Human Resource Development and Vertical Mobility among Scheduled Caste Population (Harijans)

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MAY, 1983.

HUMAN RESOURCE DEVELOPMENT AND VERTICAL MOBILITY AMONG SCHEDULED CASTE POPULATION (HARIJANS).

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A Thesis Submitted to the University of Madras In Partial Fulfilment of The Requirements for the Degree of Master of Arts.

May - 1983.

A C K N O W L E D G E M E N T

The investigator is highly indebted to Tmy. G.Ramathilagam,M.A.,M.Phil., Dip. Ed Professor of Economics, Sri Avinashilingam Home Science Autonomous College for Women, for her Valuable guidance and suggestions throughout the study.

The researcher takes this opportunity to place on record her gratitude to Tmy.Geetha Hariharan,M.A., Assistant Professor of Economics, Sri Avinashilingam Home Science Autonomous College for women for her kindly help and guidance.

The investigator expresses her thanks to Dr. Saraswathi Bhatji Ph.D., Professor of Economics, Sri. Avinashilingam Home Science College for women, for her suggestions and encouragement given to the study.

The researcher acknowledges her heartfelt thanks to Dr. (Mrs.) Godavari Kamalanathan,M.S.(Cornell), Ph.D., (Madras), Principal, Sri Avinashilingam Home Science Autonomous College for women, Coimbatore for providing the facilities to conduct the study.

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I. INTRODUCTION.

Human Resource Development is the process of increasing the knowledge, skills and capacities of all the people in a society. In economic terms it could be described as the accumulation of human capital and its effective investment in the development of an economy. In political terms, human resource development prepares people for adult participation in political process, particularly as citizens in a democracy. From the social and cultural points of view, the development of human resources helps people to lead fuller and richer lives, less bound by tradition. In short, the process of human resource development unlocks the door to modernization.

Countries are underdeveloped if most of their people are underdeveloped without any opportunities for expanding their potential capacities in the service of society, Harbison and Myers (1972). If a country is unable to develop its human resources, it cannot develop much else, whether it be modern political and social structure, a sense of national unity, or higher standards of material welfare.

The scheduled castes are a segment of the Indian Population. They constitute a socially disadvantage group. In Tamil Nadu the proportion of scheduled castes to the total population is 18.2 percent. According to the census of 1981, the scheduled caste population in the state was 88.81 lakhs out of the total of 484 lakhs.

Due to distinct historical happenings the Scheduled castes and scheduled tribes of India have been left behind in development that the other communities in general have achieved so far. Vimal Chandra (1974) observes that the evil practice of untouchability was rampant in our society until a couple of decades back. It still exists at some places particularly in the rural areas of the country in its very crude from. Consequently the scheduled caste group suffers from a number of disabilities.

Researches in India and abroad have demonstrated that the economic and cultural disadvantages and poverty c characterising a group or person adversely influence the development of its cognitive ability and motivation. Thus they become increasingly poorer in their psychological adequacy to cope with the problem of life and turn

fatalistic and develop self - pity. The motivational and personality characteristics produced by deprivation results in various kinds of inadequacies in behaviour for successfully coping with the problems that are created by it. The roots can probably be traced to the general process of - socialisation. Hess (1970) rightly describes it as the " Socialisation of apathy and under - achievement ". Prof - Rath (1972) in his studies on poverty has reported significantly low aspiration levels for income, occupation and education of the poor and under privileged students in comparison to those of higher costes.

Untouchables continue to live physically segregated in ghettoes and socially discriminated in day-to-day business. The discrimination denies them opportunities of employment and therefore they remain poor eking out a megre living by manual labour. Their economic and sociocultural enviornment is characterised by low income, inequality, inadequate housing, familial deprivation and residence in slums or remote rural areas all of which have cumulatively produced a phenomenon of extreme deficit or disadvantage. According to Joseph (1973) " economic upliftment, social change and full protection are the three life sustaining and life style changing requirement of Harijans. Only when this triangle is complete, will

the Harijans receive the fruits of equality and freedom ".

In order to bring up the scheduled caste to the general standards in the country in as short a period as possible, special efforts were needed. The makers of our constitution, therefore provided specific safeguards for the purposes. Article 46 of the constitution directs." the state to promote with special case the education and economic interests of the weaker sections of the people, and in particular of scheduled castes, and shall protect them from social injustice and all forms of exploitation". The erst while British rulers of India had also recognised the need for reservation in the state services for the scheduled caste then known as " the depressed classes ".

The Government of India committed to establish an egalitarian society, has taken steps to extend the opportunities of education and employment to the scheduled caste population. The central and the State Governments, since three decades have been implementing schemes and making for educational opportunity to weaker sections, in particular. The Government had launched preferential schemes at all levels of education. At college level to accelerate their educational growth,

special eoncessions such as reservation of seats, Books, meals, clothings and loan scholarships are provided in the early stages of education. In employment also this group is given a preferential treatment in Government Offices and departments. In Tamil Nadu 18 percent of the posts are reserved for scheduled castes/Scheduled tribes. In order to ensure that 18 per cent of posts reserved for scheduled castes/scheduled tribes are filled up in Government and state public sector undertakings, a high level commities has been constituted to review the position periodically (Arumugham 1981).

The economic status of the Harijans Group is far from satisfactory, if their average percapita income of Rs.330/- (Mani, 1978) is taken into consideration. The majority of the Harijan Community consists of landless agricultural workers, a few tenant farmers and only a fraction of them are land owners. These scheduled castes are either agriculturists or artisans practising traditional arts and crafts. Some crowd the urban areas and are self - employed as hawkers, and rikshaw pullers, or, are working day labourers. Visuvathas (1964) highlighted the problems faced by state Governments in allotment of land to the scheduled castes and scheduled tribes.

The traditional artisans are in no way better than agriculturists. With the country moving towards industrialisation goods produced by them gradually finds a strunken market. Moreover production of cheap synthetic household goodsmade in factories is now competing in the market, and value of handicrafts even if aesthetically pleasing is diminishing except as curios for foreign tourists. In most states bonded labour is still prevalent inspite of Government efforts to stamp out the practice by law. Indebtedness has still the actopus like hold on this group.

A review of the existing studies on the scheduled caste communities showed that these studies have been confined to their socio - economic status and poverty conditions or the problems faced by them in education. They have not evaluated the impact of the specific educational and employment opportunities provided to them by the Government since Independence. Few studies have been related to the aspect of mobility registered by the group. Hence the investigator undertook a study on the extent of human resource development and vertical mobility among scheduled caste population.

The study covers 150 households living in both rural and urban areas of Coimbatore. The main objectives of the study are :-

1. To find out the extent of education among the scheduled caste population;
2. To asses the pattern of employment;
3. To assess their vertical mobility interms of education and employment; a n d
4. To investigate the reasons for dropout and to obtain information about their post-dropout situation.

It is hoped that the study will highlight the development that has materialised for this deprived group and indicate the direction in which the state and community should move to enhance their mobility upwards.

II. REVIEW OF LITERATURE.

The studies relating to the scheduled caste communities are discussed under the following heads :-

(A) Socio Economic Status of the Scheduled caste Communities.

(B) Enrolment And Problems In Education of Scheduled caste Students.

(C) The Sociological Characteristics of the Harijan Population.

A. Socio Economic Status of the Scheduled caste Communities:

In 1960's Researches had Concentrated more on the Socio economic conditions of the Scheduled caste population and the factors governing their participation rate.

Later, the economic status and the economic relationship of the scheduled caste communities together with the impact of developmental schemes as that of irrigation have been studied in 70's.

Shahani's (1966) Survey of the slum areas of Bombay revealed an interesting phenomenon. It showed

that even relatively, affluent people in the income group of Rs.700 - 2000 per month preferred to live in slums, though they had modern life including the all the radio, transister, a T.V. set and cooking gas, because the monthly rental was very low ranging from Rs.20 to 30. The emolvuments of both the husband and wife helped them to have better standard of living with meat, fish, eggs, bread, butter and cheese in their food., a visit to cinema and occasional entertainments with friends.

While life in the urban slum was comfortable and luxurious, it was not that bright in the rural areas.

Shasmal (1966) studied the economic condition of Bauris a Scheduled community of west Bengal. His study covered 247 families living in eight villages. It specifically analysed the land man relationship in this group. The author found that the Bauris in the past were not land less labourers to the same extent as to day. The majority of them then owned land for cultivation. But they have lost it some how, or sold, it to the members of other communities. Various reasons such as poverty, addiction of drink, ignorance etc., played important cause for loss ofland was that the property had been acquired by the

zamindar for the failure of repayment of debts. Shasmal found that currently they were without agricultural land and were in hard economic condition. As regards the distribution of labour force among different kinds of employment 54.5 per cent of the men were found to be totally dependent on day labour 28.6 per cent were contract - labourers were semi permanently in the master houses and 10 per cent were engaged in share cropping. An equal number of women 321 were also found in employment of whom 88.6 per cent were engaged in share cropping as well as working as day labour.

