Wonders are many and none is more wonderful than MAN"- Sophocles (495-406 B.C.)

Man's importance has been beautifully portrayed, in the above lines, which were quoted ages ago. The 4 Ms-Material, Machines, Money and Man, form the crux of an industry. Supply of the first 3 factors is rather limited, but human resources i.e. Man, are available in plenty, especially in our country. Further, whereas other resources have limitations, man has unlimited potential. Hence, a realisation has dawned, upon the horizon of industry, that the most valuable asset- the human resource- needs to be developed.

In the early years, an individual had to look to his development, himself. Now, the organisation, state and the nation, arrange for his all round development, thus putting him in new light. He is now considered, as a factor of production- an economic resource, to be developed and used for the material and economic development, of the nation.

Over the years, the attitude of organisations, towards their reservoirs of untapped potential, has changed. They have

realised, that the employee, is not just one faceless element in their whole set up, but an individual asset. He is increasingly being viewed as a "source of ideas" and someone, who is capable, of contributing much more, towards productivity of the organisation, than he is given credit for.

A collaborative office atmosphere, an opportunity to contribute to a meaningful job, a reassurance that the employee's ideas matter, generate fresh enthusiasm and hard work, and extract extraordinary things, from the ordinary jobs, of employees. Three Magic words- "Human Resource Development" have brought about, this information, in the corporate sector, and embody the key to improving productivity.

What is H.R.D.?

The term H.R.D., was initially introduced, by Mr. Leonard Nadler,\textsuperscript{2} at the Miami conference of the American society for Training and Development (A.S.T.D.).

Nadler defines HRD as:

\begin{itemize}
  \item[a)] Organised learning experiences
  \item[b)] In a defined period of time
  \item[c)] to increase the possibility of
  \begin{itemize}
    \item 1. improving job performance
    \item 2. growth.
  \end{itemize}
\end{itemize}

Thus, according to Nadler, HRD is mainly concerned with well planned, defined and organised training, imparted to the worker, with a view to increase his knowledge, information and skill/ability, in performing his job. This training imparted, is preplanned by the organisation, and is not incidental, as its main intention, is to enable the employee, to do his present job, in a better manner, after being well equipped, with the tools of information and skill, through H.R.D.

Another object of training, is to develop, the capacity and ability of the employee, so that, he can be competent enough, to climb up the progress ladder, in the organisation, and occupy responsible positions. Thus, his growth, not only related to these positions, but also with respect to a variety of non job related learning experiences, which he seeks to achieve, for his inner satisfaction, is ensured, through systematic HRD efforts.

An important aspect of Nadler’s definition, is that, these learning experiences, must be imparted to be worker, in a definite period of time, which may be either 15 minutes or 1 year or more. Time fixation, is of importance, so that, after the expiry of the fixed period, evaluation of the training imparted, may be done, to find out its benefit. In the normal course of routine day to day work, the worker learns many things, on the job, everyday. But this does not imply HRD.
Training should be preplanned and intentional and should be imparted, during a fixed period of time.

Further, according to Nadler, HRD cannot assure that as a result of the learning experiences, performance will change. Performance is affected by many forces, most of which are beyond the control of HRD people. Hence, he says, that organised learning experiences, increase the possibility of improving job performance and do not guarantee it.

A study of this definition, gives an idea that HRD is basically related to training only, whereas, in fact, HRD is a much broader concept. HRD actually involves, all those activities, of which training is one, directed towards the all round development, of the individual. In Nadler's definition much light has been thrown, on the "learning experience" and hence importance of training, has been over estimated. In the process, other aspects like career planning and counselling, organisation development, performance appraisal, are overshadowed, and do not find a place, in this definition.

Secondly, Nadler's definition, refers to organised learning experiences, in a definite period of time. Evidently, his reference is to training, which may be imparted, during a fixed period. However, HRD is a continuous process and no time limit, can be attributed to it. At no point of time, can it be said, that HRD is complete and need not be implemented further.
Thus, Nadler has been mistaken on this point, as he limits the scope of H.R.D.

