

Employment Prospects in Construction Works :- Though construction works do not appear to go a long way in reducing the unemployment and under employment in the area, yet there is some possibility to generate additional employments in a short-term planning . Since the area falls under flood and drought region and requires some consturction works to check the floods and mitigate the drought hazards, the type of works that could be included under such programme are the construction and maintenance of embankments and field channels for irrigation works. Other types of construction works that could be generated are construction and improvement of roads, construction and repairs of school buildings and medical health centres etc. Thus these works, if started and completed, would generate additional employment opportunities. Obviously, the financial support for such works have to come from Banks and Government departments.

Employment Prospects in Commercial Activities :- Commercial activities have great potentiality of absorbing unutilized and under utilized human resources of the area, though these require greater investment of physical capital.

The commercial activities of the Block are not so developed as only 5.22 % of working males and 0.53 % of working females were engaged in such activities. Out of the total such males or females, 12.24 % males and 100 % females were under utilized in 1984, 32.65 % males were adequately utilized and 55.10 % males were over-utilized . More than 60 % of the total commercialized manpower was literate and educated. It means that commercial activities require mostly educated persons.

The commercial activities in the Block pertain to the selling of milk and milk products (Khoya, cream etc. ); Kirana or grocery shops; selling vegetables, fruits, etc.; fair price shops, coarse textile trade, selling and purchasing live goats; selling toddy, etc. A major protion of the total utilized human resources in commercial activities is engaged in selling milk or milk products like Khoya or cream, to the nearby towns and cities.

It has been found that there are seven villages namely Oiara, Sonmai, Pabhera, Chistipur, Nataul, Panditganj and Nadwan where markets are held twice a week and some essential goods are marketed. Yet these markets do not fulfil the needs of local villagers of the area and often they have to go to the nearby towns to purchase their goods not available in their local twice-weekly markets. Larger demands and less supply requires the expansion of the existing markets which ultimately would call additional manpower in selling, transfering, exchanging, etc.usable goods or products in the market centres.

Besides, some new market centres may be opened which would generate additional employments in the area in which a portion of the total unutilized and under utilized including new entrants into work force may be absorbed.

For the development and expansion of market centres including other commercial activities some co-operative societies, government agencies, rural bank and other financing institutions should also be activised in the area. These would provide subsidy and credit to the villagers for starting their commercial activities. Some other industrial activities, ( household and others ), would also promote commercial activities

in the area in which another portion of the unutilized and under utilized labour power resources would have a fair chance of employment.

Employment Prospects in Social Services :- "Extension of social services and amenities to the rural areas in the form of better facilities for education, training, health, improved housing and sanitation, etc., could have a large employment potential, especially for the educated groups". ... . The provision of these social services and amenities in the rural areas would create a large demand for primary and secondary school teachers, doctors, health assistants, compounders, vaccinators, midwives and nurses, agricultural extension officers, agricultural assistants and field men, veterinary officers and veterinary assistants, cooperation inspectors and assistants, social welfare officers and assistants, community development programme organisers, craft teachers and instructors, and overseers, etc. The extension of social services in the rural areas would, undoubtedly, create large employment opportunities for the educated unemployed in the rural areas" ( Mehta, M. M., 1976, pp. 119 - 120 ).

Figures - 8.2, 8.3, 8.4 and 8.5 show the spatial distribution of educational and medical services

- existing and proposed. In the light of the above mentioned elements the study area too has great potential of employment opportunities for the educated unutilized and under utilized human resources of the Block. The proposed primary, middle, secondary/higher secondary schools and degree college would, no doubt, demand primary school teachers, middle school teachers, secondary/higher secondary school teachers and lecturers including non-teaching staff. This demand could be fulfilled by the educated unutilized and under utilized human resources available for and seeking job. In the employment opportunities first preference should be given to the educated womenpower available for and seeking job in the Block. Similarly, health centres, proposed, would also demand high level human resources.

A large proportion of the educated human resources would get their employment and in this way they would be efficiently and rationally utilized in the Block. Thus educational and medical facilities play a dual role in developing human resources on one hand and utilizing them on the other.

On the whole it could be said that there is enough potentialities in the area for developing human resources through the processes suggested on the one hand their rational,efficient and fullest utilization through economic activities on the other.