Mehra and Kundra (1966) had also studied the participation rates of scheduled caste and scheduled tribe population at the All India level, using the 1961 Census data. At the All India level scheduled Tribe recorded maximum participation rates in the primary sectors in respect of both males (56.7 percent) and females (48.8 per cent). In the Secondary sector, scheduled caste in respect of males (5.6 per cent) and ' others ' in respect of female (2.6 per cent) record maximum participation rates. In the territiary sector it is the Scheduled caste and not the ' others ' who record the maximum participation rates in respect of both males (7.6 per cent)and females (3.76 per cent).

It was also observed that Scheduled caste rank at least second in the order of highest participation rates in any sector; the scheduled tribe, excepting in the primary secotor are relegated to the third and last position in - respect of secondary and territiary sectors. But higher participation rate is not necessarily the index of prosperity of the concerned castes or tribes, If most they happened to be engaged effort to balance participation over sectors or industrial categories by castes or tribes or by any other community will not be in tune with the present age, yet it should not be altogether sight of in the case of those far behind in the race of progress and betterment.

Indra Yeshwanth (1971) had conducted a study on the levels of living of the slum dwellers at the Medavakkam settlement one of the 1202 slums of the Madras City. She found that 30 per cent of the households in the Slum area were concentrated in a part of the slum. Though the caste system had lost its rigidity and disintegrated in tea stalls, movie houses and schools still the non - scheduled caste people did not even prefer taking drinking water in the Scheduled caste houses. Around 90 per cent of the dwelling units were small huts with mud walls and thatched roofs. 60 per cent of the Slum workers were engaged

by middle men for doing embroidary work while the remaining eked out as living as construction labourers, coolies, hand cart pullers, coolies and as hawkers. Most of the women were working as domestic service, sweepers, cleaners and helpers and as vendors. The share of the female worker to the family income amounted to 15 - 17 per cent. Children were also sent to work indrder to augment the meagre family incomes. The consumption pattern showed that 52 per cent of the total expenditure went to food. Conventional necessities including the outlay on liquor and smoking took the second place with 32.5 per cent. The amount spent on clothes was meagre and the families depended on the clothes discarded by others.

In the food d budget rice accounted for a high proportion of the outlay namely 36.3 per cent. Tea bought from the tea stall took the second place with 20.4 per cent of the total expenditure.,followed by snacks (about 11.3 per cent) . In take of fish, meat and egg was very low so also was oils and vegetables. Consumption of milk and sugar was conspiciuous by their absence. The percapita calorie intake of calories was 1365.3 which was far less than the minimum nutritional requirement placed by the author of 2200 calories. The deficiency worked out to 38

per cent. Protein intake was also lower at 32.2 grames against the recommended norm of 36.6 per cent. The diet taken by the families was highly cereal dominated and unbalanced. There was a wide gap between the recommended level and actual intake in respect of all items except cereals.

A survey of scheduled caste families in selected districts of Maharashtra was conducted by Briji Mohan (1970). The objectives of his study were; to find out the average level of percapita income; to make an comparison of Harijan and non-Harijan on the basis of percapita income, to find out the annual income of scheduled caste family. The study revealed that the annual income of the scheduled caste family was about Rs.2,000/-. The average percapita income of the Harijan was Rs.227/- against Rs.406/- of the Non - Harijan. 63 per cent of the Harijan families as against 46 per cent of the Non - Harijan families resorted percapita annual income below Rs.300/-.

A study had been undertaken by John Kizhakedan (1975) about the socio economic aspects of the scheduled caste group in Sri Srampangi Ramanagana in the southern tip of the Bangalore city. Sri Ramanagana slum consisted of 112families with a total population of 603 all of whom

were interviewed. The majority of the Slum dwellers were Harijan (45.7) followed by the Muslims (33.6 per cent). The sex ratio of Muslim and the Harijans were the same. Rate of literacy was very low in this slum especially among women. The survey also unholds literates were more among the caste Hindus and the Christians than among the Harijan and Muslims. The illiterate had attributed in the first place to poverty and secondly to the neglect on the part of the parents.

Casual labourers had no fixed and regular income their occupation depended upon the demands of the public. To this group belonged the sweepers, cleaners, and those who were engaged in road and building construction, canal digging and so on.

Most of the houses were one - room Tenements which were thatched and mudwalled. They were poorly ventilated and over congested having six or seven people huddled in one room.

Patel (1978) in his study of the Harijan farmers of village. Anchepura Ramanagaram Taluka, Bangalore district found that the scheduled caste community owned

agricultural land between one to 3 acres. As such they constituted a class of marginal farmers with the introduction of a lift irrigation scheme the author found that the gap between Harijan and Non - Harijan farmers narrowed.

Vaheswari (1972) had compared the income earning trends andsocial status of the Harijan Community with that of the caste Hindus in Tamil Nadu. Her study was ~~put~~ part of a larger programme of Research undertaken by the Indian council of social science of research on an all India basis relating to scheduled caste. The study covered the Harijan population residing in the rural areas in the districts of chingleput, South Arcot, Tanjore and Madurai. A total of 800 Harijan house hold and 197 Non-Harijan household constituted the sample of the study.

She classified them occupation wise into four groups, owner cultivators, tenants, agricultural coolies and Non - agricultural workers and studied the trends in their incomes over a period of two decades to find out whether their standard of living had improved or not. She found that the average income of the Harijan were in all most all cases were lower that of non - harijan and that incomes were more equally distributed among the Harijan

population, than in the case of non - Harijan Population. The percentage increase in the incomes of the owner cultivators in the Harijan group was higher (by 19 per cent) than the non - Harijan owner cultivators in the first decade 60 and it was lower by 22 per cent in the second decade 1960 - 1970. However the average income of the Non - Harijan owner cultivator was (2020) much more than the Harijan owner cultivator (1586 per annum). 76 per cent of the Harijan Non - agricultural workers reported full employment. This group had a higher average income of Rs.1,132 in 1970 as against the average annual income of Rs.560 for agricultural collies and Rs.1,885 for tenants. The study showed that the standard of living of both Harijans and non - Harijans had deteriorated during 1960. But in the case of Harijan the situation was worse. In three occupations other than in cultivation the percentage increase in the income of Harijan was less than the corresponding per centage of income increase for non - Harijans.

(B) Enrolment And Problems In Education Of Scheduled Caste Students :-

Lal (1980) had conducted the survey on the educational status of Scheduled caste population in Bihar.

According to 1971 census 93.5 percent of the Scheduled caste were illiterate in Bihar. The progress of education was very low. As poverty was acute among these group the children were considered more as an economic assets. Female education was not quite popular, among these people. In certain cases taboos and prejudices acted as strong Barriers to obstract the spread of education. It was maintained that education made an individual " Semi - Limbo " who wanted to leave all that behind to forget it, to blot it out ".

Sinha (1969) had compared the perceptual skills of socially disadvantaged students with the more advantage group. The indices of disadvantage he used were, socio economic and caste status nature of schooling facilities and rural urban background. Using measures of pictorial skills where certain positional cases had to be arranged in their proper sequence and extracting a story from them he found both the advantaged and disadvantaged group of children distinctly showed a developmental trend. The efforts of schooling and caste were significant. Children from higher castes who were exposed to better schooling facilities consistently performed better than those from the scheduled caste and those exposed to ordinary schools. It was observed that in the case of ordinary schools, the higher caste or scheduled caste

differences tended to get levelled of with increase in years of schooling. But in the so called superior schools, the reverse seemed to be the case. In the lower age groups the scores of higher caste and the scheduled caste were similar. But with advancing age and years of schooling the differences god reverserd, infavour of higher castes, producing a kind of " Broom stick effect " or touch light effect ". It indicated that throwing other the excellent schooling facilities to the scheduled castes d by itself may not reduce the higher caste - scheduled caste disprity in perceptual skills. On the contrary, it may became worse.

A study was undertaken by Sr.Annefelice(1970) to find out the sociometric status of Harijan students in colleges. She evaluated the impact of education on the pattern of interation within the portalls of the academic institution. She examined whether college education had succeeded in minimising inter individual distances as a function of caste. The study was conducted in Ernakulam. The sample consisted of 523 students of which 436 were forward caste students of and 87 were Harijans. The percentage of Harijan to the total population being 16.63. The study showed that Harijans received few friendship and rejection choices than forward caste students. The study also revealed

strong in group cohesiveness. So the results ingeneral showed that caste barriers in interaction still prevail though with considerably less potency among modern educated youths in India.

Sudame and Thiagarajan (1981) did a study on the enrolment of the Scheduled caste in the arts and Science college of Tamil Nadu during the year 78 - 79 with reference to the courses of study and Districts in the State. They used the coefficient of equality to assess the extent of the Scheduled caste college education as against others. The percentage of scheduledcaste population in the state was 18 if 18 per cent of the total enrolment was from the scheduled caste then perfect equality in enrolment was deemed to have been achieved. But the coefficient of equality was far from this 100 per cent it was only 46 implying that the enrolment of scheduled caste lagged behind those of others. In colleges 18 per cent of the seats are reserved for scheduled caste students, corresponding to their proportion in the population. However only 46 per cent of these reserved seats were utilised with the remaining 54 per cent seats along with other special concessions going unutilised the researcher also found that the enrolment of the scheduled

caste students in science courses was less than in the arts courses. District wise Kanyakumari was the only district in the whole of Tamil Nadu wherein the enrolment of scheduled caste out numbered the general group. It stood first in the coefficient of equality as a whole as well as sex wise in the state.