An important objective of H.R.D., is to exploit the inherent potential of the employee, in such a manner that it is mutually beneficial - both to the individual and to the organisation he works for. Though Nadler's definition includes "growth" as one of the objectives of H.R.D., it gives an idea, that only the individual's benefit, is achieved. There is no mention or inference, to the organisation's benefit. In fact, systematic H.R.D. efforts, will be undertaken by the organisation, only when it will be able to gain something, through the gains of its employees. This two-way beneficial relationship, is lacking in Nadler's definition.

Douglas T Hall, defines HRD, as "the identification of needed skills and active management of employee learning, for the long range future, in relation to explicit corporate and business strategy".

This definition of H.R.D., also stresses the need of identifying, the inborn skill of an individual, and developing it, through relevant training sessions, with the long term gain of the organisation, in view. In every individual, is an hidden energy and enthusiasm. A curtain of doubt and fear covers it.

thereby preventing its exposure. Hence, in Hall's opinion, it is the organisation's duty, to locate such skills and utilise them, for the organisational benefit.

Whereas Nadler's definition of H.R.D., stressed on the individual's growth and development, through training, in contrast, Hall's definition stresses, on the organisation's benefit, from an H.R.D. programme. Both the definitions, recognise the dominating role of training in an H.R.D. programme. But, the aspect of mutual benefit, is ignored by both the authors. Further, importance of training, has again been overrated, thus conveying an idea that H.R.D. means training only.

Schelm defines H.R.D. as "aiming at matching the organisational needs for human resource, with the individual need for personal career growth and development.

Schelm rightly believes that no organisation can achieve its goals, without the help of the human factor. So also, an individual desires to work for an organisation, for his personal satisfaction, career growth and development and exhibiting his ability. Thus, both the organisation and the individual depend on one another, for attainment of their goals. H.R.D., according to Schelm, is achieved at the point,

where the needs of both the parties are at "break-even" point i.e. evenly matched.

Though Schelm's definition, justly highlights, a very important goal of H.R.D., it appears to be a little vague, as it does not explicitly mention or refer, as to how individual growth and development, may be achieved. The talent of the individual, has to be identified, nurtured and exploited, on a continuous basis, so that his aspirations are achieved, but Schelm makes no mention of this process.

However, this definition broadly covers, the essence of H.R.D. and does not give misleading beliefs that H.R.D. is training, as indicated by Nadler and Hall.

The noted economist, Myrdal,\(^5\) has comprehensively defined H.R.D., in terms of its components, as follows.

1) Food and Nutrition  
2) Clothing  
3) Housing and Sanitation  
4) Health facility  
5) Education  
6) Information Media  
7) Energy Consumption  
8) Transport.

When an individual's need, with respect to the above eight components, is satisfied, Myrdal believes that there is Human Resource Development. The first three components, are related to basic essentials of a human being, whereas the

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remaining, are necessary for his development, comfort and making his life worth living. Hence, when all these needs are satisfied, there is H.R.D., in the true sense.

In comparison to the definitions given earlier, this definition presents, a completely different outlook, of the concept of H.R.D. All the eight components, included in this definition, are surely essential for human resource development. But they do not mean H.R.D. and no indication of the organisational efforts, aimed at exhibiting the creative abilities of the employees, for mutual benefit, is made. These 8 components, are required for the survival, comforts and quality life of the human being. But the term H.R.D., is more meaningful, in relation to a "human resource", a very crucial contributor towards productivity. Hence, H.R.D. should include, in addition to all these eight components, all such programmes and activities, which are designed to exploit the inherent talent, hidden in this productive factor. So though, this definition is a comprehensive one, it is lacking in certain essentials, as aforementioned and hence is incomplete.

Similarly, the World Bank also gives a narrow, component wise definition, which includes only 3 items. (1) Health (2) Nutrition & (3) Education. It reduces Myrdal's eight components to three.

Though this definition specifically mentions three components only, it implies much more, as good health is a result of good housing, sanitation, clothing and nutrition. Education is a must, to broaden the individual's outlook, for his all round development. Hence, H.R.D. denotes development of the individual, through these 3 components, as stated by the World Bank.

As in the case of the definition given by Myrdal, the World Bank's definition, seems incomplete. Health, nutrition and education, will certainly develop an individual—physically and mentally. However, as a resource creating factor, this valuable resource will not be sufficiently motivated, to exhibit his best and as such, his development will not reach the optimum level.

In the words of Harbison and Myers, "H.R.D. is the process of increasing the knowledge, skills and the capacities, of all the people in a society."

This broad definition, confirms an all round improvement, in the ability, knowledge and aptitude, of all the people in society i.e. all round development of the human being. Through H.R.D., there should be an improvement in the skills, an upgrading of their talent and nurturing of the

abilities, of each member of the society. This definition is made, from the national viewpoint.

In fact, H.R.D. covers all systematic and specific efforts, of the organisation, the end purpose of which, is a spurt in the productive capacity of individual and thereby, the organisation. All such organisations, form the nation. This definition, is more generalised and refers to the purpose of increasing the knowledge and capacities of the people. The important aspect, of mutual benefit, is missing in this definition also.

In comparison to all the foregoing definitions, a more concise, explanatory and comprehensive synopsis, of the H.R.D. concept, has been done by Prof. T.V. Rao. In his opinion "H.R.D. is a process, by which, the employees of an organisation, are helped in a continuous and planned way to:-

1) acquire or sharpen capabilities required, to perform various functions, associated with their present or expected future roles.

2) develop their general capabilities required, to perform various functions, associated with their present or expected future roles.

3) Develop an organisational culture, in which the supervisor subordinate relationships, team work and collaboration among sub units, are strong and

contribute to the professional well being, motivation and pride of employees".

In Prof. Rao's opinion, H.R.D. is a continuous process and not just a set of mechanism or techniques. Various inputs like training, counselling and organisation development, are used to initiate, facilitate and promote the H.R.D. process, in a continuous way.

The hidden potential, in the human being, according to Prof. Rao, can be exposed and made active, only by creating an atmosphere, which stimulates such exposure by identifying, bringing to surface and utilising this potential, for his development. To get the best out of the employee, an organisation has to figure out, ways and means, of improving the quality, with a capital 'Q' in his work life and H.R.D. assists in this process.

Enthemkuzhy also meaningfully portrays, the concept of H.R.D., in his definition, "H.R.D. is a process, undertaken to promote, the intellectual, moral psychological, cultural, social and economic development of the individual, so as to help him achieve, his highest human potential, as a resource for the country. It means a total all round development, of the person, so that he contributes his best, to be community and the nation".

Thus, in the opinion of Enthemkuzhy, from the national viewpoint, the H.R.D. process ensures, all round development of the human being, through which, he can contribute his best, not only to his organisation, but also to society, community and the nation. In this definition, Enthemkuzhy gives a relatively generalised meaning of the term H.R.D. but does not specifically convey the essence of H.R.D.

Practically all the aforementioned definitions, convey an idea that H.R.D., as the name implies, is meant for the individual. But all individuals together make an organisation. Hence, the fact that organisational benefit is achieved through individual efficiency improvement, has been overlooked by the aforementioned authors. Especially, for a developing country like India, which has limited material resources, the only solution, for its speedy development, is effective H.R.D. Enthemkuzhy hints at this aspect and considers the human being, as a resource for his nation.

In the researcher's opinion, H.R.D. is a process, by which, the activities of individuals are planned, directed, regulated and controlled, in such a manner, that they act as a catalytic agent, to exhibit the inherent potential of individuals, kindle a desire in them, to extend wholehearted, willing co-operation and thus improve their quality of work life, from the resulting productivity improvements. The final
effect, is an improvement in the work environment, from which, both the individual and his organisation, benefit.