Vidya sakar and Dusane (1982) had questioned the use of enrolment figures for comparing the progress of education of any group. According to them the real progress of education was reflected in the retention level of how many children who started at the first standard go up to a certain level of education. According to them the drop outs are the discontinuation ratio was the actual indicator of educational progress in proxy. Having found high droput rates among the scheduled caste and scheduled Tribe communities they investigated into the causes behind the apathy for education in these groups. The traditional anathema regarding education over the centuries object poverty and love for traditional occupations were identified by them as the factors responsibility for the high ratio of dropouts in the scheduled caste and scheduled tribe.

Pande (1980) in her study on irregular attendance at schools, climate, support for scheduled caste student maintained that irregular school attendance was an equally grave problem among scheduled caste children as that of their high droput ratio. She examined whether such irregular in school attendance could be explained interms of the schools experiences of the scheduled caste children studying in a majority school. She used a four cell study design to divide the eighty male school students into controlled and experimental groups. She found that irrespective of caste those students who regularly attended the school perceived the school climate to be more supportive than those who attended the school irregularly. Regular students were also found receiving a great pear support. The study did not support the hypothesis that the scheduled caste students would perceive their school climate less supportive than non scheduled caste students.

(C) The Sociological Characteristics of the Harijan Population:

Upreti and Upreti (1979) in their study on intercaste relationship in rural areas had examined the changes that had taken place in the social structure of Rural India., since the adoption of Constitution, with

reference to, the two distinct caste groups - high caste Brahmins and untouchables. In their study they collected the data from 49 families about living in two adjacent villages located in the remote interior of Kumaon in utter Pradesh. The authors found that all the 17 untouchables had a Nuclear families structures as against 50 per cent of the high caste Brahmin families reported under the Nuclear structure. The Nuclear family system had emerged among the untouchables not because of forces of modernisation but because of an economic necessity. These untouchables act as the plough men for the high caste Brahmin in return for which they got some cultivable land from them either on a temporary or an a contractual basis. So every son in the family got some land and since thisland was scattered every one put up a separate dwelling, which ultimately resulted in nuclear families.

The Untouchables were not found inferior to high caste Brahmins as far as their income was concerned. However this higher income did not improve their economic status because it was wasted away in liquor, gambling and extravagance. Thus untouchables failed in the proper utilisation of their economic resources and the Brahmin to some extent were devoid of various uses which characterise the untouchable group.

Educational wise all the Scheduled caste families were illiterate with the exception of two families while all the Brahmins were educated except two of them. The untouchables were indifferent towards their childrens education.

Regarding social relationship the author found that every untouchable family was attached to one or more Brahmin family performing several jobs for the latter. May that be as palanquin, barrers, Messengers or doing agricultural works, working in construction or removing the dead animals. However the untoucnables by the decision of their caste panchayat declined to do certain degrading jobs like removing dead animals or carrying of palanquin etc., not only that some amount of " Sanskritisation " had also taken place in the untouchable families with their women wearing sarres ornaments and men wearing secret thread and performing various rituals like that of upper caste Hindus. Thus socially the two groups were found coming closer to each other.

All these studies high light that the economic status of the scheduled caste population is rather low and

even when they happened to have good incomes on par with others they are wasted away rather than being productively used for the well being of the family. In general they are apathetic and indifferent towards education and consider their children more as economic asset. When the scheduled caste children attended the Schools they feel tne school enviornment to be hostile and dropout in a large measure. Naturally at the college level full utiliation of reservation of seats is not made. No studies have been reported so far about the endowment of this group interms of human resources and the mobility that had happened in the group. Studies on mobility were rather rare.

III. METHODOLOGY

The methodology adopted for the current study on the Human Resource Development and vertical mobility among Scheduled caste population consisted of the following steps :

1. Selection of the Sample
2. Method of Data Collection,
3. Definition of Concepts used in the study.
4. Hypotheses tested in the study
5. Tools of statistical Analysis
6. Limitations of the Study
7. Consideration, Tabulation and Presentation of Data.

1. Selection of the Sample :-

The investigator wanted to compare the extent of Human Resource Development and vertical mobility that has taken place among the rural and urban group of the Scheduled caste population. Hence the sample of the study was drawn from both areas. Kuppuchipalayam a village in the jurisdiction of Perianaickenpalayam Panchayat Union was selected for the study in view of its rural characteristics. The Urban area covered for the study was Kuniamuthur. In these two areas the households in which the heads of families of two generations - the father and the son were

alive were listed out. Such a sample frame was necessary to collect first hand information about two generations from the concerned heads of the first and second generation families. From among such households a PPS (Probability Proportion Size) sample was drawn ffom each area. The sample consisted of 50 Rural households and 100 urban households.

2. Method of Data Collection :

The investigator decided to use the method of direct personal investigation for collecting the date from the selected households. The personal interview method was effective in securing research information particularly when the respondents were a disadvantaged group, suffering from disabilities of poverty, illiteracy and social deprivation.

The interview schedule used in the study was prepared and pretested on a similar group of families in the month of September 1982. The results of the pretest indicated the changes that were necessary in the content and pattern of thequestion. On these lines the final Schedule was evolved (vide Appendix I) and it contained

questions on

a. Demographic details and health disposition.

b. Education.

c. Occupation.

d. Property ownership.

e. Food habits and consumption pattern

f. Housing facilities.

The data collection for the final study was done in the months of January and February.

3. Concepts used in the Study :

Human Resource Development :

Human Resource Development is the process by which individuals and groups add to their education and training health and nutritional status. The gains made in these fronts promote their vertical ascendancy interms of occupation and income. Hence the investigator defined the concept of human Resource development interms of the indication of education, occupation and Nutritional status as realised by the individuals and the group.

Thus the operational meaning of Human Resource Development was restricted to the components mentioned,

education occupation and nutritional status. These were measurable and quantitiable unlike health status of kinds of training that would have been received by the individuals. Levels of education are known easily, occupations are graded as Manual and Non-Manual, the non-manual category including several gradations as those in professions, business and clerical jobs. The group of Manual workers include skilled workers, semi skilled workers domestic and personal service workers, and unskilled workers. Nutritional status can also be quantified by the percapita Calorie intake of an individual which is easily estimated from the data on food consumption of the households and their family side and composition.

b. Vertical Mobility :

The amount by which the components of Human resource Development were augmented in individuals and groups from one generation to another was defined as the vertical mobility. Vertical mobility refers to the improvement found in individuals and groups interms of the components of the Human Resource Development over the previous generation.

c. Clasification of Occupations :-

Following Ronald Freedman, Hawlers, Wandecker,

Henske and Miner (1956) the investigator has classified the occupations found in the group into two broad categories Manual and non-Manual. The Manual category comprised of all the occupations which involve physical exertion and use of muscle power. All other occupations involving the use of mental facalties or brain power come under the non manual category. The gradations adopted in the non manual category were professions, business, clerical. This classification was found useful in assessing the vertical mobility, of the individuals and group interms of their occupations.

d. Percapita Calorie intake :

There is evidence that the Indian diet is sufficiently diversified and that a calorie sufficient diet provides the requisite quantity of protein. In case there is calorie insuffieiency, proteins are of little use because the protein is first used to provide the deficiet energy. Thus the problem of nourishment is essentially the problem of adequate calorie intake according to Mehta (1982). Accordingly the nutritional Status of the group was measured by the percapita calorie intake of the households. In computing the percapita calorie intake,

the calorific content of the foods used by the household was estimated by using the Nutritive values given in " Nutritive value of Indian Foods " (1981). The total calorie consumption of the household was divided by household size to arrive at the percapita Calorie intake. A sample calculation for the household is given in Appendix-II.

The vertical mobilities of the households interms of Nutritional status was given by the extent of increase in percapita calorie consumption available to the current generation over the previous generation.

Classification of families :

Families were classified into three categories small, Medium and large. Small family was defined as a family with four members. A medium family was one with five members and a large family was one with more than five members.

Classification of Household by nutritional status:

The minimum energy requirement assumed in the study was 1900 calories percapita per diem following Suhatme (1978) This cut off point was used to distinguish the nutritionally adequate household. The household were

divided into two sub-categories, the well nourished group with over 100 per cent of the calorie intake and the adequately nourished group with 90 to 100 per cent of the intake. The Nutritionally deficient household were classified into 3 groups those with first degree mal-nutrition (75-89 per cent of the minimum calorie intake). Second degree mal-nutrition (Those with 61-75 per cent of the recomended minimum calorie intake) and the third degree mal-nutrition (those with less than 60 per cent of the minimum intake.) Such classification of household of population on the basis of their calorie intake had been used in studies on Nutrition, to identify the mal nourished from well nourished and also to identify the degree of mal nutrition among population (Galvan et. al. 1955).

The range of calorie intake together with the nutritional status it implies is summed up below :

Cut off point of Energy Requirement - 1900 calories.