For an able sum up of the concept of H.R.D., it is an improvement in the skills, abilities, knowledge and attitude of individuals, which aim at increase, in individual and organisational productivity and thus make life worth living.

Human Resources and Human Relations:

Of the three key resource factors, determining the productivity of a nation-human, physical and financial, the role played by the human resource factor, is the most critical one. A thing is a resource, only if it has the capacity, to satisfy some human want. Man has been endowed with mental faculties, not granted to other human beings. This differentiates him from others. 10

A country may possess abundant and inexhaustible, natural and physical resources, the required machinery and capital equipment but unless there are men, who can mobilise, harness and properly utilise these resources, for the production of goods and services, the country cannot advance economically. Thus, human resource and other resources natural and physical, are like the two sides of the same coin. Both are.

indispensable and dependent on one another. Without one, the other, cannot be optimally utilised.

Man, not only acts as a resource, but also as a resource creating factor. As a resource, he is an inexhaustible store of energy and skill. As a resource creating factor, he uses this energy, skill and his creativity, to convert nature's neutral endowments, into resources, with the help of the knowledge, gained through the education process and training. He invents new resources and finds out, ways and means, of making the old resources, more useful.

The economic value of a human being, as a resource, goes to make for the achievement, of the key result areas of an enterprise. "A developed person is a value adding person as opposed to being a value substracting person".11

"Knowledge, is the only instrument of production, which is not governed by the Law of Diminishing Marginal Returns".12 The more the use of human resources, the more is the sharpening of human ability and creativity. In fact, human capital deteriorates in value, when it is idle, since unemployment impairs the skills that workers have acquired.

Maximum use of human ability, ingenuity and skill, can be achieved, through effective, meaningful and thoughtful human

Human relations programmes. Since approximately 1930, the general patterns of formal organisations, created by the Scientific-Management movement, have been modified and adopted, by an approach known as "Human Relations".

Human Relations, is a plain speaking guide, to the effective management of people—the only resource that can answer back. A human relations programme, deals with industrial relations, rewards for work, management development, training, together with various aspects of the work environment and behavioural sciences.

The term "Human Relations" refers to "all the interactions that can occur among people, whether they are conflicts or co-operative behaviour".  

The essence, of an effective human relations programme, is greater productivity, through greater human satisfaction, within the organisation.

In the words of A.J. Dubrain, "Human Relations, is the art and practice of using systematic knowledge about human behaviour, to achieve organisational and personal objectives". It overlaps considerably, with organisational behaviour, the study of individual and group behaviour, in an organisation.

Human relations, is essentially, a less technical and more applied version of organisational behaviour.

Thus, improvement in organisational productivity, by improving human satisfaction, is the core of a human relations programme. This approach seeks to improve employee morale and motivation, through employee participation in decision making and effective two-way communication. Here, the close relation and interconnection, between human relations approach and an effective H.R.D. programme, is obvious. H.R.D. also aims at improving employee morale and enables him to be a willing partner, in the growth of the company.

Increasing emphasis, on both human relations and human resource development, is a recent phenomenon. Increasing awareness of employment and scarcity of skilled and experienced manpower, have brought the human factor, in limelight. Elton Mayo's 15 "Hawthorne studies" in 1930 and Abraham Maslow's 16 studies in 1954, led to increased emphasis on the psychological factor, in human relations. Maslow believed that truly healthy people, satisfied their highest psychological needs and were self-actualisers, fully integrating the components, of their personality or self. From his study, he concluded that the need for self actualisation, is something we have, from the first

moment of our lives and that it can serve as the motivating force, for high achievement.

This is exactly what HRD aims at. As the individual, has a high sense of curiosity and creativity and his need for self actualisation, is deep rooted, effective H.R.D. efforts, aim at exploiting his creative potential and helping him to realise his need, for self actualisation. Thus, a human relations programme and H.R.D. programme, go hand in hand and are interdependent. Both have a common purpose i.e. motivating individuals to live creatively and actively and making them fully functional individuals.

In the words of Fr. R. D'Souza S.J., 17 "Recent research has identified a sense of control, a sense of commitment, of challenge and coherence as personality factors, that can make for competence appropriate striving, productive orientation and authentic living". Motivating and directing these essential qualities, in an individual, form the core of a human relations and H.R.D. Programme, which are thus interconnected on basic issues.

Human Resource Management (H.R.M.), Human Resources Planning (H.R.P.), and Human Resources Development (H.R.D.):

The terms Human Resource Management (H.R.M.), Human Resource Planning (H.R.P.) and Human Resource Development

(H.R.D.) have, at times, been used interchangeably, by some organisations. However, there is some difference in the meaning of these terms used, though they are all inter related.

While H.R.P. deals with the future aspect of manpower requirements, of the organisation, for its various jobs, H.R.M. deals with effectively managing the work force, at present. The essence of H.R.D., is growth and development of the individual and thereby the organisation, at present, in future and for all times to come. Thus, H.R.D. is primarily concerned, with the individual's (employee's) benefit and in the process, benefits for the organisation too. H.R.P. and H.R.M., however, are organisational strategies, which can become more meaningful, if the growth of the employee is effected.

H.R.M.:

"The term personnel/human resource management, comprises of the managerial activities involved, in planning for recruiting, staffing, training, developing, rewarding, utilising and maintaining human resources". 18

Drucker defines H.R.M. as a "methodical and systematic discharge of all the activities, that have to be done, where people are employed, especially in large numbers, their

selection and employment, training, medical services, the cafeteria, safety, the administration of wages, salaries and benefits and many others".\(^{19}\)

According to these definitions, H.R.M. is related to all the activities pertaining to the personnel of the organisation, right from their recruitment. Training and developing of human resources, is also a part of these definitions, related to the employees of an organisation. All managers have normally to perform these functions, to some degree, and are directly responsible for managing their employees, efficiently.

As mentioned before, H.R.M. deals with the present. Broadly, it covers union/labour relations, safety and health services, administration of discipline, correct staffing levels and placing the right person on the right job, recruiting, wage and salary administration and employee assistance. The primary goal of H.R.M., in any organisation, is to facilitate organisational performance.

H.R.P.:

H.R.P. is concerned with, determining the personnel requirements, at present and in future, and the ways and means, of meeting those requirements, so that the plans of the organisation are carried on smoothly. It deals with the

qualification of the type of skills, abilities and people, required to perform the various functions of the organisation, efficiently. Based on past experience, the organisation, projects and forecasts its future personnel requirements and hence deals with the future aspect.

"Manpower planning has been defined as the systematic analysis of human resources in future, directed to minimise uncertainty and surprise and to eliminate mistakes and wastages. Thus, H.R.P. is concerned with seeking to optimise, the manpower part of the total system. Basically, it involves the ability to determine, with reasonable accuracy, the type of people it needs to recruit, without wasting the skills and abilities of the human force, at any stage and recognising means of exploiting opportunities, for the better use of manpower.

Interrelation Between H.R.D./H.R.M./H.R.P.:

Prof. T.V. Rao's definition of H.R.M., vividly brings out the inter-relationship between H.R.D., H.R.M. and H.R.P. According to him "Effective Management of human resources, implies identifying right kind of people, socialising them in the right direction, training them and assigning tasks and roles that bring out their best, motivating them to put effort

and perform well, creating conditions, where the employees enjoy work and have a sense of fulfilment".