Range of Intake	Degree of mal nutrition.
Over 100 Percent	Well nourished.
90 - 100 Percent	Adequately nourished
75 - 89 Percent	First degree mal nutrition
61 - 75 per cent	Second degree mal nutrition
Below 60 Percent	Third degree mal nutrition.

4. Hypotheses tested in Study :

The Major hypotheses tested in the study was that the human resource endowments of the two generations of Scheduled caste are the same. The hypotheses was broken down into three constituent hypotheses :

a) There is no difference between the two generations in their educational levels.

b) There is no occupational mobility in the Group between the two generations.

c) There is no difference in the nutritional status of the house holds in two generations.

5. Tools of statistical analysis :

a) The hypotheses framed in the study were tested by using the non-parametric test of x^2 because the sample was small and the variables involved in the study were qualitative attributes. The existence of relationship if any between these attributes are best tested by using the x^2 test.

The formula is given by

$X^2 = \Sigma \frac{(O - E)^2}{E}$ following $(r-1)(c-1)$ degrees of freedom.

Where O = Observed Value

E = Expected Value.

When the X^2 value is significant at 1% level, the alternative hypotheses was confirmed, if not the null hypotheses was accepted.

A sample calculation is given in Appendix - III.

In a similar way Linear Regression was used for assessing the casual relationship if any that existed between the calorie intake and household income of the group under study. The investigator used the linear regression analysis following Thimmaiah (1982) the investigator regressed the percapita calorie intake of the house hold on the households income using the log form of the Engel function.

Logci = a + b Log Yi + Ei

C_i = Percapita Calorie intake of the ith household

Y_i = Household income of the ith household

E_i = Error term.

A positive 'b' coefficient indicated the existence of a direct casual relationship between household income and percapita calorie intake. The standard errors of the coefficients together with the levels of significance and the coefficients of determination were also found out to assess the strength of the casual relationship existing between these two variable. A sample calculation is given in Appendix IV.

6. Limitations of the Study :

Human Resource development being a comparatively new area in Economics there is difficulty in quantifying of the variables going into human resource development. For instance information on education collected from the sample house holds related to their levels of education. There was difficulty in getting the monetary equivalent of the stock of education in the group as the members had been educated at different points of time and in different schools, involving varying costs. The direct and indirect investment that had been made in acquiring education, could not thus easily be estimated. Likewise these were difficulties in estimating the returns for education and training. The income levels of the households corresponded to the

levels of education only roughly. Hence the educational mobility that had taken place between the two generations of households could only be roughly assessed by using their levels of education.

Likewise health status which is one of the crucial components of human resource development was captured in the study only indirect though the food intake of the household. It was difficult to collect the date on morbidity pattern and mortality rates of the households in the two generations. Even if such data were available they could not have been easily reduced to quantifiable variables. Hence the investigator decided to use the percapita calorie in take as an indicator of the nutritional status and thereby the health status of the group.

The data on money income about the two ganerations of household related to different points of time. The reference point of time varied from one household to the other. So no common deflator or price index could be used by the investigator to make the incomes comparable. To compensate for this limitation the investigator has assessed the asset status of the households

besides their income status.

7. Consolidation, Tabulation and Presentation of data;

The data that had been collected was consolidated and tabulated the analysis of the tabulated data is presented in next chapter on results and discussion.

IV RESULTS AND DISCUSSION.

The results of the study on " Human Resource Development and Vertical Mobility Among Scheduled caste Population " are presented and discussed under the following Heads :

1. Demographic Picture of the Harijan Households and Health Status;
2. Educational Status;
3. Occupational Status;
4. Nutritional status; and
5. Asset Status.

1. Demographic Picture of The Harijan Households :

The demographic picture of the sample households is discussed interms of its family size family composition, Child Mortality rate and age at marriage.

The population in the sample was 659 in the first generation and 613 in the second generation. Between the two generations the population had decreased by 7 per cent. When the sex ratio in the two generations is compared it is found that the sex ratio had declined

from one generation to the other. It was 677 females/1000 in the first generation and it declined to 419 females/1000 in the second generation. This decline in the female population in the scheduled caste group indicates the new - possibilities that this group now has for small families. Small families inturn improve their opportunities for human resource development.

Regarding child mortality figures 369 children were reported to have been born in the first generation households of whom seven children passed away. In the second generation out of the 313 children, one had died. The Mortality rates were thus two percent in the first generation and 0.3 per cent in the second generation. These rates are very much lower than the National Mortality Rates and the sample was able to reduce the rates of child mortality from one generation to the other.

The number of children per family was 2.4 and 2.1 in the first generation was 20 and in the second generation it was 23. for girls the average age at marriage was 16 and 19 years respectively in the two generation. It is clear that gradually the age at marriage of both boys and girls approaching the minimum age at marriage prescribed by legislation namely 22 and 18 years.

A study of the demographic variables indicated a distinct improvement in the demogiaphic of these scheduled caste household from the first to the second generation. The vertical mobility is manifested in concrete terms when we analyse the family size of the two generation households. Table I gives the distribution of families by their family size in the two generations.

T A B L E - I.

FAMILY SIZE OF SCHEDULED CASTE HOUSEHOLDS IN TWO GENERATIONS.

Family Size in Second Generation	Family size in First Generation. small	Medium	Large	Total
Small	46	24	24	94
Medium	21	9	9	39
Large	8	3	6	17
Total	75	36	39	150

Statistical analysis X^2 = 1.05, Significant at 1 Percent level.

The number of small families in the group had gone up from 75 in the first generation to 94 in the second generation to 50 per cent to 63 per cent. When the vertical mobility in respect of family size was assessed, it was found that 57 families had moved on to the smaller sizes. Out of 94 current single families their size in the current generation had reduced to 48. Out of 39 medium families in the current generation 9 families had moved down from large to Medium families. Thus vertical mobility had taken place inrespect of 39 per cent of the total households.

The hypothesis of whether or not the change in the family size was an effective indicator of vertical mobility was statistically tested using the X^2 test. The X^2 value obtain was significant at one per cent level confirming the hypotheses to a certain extent. The change in family size to some extent was indicative of the mobility that a household could attain.

Health Status :

The health status of the group was assessed with the help of the information collected about the type of sickness suffered by them and the number of school days/

Mandays lost due to indisposition this was shown in Table-II.

T A B L E - II.

HEALTH STATUS OF THE SCHEDULED CASTE HOUSEHOLDS IN TWO GENERATIONS.

Item	First Generation.	Second Generation.
Diseases Suffered:		
Chronic Diseases.	24 (16%)	9 (6%)
Ordinary Complaints.	15 (10%)	6 (4%)
Extent of Loss :		
School Days	180	60
Mandays	2130	960.

Foot Note :-

Chronic diseases include cholera, Ulcer, Sugar, Bronchitis, Saundice, Colic, Eyedefect, Fever, Hemorrohodis. Normal disease includ stomach pain, deficiency of Vitamin, Head-ache.

The incidence of sickness in the first generation families was 16 per cent and it declined to 36 per cent in the second generation. Consequently the number of school days and Mandays lost because of sickness had also perceptibly reduced in the second generation compared to first by 44 per cent.

Education :

The investigator analysed the concept of education in two senses, as a stock and as a flow. This dichotomy was useful in separating those people who were in the stream of education from others who had stopped their studies. The levels of education of the entire population covered in the study are presented in Table - III.

T A B L E - III.

STOCK AND FLOW OF EDUCATION IN THE SCHEDULED CASTE POPULATION.

S.NO.	Educational Level	First Generation completed	Second generation completed	still studying
1.	NO Education	202 (30.7%)	128 (23.02%)	—
2.	Primary	329 (59.9%)	198 (35.6%)	18 (30.5%)
3.	Middle	128 (19.41%)	119 (21.4%)	26 (44.07%)
4.	Secondary	—	39 (7.01%)	6 (10.17%)
5.	Higher education.	—	13 (2.34%)	9 (15.9%)
	Total	659	497*	59

* This excludes children, numbering 57.

Foot Note : The figures in paratheses are percentages of the Vertical totals.

The analysis of education of the whole population in its stock and flow dimensions revealed that no one in the first generation was educated beyond the middle level. In the second generation 13.5 per cent of the population had moved on to the higher stages of education namely secondary and collegiate education. Currently 11 per cent of the population were studying at various levels of education. All the families reported that the schooling for their children began either at the age of 5 or 6 - irrespective of whether they are in Rural or Urban areas. Except 8 in the second generation all others in the population had their education in Government maintained Schools.

It is will known that the home background of the scheduled caste population is not condusive for their childrens studies living in crowded tenaments lacking in privacy and a calm atmosphere for studies and lacking in amenities like electricity. The scheduled caste children find it difficult to do the home work that necessary for performing well in the classes. The investigator analysed the disabilities suffered by these people when they were doing their education, by taking into account the number of years of education that was lost by them by repeating classes and grades.

Table IV - Summarises the information about the number of academic years lost by the Scheduled castes population, when they were in the educational stream.

T A B L E - IV.

EDUCATIONAL STAGNATION IN SCHEDULED CASTE POPULATION.

S.NO.	Item	First Generation	Second Generation.
1.	Educated Persons	457	428
2.	Number repeating	128	99
3.	(2) as a percentage of (3).	28per cent	23 per cent
4.	Years lost because of stagnation	158	108.