Thus, this definition covers H.R.D., H.R.M. and H.R.P., when the company identifies right kind of people, to fit into its various jobs. It is, in other words, planning for its future manpower requirement. Once they are recruited, it undertakes to train them in the right direction, according to the needs of the company and job specifications and continues to effectively manage the entire work force and direct it, in the desired manner. Here, H.R.M. is involved. Its effort to motivate employees, to bring out their best and perform well and to create conditions, where employees enjoy work and have a sense of belonging and achievement, reflect its developmental efforts, where H.R.D. comes into picture. It is concerned with growth and development of the individual.

Hence, no clear demarcation can be made between these three terms which are, to a great extent, inter-related. Effective H.R.P. leads to efficient H.R.M. and both together contribute to constructive H.R.D.

H.R.D. Interventions:

"An organisation's performance and resulting productivity are directly proportional, to the quantity and quality of its human resources". 22

22. Mathur B.L., op. cit., pg. 89.
This being so, the more the improvement in the quality of human resources, the more the improvement in the organisation's performance and productivity. The H.R.D. concept, strives to bring about this improvement in the quality of human resources, in time, through a series of continuous, uninterrupted interventions. For example, systematic H.R.D., efforts, help to create an encouraging, congenial and developmental climate, in the organisation. This is possible through improvement in leadership abilities, effective communication and team spirit, heightened morale and enhanced motivation, the end result of which, is a boost in productivity. Every individual in the organisation, works willingly towards the achievement of its goals, has a sense of pride and belonging to the organisation he works for, feels gratified due to the values attached to him and in the process, exhibits his inherent ability, to the maximum extent. This process leads to better utilisation of the company's working capacity, lesser absenteeism, turnover, fewer accidents and more job satisfaction, finally resulting in improved productivity. This is the essence of H.R.D. and it aims at achieving this end through its various interventions, as follows:-

1) Training
2) Performance appraisal
3) Career Planning and counselling
4) Organisation development
5) Employee relations and their quality of work life
6) Organisation communication
7) Quality circles
8) Rewards
9) Human resources information.

The word 'Man power' includes the words 'Man and Power' which refers to the power-physical, mental, intellectual and spiritual, inherent in him. H.R.D. aims at exhibiting this power, advantageously. The main contention, in effecting the above interventions, is that the vast inherent potential of an individual, a valuable resource, can be tapped, to the advantage of both, the individual and his organisation. Wholehearted support and co-operation from the management and its employees, is a must for successful functioning of any H.R.D. programme.

Training:

Training relates to imparting specific skills, for specific objectives. The need to train and prepare people - the social carriers of technology- cannot be overemphasised. Without qualitative improvement in the human resources, together with the physical resources, a nation cannot improve the standard of living of its masses.

Training is the most vital tool of H.R.D. A trained person, is certainly better equipped to face a complex situation, than an untrained one.
According to Dunn and Stephens\textsuperscript{23} "Training refers to the organisation's efforts, to improve an individual's ability, to perform a job or organisational role and development refers to the organisation's efforts (and the individual's own efforts) to enhance an individual's abilities, to advance in his organisation, to perform additional job duties".

The purpose of training in industry, is to enable employees, to undertake their jobs, with responsibility and efficiency. Through training, they get an idea of their job dimensions and its responsibilities. Education develops the basic mental abilities of labour and thus improves the quality of the labour force, whereas training improves the productivity of the labour force, by developing specific skills required for economic growth.

Employees play a key role in the growth of the organisation. Hence, their mental make up and their professional skills, will decide their productivity in the organisation.

If a country has a large population, it does not necessarily mean that she is rich in "human resources". The people of a country become a 'resource' only when appropriate

doses of knowledge, skill and attitude, are provided to
them, for transforming them into a productive work force.
This transformation is possible, through training and
development. Thus, training is information, instruction and
inspiration.

One often comes across the remark that India is, the
world's third largest reservoir, of technically trained
manpower. However, it is difficult to identify the 'right
people, for many functions and levels, not only in terms of
their background, but also their attitudes and work ethos. The
basic idea behind training, in any industry, is to reduce waste
in the use of men, money, machines and materials. Training is
important, not only to the worker, supervisor and the department
head, but also to the operating managers and the top
executives.