The number reporting stagnation in education had reduced from 28 per cent in the first generation to 23 per cent in the second generation. The first generation lost 158 academic years because of the failures whereas the second generation reported a loss of 108 academic years, the extent of loss was reduced by about 32 per cent.

The extent of dropouts from the educational stream in the two generations and the causes there of were also analysed as this group of the population was a deprived group and the socio cultural complex in which it lives pushes its students out of the educational system. Table - V gives the details on droputs in the two generation of the Harijan households.

T A B L E - V.

NUMBER OF DROPOUTS IN THE HARIJAN HOUSEHOLD.

S.NO.		First Generation	Second Generation.
1.	Boys.	130 (64.4)	72 (56.3)
2.	Girls	72 (35.6)	56 (43.7)
3.	Both	202	128
4.	Dropouts as a percentage to total educated person.	44.2	29.9

The proportion of dropouts to the total number of educated persons reduced from 44.2 in the first generation to 30 per cent in the second generation. In absolute numbers the dropouts in the second generation were less than those in the first generation. In relative term the ratio of dropouts among boys has decreased in the second generation from 64.4 per cent to 56.3 per cent.

The causes for problem of dropouts were also examined and they are given in table - VI.

T A B L E - VI.

THE CAUSES FOR PROBLEM OF DROPOUTS.

S.NO.	Problem	Number mentioning in the first generation	Second Generation.
1.	Financial Problem	156 (77.2)	94 (73.4)
2.	Lack of interest, in studies among girls.	72 (35.6)	56 (43.8)
3.	To look after the sibblings.	46 (22.8)	34 (26.6)

The basic problem which was responsible for causing dropouts among the Harijan students was the financial problem in over 70 per cent of the dropouts reported in both the generations. This only indicates that whatever financial assistance that is made available to them now in the form of Government Scholarships meets only a part of the direct costs associated with various levels of education. The indirect costs of education namely the cost of preparing the child to go to the school every day in the form clothes and food are too heavy to be borne by their parents. Hence they fall out of the educational stream sooner or latter. The girls students were to their parents and therefore they eventually dropped out of the educational system. About 1/4 of the drop out children had been retained in bornes because their help was needed to take care of the sibblings when the parents were away at work.

Table VII shows the post dropout situation of scheduled caste children.

T A B L E - VII.

POST DROPOUT SITUATION OF SCHEDULED CASTE CHILDREN.

S.NO.	Item	Number mentioning in First Generation	Second Generation
1.	Gainful Work		
	Males.	122(60.4)	72 (56.3)
	Females	18 (8.9)	26 (20.3)
2.	Got married		
	Females	40 (19.8)	18 (14.1)
3.	Taking care of Siblings/ Helping in domestic chores.		
	Males	8 (3.9)	--
	Females	14 (6.9)	12 (9.4)
	Total	202 (100)	128 (100).

The post dropout situation of the children was also found out to locate the real factors behind the discontinuation of their studies and to see how they were subsequently engaged. In roughly 7 out of every 10 cases the child who dropped out was put on some gainful work so that he could contribute to the family income. Female children 20 per cent in the first generation and 14 per cent in the second generation were married after they were taken away from the schools. About 10 per cent of the dropped out children stayed at home either to take care of the younger children or to help the parents in domestic chores. Primarily it was the economic necessity that was responsible for the discontinuation of education in the middle.

Finally the investigator assessed the educational mobility of the group interms of the educational status of theheads of the households of the two generation. If the son had received a higher level of education than his father educational mobility was deemed to have taken place in that household. Details of educational mobility attained by the Scheduled caste household are given in table - VIII.

T A B L E - VIII.

EDUCATIONAL STATUS OF HEADS OF SCHEDULED CASTE HOUSE HOLDS IN TWO GENERATIONS.

Educational Level of the heads in First Generation.	Educational level of heads in current Generation.				Total
	No education	Primary	Middle	Secon-dry	Total
No education	33	29	28	17	107
Primary	3	11	8	5	27
Middle School	2	6	1	7	16
T o t a l	38	46	37	29	150

X^2 Statical Test.

X^2 = 1.05 significant at 1 per cent level.

107 heads of households in the first generation were illiterate whereas only 38 heads in the current generation reported illiteracy. The illiteracy rate among this group has decreased 71 per cent in the first generation to 25 per cent in the second generation. The literacy rate in this group is far higher than the National illiteracy rate of 36 per cent (India 1982). The population had steadily enhanced its educational levels. In respect of 94 households (63 per cent) one could notice some amount of vertical mobility in the ducational status of the head of the household. Forty five households (30 per cent) had stagnated in education. A deterioration in educational attainments was found in 11 households (7 per cent). The investigator examined whether the presence of educational mobility observed in the group was statiscally significant. The 'X^2 ' analysis showed that the hypotheses was confirmed at one per cent level. This implied that this scheduled caste population had registered educational mobility from one generation to another.

Occupational Status :

Leaving out farmers (8 households) the working force in the scheduled caste group was distributed among various occupations as given in Table : IX.

T A B L E - IX.

OCCUPATION IN CURRENT GENERATION AND MEAN INCOME.

S.NO.	Occupation	Number Engaged Men	Women	Total	Mean income permonth Men	Women.
1.	Non - Manual.					
	Professions.	3	--	3	1250	--
	Business	2	--	2	1000	--
	Clerical	32	12	44 (22.2)	480	480
	Total	37	12	49 (22.5)		
2.	Manual					
	Skilled workers	57	--	57 (56.2)	650	--
	Semiskilled workmen	22	6	28	240	190
	Domestic and personal Service Workers	5	3	8	200	180
	Unskilled workers	52	24	76 (34.9)	160	90
	Total	173 (79.4)	45 (20.6)	218		

Foot Note :

Figures in paratheses stand for percentages.

Out of 218 workers 77.5 per cent were engaged in Manual occupations. The typical worker in the scheduled caste group was an unskilled worker, the mean income of an unskilled made worker was 160 Rs. per month and for female worker was 90 Rs. per month. Nearly one out of every farm workers (26.2 per cent) was engaged as a skilled worker, with a mean income of 650 Rs. per month. The predominent occupation in the non - manual category was the clerical job which earned an individual Rs.480/- per month. Quite a few of women from this group were employed as clerks. 27.3 per cent of those in the clerical job were women. The proportion of women labour force was even less 20.6 per cent of the total employed.

These trends in employment observed in the current generation were compared with the employment pattern of this group in the First generation. Table X gives details of number of workers in each category and their main income per month in the previous generations.

T A B L E — X.

DISTRIBUTION OF LABOUR FORCE BY OCCUPATION#

FIRST GENERATION.

S.NO.	Manual Occupation	Men	Women	Total
1.	Skilled Workers	16	—	16
2.	Semi Skilled Workers	26	3	29
3.	Domestic and personal, Service Workers	117	21	138
4.	Un-skilled workers	118	29	147
	T o t a l	277	53	330

In the first generation no one was found in the non-manual jobs. Even among the manual jobs the work force was clustered in the last two grades of domestic and personal service workers and skilled workers. It is 6 percent of the entire work force was engaged in these occupation. The proportion of women employed was 16 per cent of the total. The female employment had increased from one generation to the other by 4.5 per cent. These women had mostly found jobs as clerical assistance indicating the higher levels of education that they had benefited from the employment opportunities.

To sum up the employment pattern of the second generation was more diversified than the areas of employment that were opened to the first generation. This diversification in itself suggests that the current generation had became better off in respect of education and employment.

The occupational mobility of the Harijan group between one generation and the next was assessed using - Table - XI.

T A B L E - XI.

OCCUPATIONAL STATUS OF THE HARIJAN POPULATION IN TWO GENERATIONS.

Occupational Division in Second generation	Occupational Divisions in First Generation.			
	Non-Manual	Manual	Farmer	Total
Non - Manual	—	9	2	11
Manual	—	128	3	131
Farmer	—	2	6	8
Total	—	139	11	150

X^2 Statistical Test :

X^2 = 5.76 Significant at 1 per cent level.

Out of 150 heads of households 131 were employed as manual workers in the current generation. In this group three had deteriorated from g farming to manual work had taken place in respect of 13 households only, 11 of whom had moved on to the higher non - manual occupation from their previous employment as either manual workers or as cultivators. Two of them had acquired the status of independent cultivators after they had remained as manual workers in the past generation.

The χ^2 test used for finding out whether the observed occupational mobility in the group was significant or not showed that it was statistically significant at one per cent level. This upward occupational mobility had therefore not come by chance but it had happened because of the improvement in education and training acquired by the members of the current generation.

Nutrition :

The investigator assessed the nutritional status of the households interms of their calorie intake. The households were divided in to two groups - calorie deficit households and calorie suplus households, using the norm of 1900 calories per consumer unit per day as the minimum requirement using suhatme (1978).

Suhatme held that the FAO norm of 2250 calories percapita per day as the minimum calorie requirement for the Indian population was not acceptable, as it did not take into consideration the interpersonal and intra personal variation in calorie requirement. The reasons which directed the investigator to take the 1900 calories as the minimum norm were the groupof household under study consumed food which was purchased not necessarily out of their income but also the food which they happened to collect from others for the errands done for them. A part of their days food needs was in most castes met from the second source. It followed from this tha t even if the lower norm of 1900 calorie were used it would not be under estimating the nutritional status of the households. The investigator assessed the causal relationship between calorie in take and household income using the linear Regression analysis.

The per capita household calorie intake was regressed on household income, using the log from of the Angel function.

$$\text{Logci} = a + b \log Y_i + E_i$$

Where

C_i = Precapita calorie in take of the 'i' th household.

Y_i = House hold income of the i thx house hold.

E_i = Error term.

The estimates of the sufficients together with their standard errors, levels of significance and sufficients of determination are presented in Table - XII.

T A B L E - XII

REGRESSION OF PERCAPITA CALORIE INTAKE OF HOUSEHOLD I N C O M E

S.NO.	Item	Constant a.	Coefficient b.	r^2
1.	First Generation	2.1532	0.3423 (0.1418)*	0.3783
2.	Second Generation	0.7865	0.8638 (0.1086)*	0.722

Foot Note :

Significant at 5 percent level.

The percapita calorie intake was positively associated with the household income in both the generations. Every increase in income brought about a corresponding increase in calorie in take of household however the co - efficient of elasticity was very small at 0.3423 with a very low coefficient of determination in the past generation (0.3783). In other words in the past generation a unit change in income brought about only 0.34 change in percaipita calorie in take indicating that the regression coefficient was relatively inelastic. In the current generation the coefficient of elasticity of percapita calorie intake with respect to household income was relatively higher at 0.86 with a high value for the coefficient of determination at 0.7228. A unit change in income in the current generation increased the calorie intake by 0.86 units in 72 per cent at the household. Thus the regression coefficient relating to the current generation was relatively elastic. These estimates highlight the fact that the nutritional status of the current generation depended more on the earning power of the current household. Whereas in the past generation it did not so much depend on the income earning capacity as on the doles and other such assistance which they happened to receive. The

investigator in this context found that the food intake of 58 families in the past generation was augmented by the food that these household were able to collect from outside in return by the services. As against 32 household which reported such receipt of food from outside in the current generation. The calorie intake of the foods received by them from others is not reckoned in the estimates given above and perhaps this explains why changes in income explained changes in calorie intake only in 38 per cent of the cases in the past generation.

The investigator divided the household on the basis of their percapita calorie intake into 5 different groups, signifying different shades of the nutritional status that they were inclined to. Table XIII gives details on the extent of nutrition Mal Nutrition observed in Harijan household.

T A B L E - XIII

EXTENT OF NUTRITION/MAL-NUTRITION OBSERVED IN HARIJAN HOUSEHOLD.

S.NO.	Nutritional Status	Range of in take	Not of households	
			First Generation	Second generation
1.	Well nourished	Over 100 percent	16 (10.7)	49 (32.7)
2.	Adequately - nourished	90 - 100 per cent	12 (8.0)	18 (12.0)
3.	First degree Malnutrition	75 . 89 per cent	8 (5.3)	11 (7.3)
4.	Second degree Mal Nutrition	61 - 75 per cent	26 (17.3)	32 (20.7)
5.	Third degree Mal Nutrition	Below 60 percent	88 (58.7)	41 (27.3)
		T o t a l	150	150

There was a sizeable increase in the number of well nourished and adequately nourished families in the second generation. The proportion of these families had gone up by 22 per cent. The Chronic third degree mal - nutrition suffered by the group had also come down to 27.3 per cent of the household as against 58.7 per cent of such household in the first generation. In about 1/4 of the household no consistent improvement in the Nutritional status was observed. Table - XIV gives the distribution of Scheduled caste households by their nutritional status.

T A B L E - XIV

NUTRIONAL STATUS OF THE HARIJAN HOUSEHOLDS IN THE TWO GENERATIONS.

Nutritional Status in the first Generation	Nutritional Status in the Second Generation		
	Calorie deficit	Calorie Surplus	Total
Calorie deficit	97	37	134
Calorie Surplus	4	12	16
T o t a l	101	49	150

X^2 Statistical test X^2 = 1.78 significant at 1 per cent level.

An improvement in Nutritional Status was perceptible from two trends. First the number of calorie deficit household had reduced to 101 from 134 (by 20 per cent). The relative number of these household was 89.3 per cent in the first generation and 69.3 per cent in the second generation.

Second the number of calorie surplus household had gone up from 16 to 49 (10.6 to 32.6) by 20 per cent. Out of 134 household which were having a calorie deficit in the first generation 37 had moved onto the calorie surplus category. This vertical mobility had thus materialised in 24.7 per centage of household. To examine whether the difference observed in calorie intake between the two generations was significant or not the investigator used the X^2 test, the result of the test was significant at one per cent level indicating that there was a significant difference in calorie in take of the second generation over the first generation was better than the calorie intake of the past generation.

The Asset Status of the Scheduled Caste Household :

The asset position of the household was studied for complementing the analysis of income differentials

The housing conditions of the scheduled caste group were observed for the type of roofing, flooring and lighting facilities. The nature of these facilities - available to the house owning group is described in Table - XV.

T A B L E - XV.

HOUSING CONDITION OF THE SCHEDULED CASTE GROUP

GENERATION WISE.

TYPE OF ROOFING

First Generation	Second Generation			
	Thatched	Tiled	Terraced	Total
Thatched	26	12	14	52
Tiled	4	22	4	30
Terraced	6	—	26	32
T o t a l	36	34	44	114.

Statistical analysis X^2 = 9.702 significant at 5 per cent level.

b. Type of Flooring :

First Generation	Second Generation		
	Mud	Cement	Total
Mud Flooring	32	22	54
Cement	12	48	60
Total	44	70	114

Statistical analysis x^2 = 11.0 significant at 5 per cent level.

C. Lighting Amenities :

First Generation	Second Generation		
	Kerosene Lamp	Electrical lighting	Total
Kerosene Lamp	77	26	103
Electrical lighting	2	9	11
T o t a l	79	35	114

Statistical analysis X^2 = 6.0 significant at 5, percent level.

A comparison of the housing conditions of the two generations showed that considerable improvements had taken place in the housing conditions in the current - generation. Information about the number of household articles was collected current generation possessed more than the past generation. The durables in their possession ranged from Transister, Radio, Fan, Cot, to Tables, and chairs.

V - SUMMARY AND CONCLUSION.

The Human Resource Development is defined as the process by which a group of the population add to their human capital. The components of Human Capital thus become education and health both of which raise the occupational status of the members and improve their productive contribution to the society. The current study on the Human Resource Development is centred on a particular group of scheduled caste population, namely Harijans. The study seeks to highlight the components of Human Resource development and also assess the extent of vertical mobility that had been realised by the Harijan group between the two generations, the first generation which would have been in the active group round about the period of Independence and the second generation which is in the active stage of the family size now. The study therefore indirectly measures the extent to which the various concessions given to the scheduled caste population in education and the reservations made to them in the Constitution for the purpose of increasing their education and employment - opportunities, have benefited them.

The specific objectives of the study were

1. to find out the extent of education among the scheduled caste population.

2. To investigate the reasons for dropouts and to obtain information about their post - dropout situation.

3. To assess the pattern of employment and occupation.

4. To assess the vertical mobility of the group/in terms of education, occupation and food intake.

The direct personal investigation method was used to collect the data for the study from 150 randomly selected Harijan household of the two areas, the urban area of Kuniamuthur and the rural area of Kuppichipalayam care was taken to ensure that the sampling frame of the study consisted only of those household where both the first generation head of the house hold and the second generation head of the household were alive.

The major findings of the study are

Demographic Picture of the Harijan Households :

1. The total population in the sample was 659 in the first generation and 613 in the second generation.

2. The sex ratio had declined from 677 females/1000/ in the first generation to 419 femalies/1000 in the second generation.

3. The number of children per family was 2.4 in the first generation and 2.1 in the second generation two had accepted the national norm of 2 children per each family.

4. The age at marriage of both girls and boys was approaching the minimum age at marriage prescribed by the legislation namely 22 and 18 years.

5. Demographically, a distinct improvement had taken place in the Harijan household.

6. A study of vertical mobility of the family size of the household showed that such mobility by way of smaller families had taken place in respect of 38 per cent of the total households.

7. The incidence of sickness had also declined from 16 per cent in the first generation to 6 per cent in second generation. The school days and mandays lost because of sickness fall by 44 per cent.

Educational Status :

8. The rate of illiteracy was 30.7 per cent in first generation had declined to 23 per cent in the second generation.

9. No one in the first generation was educated beyond the middle level. But we find an improvement regarding - education in the second generation in, that 13.5 per cent of its population had moved on to higher stages namely secondary or collegiate education.

10. 28 per cent had suffered from stagnation in education in the first generation whereas only 23 per cent reported educational stagnation in the second generation. The extent of loss of academic years because of stagnation

reduced by about 32 per cent from one generation to another.

11. While 44 per cent of the Harijan students in the first generation in education, dropped out at various stages in education the number of such dropouts fell down considerably in second generation to 30 per cent. Finance was the major constraint that compelled 70 per cent of the dropout students to stay away from schools. Other factors were lack of interest among girls students and the need for looking after the younger children at home.

12. In 7 out of every 10 cases the child who dropped out from school was occupied in gainful work, in both the generations. Underlining the great economic circumstances in which these families lived.

13. Vertical mobility in the educational status of the head of the household was observed in 63 households and this mobility was statistically significant at one per cent level implying that the improvement in educational status of the Harijan household had not happened on account of chance, factors.

Occupational status :

14. The employment pattern of the second generation was more diversified than the areas of employment that were open to the first generation.

15. The female employment had increased from one generation to the other by 4.5 per cent.

16. No one was found in the non - manual jobs in the first generation. Whereas we find that members of 11 households had moved from manual and farmer categories to non-manual categories of occupationsin the second - generation.

17. The statistical analysis that was done to find out whether the observed occupational mobility in the group was significant or not showed that it was significant at one per cent level. It indicated that occupational mobility had happened because of the improvements in education and training acquired by the membersof the current generation.

Nutritional Status :

18. The Nutritional status of the group was captured by the variable of percapita calorie in take per household. The food intake of the current generation depended more on the earning power of the household. The prepensity to consume food was 0.86 in the second generation as against 0.34 in the first generation. The link between income and food was tenuous in the first generation whereas it was more established in the second generation.

19. An improvement in Nutritional status was perceptable as the calorie deficit household had reduced 20 per cent and calorie surplus household had increased by a similar proportion. The mobility test shawd showed that the calorie intake of the second generation was far better than that of the first generation.

Asset status :

20. The number of farming households had gone up from 8 to 15. The improvements in the condition of housing were also statistically significant. 114 families had owned houses in the second generation as against 54 in the first generation. An improvement regarding possession of household articles was noticed.

Conclusion :

The study found that while the Harijan group had gained in its quality of Human Resource, by more education and higher food intake and had moved on to finer grades of occupations this improvement or mobility had not spread to all the households. It had been confined to a few of them. The highest mobility figures were observed in education (63 per cent) and the lowest was inoccupation (9 per cent) . In between these two were the improvements in family size and food intake

which were observed in 38 and 20 per cent of the households respectively. Thus the study showed that there was need for continuing with the policy of concessions and reservations, until all the households registered such mobility and were strong enough on their own to face open competition, against other groups of the population. The financial constraint that was observed to cause dropouts indicates that the free ships and scholarships given to the scheduled caste students should be still more attractive.

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APPENDIX

A P P E N D I X - I

1982 - 1983

SRI AVINASHILINGAM HOME SCIENCE COLLEGE.
FOR WOMEN : COIMBATORE - 43.

* * * *

Department of Economics

A study on Human Resource Development and Vertical Mobility among Scheduled Caste Population.

INTERVIEW SCHEDULE.

1. Domographic Details and Health Di-sposition.

Items	First Generation	Second generation
1. Family Size.		
2. Family Composition.		
(a) Number of Males.		
(b) Number of Females.		
3. Number of Children in the Family		
4. Number of Children who passed away.		
5. Number of Children Surviving.		
6. Age at Marriage.		
a. Male Head.		
b. Female Homemaker.		

Health Disposition of the Family in the Past 5 years

(Second Generation).

Ailment	Name and relation of the Family - members affected with age.	Number of working days/school days lost.

Major Health Problems faced by the First Generation :

Ailment	Name and relation of the family - members affected with age.	Number of working days / school days lost.

II - Education :

Education of members in the first Generation :

Serial Number	Name of the Members	Family	Age at which Schooling began.	Educational level.	Years lost because of failures.	Nature of School Institution

Education of Members in the Second Generation :

Serial Number	Name of the Members	Family	Age at which Schooling began.	Educational level	Years lost because of failures	Nature of School Institution

Particulars on dropouts.

Name of the Individual	Age at which dropped out.	Class from which dropped	Reason	How was the person subsequently - engaged.

First Generation.

Second Generation.

Problems in Educating Children if any :

Parents Problems.

1.

2.

3.

4.

Childrens' Problems in School / College (s).

1.

2.

3.

4.

III OCCUPATION (First Generation).

S.NO.	Name of the person	Age at which working life commenced.	Educational Qualification Training.	Wages per week/salary per month	Security of job Yes/NO.	Post retirement benefits.	Side line occupation pursued	Amount received	Total Income Received.

Occupation (Second Generation).

S.NO.	Name of the Person	Age at which working life commenced	Educational Qualification, Training.	Wages per week/salary per month	Security of job , yes NO.	Post retirement benefits	Side line occupation pursued	Amount received	Total Income Receiv

What is the contribution that each family member makes to the total pool.

First Generation

NAME of theworking Member	Total income	Total Contribution to the Family

Second Generation.

Name of the Working Member	Total Income	Total Contribution to the family.

IV. Property :

Details regarding Property Ownership :

Item of Property	First Generation.	Second Generation.
1. Land in (acres)		
2. House (in acres)		
3. Household articles (Specify with value)		
4. Milch animals (Numbers and value)		
5. Pigeons. (Numbers and value)		
6. Sheep/Goat rearing (NO. & Value).		
7. Poultry (No. & Value).		
8. Trade Equipment (Specify withvalue)		
9. Consumer durables.		
10. Others.		

V.A. Food Habits.

Items	First Generation	Second Generation	Quantity used per week.
Vegetarian			
Non-Vegetarian			
Items used and frequently in a week			
1. Eggs.			
2. Fish,			
3. Muttan,			
4. Beef.			
5. Park			
6. Others.			

Food Consumption Pattern.

Food Items	First generation		Second Generation		Quantity used per Week / month.	
	Whether used	No of times used in a week	whether used	Number of times used in a week	First Generation	Second Generation
a) Cereal						
b) Rice.						
2. Jowar						
3. Ragi						
4. Cumbu						
5. Wheat.						

b) Pulses :

1. Red Gram
2. Black gram
3. Bengal gram
4. Horse gram
5. Green gram.

c) Vegetables :

1.
2.
3.
4.
5.

d) Rootes and fibers :

1. Potato
2. Carrot
3. Betroot.
4. Tapioca
5. Sweet Potato.

e) Fruits :

1.
2.
3.
4.
5.

d) Milk and Milk Products :

1. Milk
2. Gurds
3. Butter Milk
4. Butter/Ghee.

e) Oils :

1. ground Oil
2. Coconut Oil
3. Gingely Oil.

f) Bevereges :

1. Coffee
2. Tea
3. Others.

g) Prepared foods :

1. Bread/Bun
2. Horlicks
3. Viva
4. Complan
5. Others.

h) Food consumption.

1. Wood
2. Kerosene
3. Gas
4. Gowdung
5. Others.

Cooking Pattern.

Item	First Generation	Second Generation.
1. Frequency of cooking, in a day.		
2. Frequency of eating.		
3. Food obtained from other households.		

Vi. Housing Facilities :

Sl.NO.	Detail	First Generation	Second Generation
1.	Owned house Rented House.		
2.	If owned Thatched Tiled Terraced.		
3.	Flooring Mud Flooring Cement.		
4.	Area Square feet Per Head.		
5.	Lighting Kerosene, Lamp.		

Electrical Lighting.

6. Current Value of the House.

7. If rented.

1. Rent per month.

2. The land owner.

EXTRACT OF THE CALORIFIC VALUE OF FOOD STUFFS

Per 100 Grams

I T E M	E N E R G Y
Rice	346
Jowar	349
Ragi	328
Cumbu	361
Wheat	356
Red Gram	335
Black Gram	347
Bengal Gram	360
Horse Gram	321
Green Gram	334
Banana	116
Milk Buffalo's	117
Butter Milk	75
Curds	60
Grounds nut oil	900
Coconut Oil	900
Ghee	900
Non - Veg	1023.

Source :

G.Gopalan and et. al. Nutritive value of Indian foods '1982.

A P P E N D I X - II.

ON COMPUTING PERCAPITA CALORIE INTAKE OF A SELECTED HOUSEHOLD (PER WEEK).

Family Size :
First Generation - 5.
Second Generation- 4.

S.NO.	ITEMS	FIRST GENERATION	SECOND GENERATION
1.	Rice	1000 grams	2000 grams
2.	Jowar	500 grams	1500 grams
3.	Ragi	500 grams	1000 grams
4.	Cumbu	500 grams	1000 grams
5.	Wheat	500 grams	500 grams
6.	Redgram	150 grams	500 grams
7.	Black gram	500 grams	1000 grams
8.	Bengal gram	--	500 grams
9.	Horse gram	150grams	500 grams
10.	Green gram	150 grams	500 grams
11.	Buffelow Milk	1500 Liters	2500 Liters.
12.	Butter Milk	2500 Liters	2000 Liters
13.	Curds	500 Liters	500 Liters
14.	Groundnut Oil	500 Liters	1000 Liters
15.	Coconut Oil	150 Liters	250 Liters.
16.	Non - Veg.	1000 grams	1000 grams.

CALORIFIC CONTENT OF THE FOOD STUFFS CONSUMED BY THE HOUSE HOLD.

	FIRST GENERATION		SECOND GENERATION.	
Rice	$= \frac{1000}{5} \cdot \frac{346}{700}$	= 98.85	$\frac{2000}{4} \cdot \frac{346}{700}$	= 247.17
Jowar	$= \frac{500 \times 349}{5 \times 700}$	= 49.86	$\frac{1500 \times 349}{4 \times 700}$	= 186.96
Ragi	$= \frac{500 \times 328}{5 \times 700}$	= 48.86	$\frac{1000 \times 328}{4 \times 700}$	= 117.14
Cumbu	$= \frac{500 \times 361}{5 \times 700}$	= 51.57	$\frac{1000 \times 328}{4 \times 700}$	= 128.93
Wheat	$= \frac{500 \times 356}{5 \times 700}$	= 50.86	$\frac{1000 \times 350}{4 \times 700}$	= 127.14
Redgram	$= \frac{150 \times 335}{5 \times 700}$	= 14.36	$\frac{500 \times 335}{4 \times 700}$	= 59.82
Blackgram	$= \frac{250 \times 347}{5 \times 700}$	= 24.79	$\frac{1000 \times 347}{4 \times 700}$	= 123.93
Bengal gram	= --	= --	$\frac{1\ 500 \times 360}{4 \times 700}$	= 64.29
Hourse gram	$= \frac{150 \times 321}{5 \times 700}$	= 18.76	$\frac{500 \times 321}{4 \times 700}$	= 57.32
Greengram	$= \frac{150 \times 334}{5 \times 700}$	= 14.31	$\frac{500 \times 334}{4 \times 700}$	= 59.64
Milk Buffelow	$= \frac{1500 \times 117}{5 \times 700}$	= 50.14	$\frac{2500 \times 117}{4 \times 700}$	= 104.46
Butter Milk	$= \frac{2.500 \times 75}{5 \times 700}$	= 257.14	$\frac{2000 \times 75}{4 \times 700}$	= 53.57
Curds.	$= \frac{500 \times 60}{5 \times 700}$	= 8.57	$\frac{500 \times 60}{4 \times 700}$	= 10.71
Groundnutoil	$= \frac{500 \times 900}{5 \times 700}$	= 38.57	$\frac{250 \times 900}{4 \times 700}$	= 321.43
Non - Veg .	$= \frac{1000 \times 1023}{5 \times 700}$	= 292.29	$\frac{1000 \times 1023}{4 \times 700}$	= 365.36
Total		1196.93		= 2224.2

A P P E N D I X - III.

X^2 - TEST.

EDUCATIONAL STATUS OF THE HARIJAN HOUSEHOLDS.

OBSERVED FREQUENCY.

Educational level of the heads in first Generation	Educational level of heads in Second Generation.				
	No.education.	Primary	Middle	secondary	Total.
No education	33	29	28	17	107
Primary	3	11	8	5	27
Middle School	2	6	1	7	16
T o t a l	38	46	37	29	150

EXPECTED FREQUENCY.

Educational level of the heads in First - Generation.	Educational level of heads in second - Generation.				
	NO education	Primary	Middle	Secondary	Total
No education	27	33	26	21	107
Primary	3	11	8	5	27
Middle	2	6	1	7	16
T o t a l	32	50	35	33	150

$$X^2 = \frac{\Sigma (O-E)^2}{E}$$

$X^2 = 3.76$

$X^2 = 3.76$ greater than X^2 0.01 = 0.872.

A P P E N D I X - IV

LINEAR REGRESSION ANALYSIS A SAMPLE CALCULATION.

STATEMENT ON THE PERCAPITA CALORIE INTAKE AND HOUSEHOLD INCOME OF SELECTED 30 SCHEDULED CASTE HOUSEHOLDS IN THE CURRENT GENERATION.

S.NO.	Income	Percapita Calories intake.
1.	600	1962 . 28
2.	850	1925 . 47
3.	100	356 . 54
4.	750	1973 . 87
5.	250	425 . 23
6.	200	565 . 43
7.	700	1989 . 68
8.	300	895 . 78
9.	700	1954 . 22
10.	350	1442 . 97
11.	300	672 . 45
12.	650	1992 . 78
13.	480	964 . 86
14.	250	596 . 71
15.	650	1962 . 86
16.	300	834 . 24
17.	550	1984 . 09
18.	500	1682 . 85
19.	450	526 . 49
20.	650	1976 . 48
21.	650	1969 . 24
22.	450	543 . 57
23.	450	679 . 19
24.	450	1942 . 82
25.	450	659 . 64
26.	650	1962 . 49
27.	450	1962 . 42

S.NO.	Income	Percapita Calories intake.
28	200	459 . 26
29.	450	1552 . 27
30.	350	1152 . 62.

Regresion Equation :-

Logci	=	a + blogyi + Ei
Ci	=	Percapita calorie intake of the i th Household.
Ei	=	Household income of the ith household.
Ei	=	Error term.

C A L C U L A T I O N .

Y	$(Y - \bar{Y})$	Y^2	X	$\bar{X}$	x^2	
Y	Y	Y^2	X	X	x^2	xy
3.2927	0.2355	0.0555	2.8782	0.1287	0.0166	0.0303.
3.2844	0.2272	0,0516	2.9294	0.2799	0.0783	0.0636
2.5520	-0.4536	0.2058	2.0000	-0.6495	0.4219	0.2946
3.2952	0.2380	0.0566	2.8751	0.2256	0.0509	0.0537
2.667	-0.3895	0.1517	2.3917	-0.2516	0.0633	0.09801
2.7523	-0.3049	0.0930	2.3010	-0.3485	0.1215	0.1063
3.2989	0.2417	0.0584	2.8451	0.1956	0.0383	0.0473
2.9522	-0.1050	0.0110	2.4771	-0.1724	0.0297	0.0181
3.2909	0.2337	0.0546	2.8451	0.1956	0.0382	0.0457
3.1593	0.1021	0.0144	2.5441	-0.1054	0.0111	-0.0108
2.8277	-0.2295	0.0527	2.4771	-0.1724	0.0297	0.0396
3.2996	0.2424	0.0588	2.8129	0.1634	0.0267	0.0396
2.9845	-0.0727	0.0053	2.6532	0.0037	0.0000	-0.0003
2.7757	-0.2815	0.0792	2.3979	-0.2516	0.0633	0.0708
3.2930	0.2358	0.0556	2.8129	0.1634	0.0267	0.0385
2.9213	-0.1359	0.0185	2.4771	-0.1724	0.0297	0.0219
3.2961	0.2389	0.0571	2.6990	0.0495	0.0025	0.0118
2.7214	-0.3358	0.1128	2.6532	0.0037	0.0000	-0.0012
3.2960	0.2388	0.0570	2.8129	0.1634	0.0267	0.0390

3.2943	0.2371	0.0562	2.8129	0.1634	0.0267	0.0387
2.7353	-0.3219	0.1036	2.6532	0.0037	0.0000	0.0012
2.8320	-0.2252	0.0507	2.6532	0.0037	0.0000	-0.0008
3.2885	0.2313	0.0535	3.2175	0.5680	0.3226	0.1314
2.8193	-0.2373	0.0563	2.6532	0.0037	0.0000	-0.0009
3.2930	0.2358	0.0556	2.8129	0.1624	0.0267	0.0385
3.2792	0.2220	0.0493	2.6532	0.0037	0.0000	0.0008
2.6621	-0.3951	0.1561	2.3010	-0.3485	0.1215	1.377
3.1909	0.0179	2.6532	0.0037	0.0037	0.0000	0.0005
3.0619	0.047	0.0000	2.5441	0.1054	0.0111	0.0005

$$\hat{\beta} = \frac{\Sigma x y}{\Sigma x^2}$$

$$= \frac{1.3751}{1.5930} = 0.8638$$

$$\hat{\alpha} = \bar{Y} - \hat{\beta}\bar{X}$$

$$= 3.0572 - (0.8638)\ 2.6495)$$

$$= 3.0572 - 2.2886 = 0.7685$$

$$Ci = 0.7685 + 0.8688\ Ei$$

$$\text{Var}\ \hat{\beta} = \frac{u}{x^2}$$

$$\sigma^2 u = \frac{e^2}{n-2} = \left(\frac{Y^2 - B\ X^2}{n-2} \right)$$

$$= \frac{1.9026 - (0.8638)\ (1.592)}{30 - 2}$$

$$= 1.9026 - (0.8638)\ (1.592)$$

$$\frac{1.9026 - 1.3752}{28} = \frac{0.5274}{28} = 0.0188$$

$$\text{Var } \hat{\beta} = \frac{0.0188}{1.592} \doteq 0.0118$$

$$\text{S.E. } \hat{\beta} = \text{Var } \hat{\beta} = 0.0118 = 0.1086$$

$$z^* \hat{\beta} = \frac{\hat{\beta}}{\text{S.E.}\hat{\beta}} = \frac{0.8638}{0.01086} = 7.954.$$

$z^* \hat{\beta} > 2$ = Statistically significant at 5 per cent level.

$$r^2 = 1 - \frac{\Sigma e_i^2}{\Sigma y^2}$$

$$= 1 - \frac{0.5274}{1.9026} = 1 - 0.2772$$

$$= \underline{0.7228.}$$