Hence, the development of human resources, is of utmost
significance. While the 'raw' human resource, can make only
limited contribution, towards the attainment of organisational:
goals, the developed human resource i.e. knowledgeable, skilled
manpower, can contribute immensely in this direction. There is,
therefore, no doubt that "training within an industry" should
be an integral part of any concerted drive, to reorient an
industry's practices and put it on a higher working gear.

Need for Training:

The present society is characterised by high social complexity, high technology, increased dependence on it, 'skill' specialisation and a high knowledge obsolescence rate. As such, training and development, to enable people develop their potential and capabilities, is the need of the hour. Changing market needs and changing technological solutions, make market visits, attending business conferences, seminars, exhibitions and keeping abreast with professional journals, a dire necessity.

Organisations, nowadays, are increasingly aware of the importance of providing career path opportunities for their employees. Hence it is necessary that they educate them, in the desired direction, through management training facilities and maintain balanced human relations.

Not only training, but also retraining, is necessary, to counter obsolescence of knowledge and executive burn out. As we approach the 21st century, we are exposing ourselves to new technologies, from around the world. Therefore, retraining of people, to handle new machines, new technologies and new methods of production, assumes great importance. Hence, an integrated programme, for the utilisation of manpower, should include long term aims and instruments, for the development of human capacities, notably through education and training.
The best years of one's life and the best part of each day, are spent on the job. Happiness therefore, must substantially relate to one's job performance. Training helps significantly in the process, as the employee is well equipped, with information and skill, to perform the job.

Training Methods:

Training may be imparted to employees, in the company itself or they may be deputed outside.

"In plant" training programmes, are conducted by the H.R.D. department, with the help of the company managerial cadre staff. Reputed consultants, from outside, may also be invited, to deliver lectures on selected topics. In plant training methods, cover the following:

- a) Lectures
- b) Case studies, incidents and discussions
- c) Induction training for fresh employees, to familiarise them with job situations.
- d) Refresher training for employees, to educate them about new machinery and methods of production.
- e) Role playing, programmed instruction, demonstration.
- f) Brain storming sessions and simulation techniques, which are conferences or solo methods of creating new and different ideas, in numbers and dates, sorting them
out and stressing on quality, through the technique of stimulating the imagination.

g) Craft training, which demands highly complex generalised knowledge, attitudes and skills.

h) Buzz groups, where unwieldy groups, are divided into smaller "Buzz" groups, for the purpose of hearing each member of the conference. Their views, are later funnelled, to a committee, for action.

i) Managerial and supervisory development programmes.

j) Job rotation, through which, each employee gets practical working knowledge, of every type of job.

External Deputation Programmes:

Under such programmes, employees are deputed outside, either to companies engaged in the same occupation or to institutes which provide consulting services and conduct specialised training programmes. Employees may also be deputed, to participate in trade fairs, business conferences, exhibitions, seminars etc. organised by reputed institutions, with a view to encourage participation by similar trade related organisations and enhancing their technology information levels.

Participants are expected to give an account of their experience, after returning from their training programmes. Where ever possible, they are advised to put theory into
practice, in their organisations and thus take advantage of the training programmes.

Training and Productivity:

All efforts to train employees of an organisation, are aimed at increasing their ability and capacity to work and thereby, contribute towards enhancing productivity of the organisation.

However, no suitable techniques or methods have been evolved, to measure the effects of investments in education and training, on productivity. Very often, the effects are obvious or are felt but are immeasurable and incapable of quantitative appraisal. Especially, qualitative characteristics like knowledge, skill aptitudes, values, morale, motivation etc., often lack conceptual and notional clarity and precision. Hence, they do not lend themselves, easily, to statistical treatment, as the quantitative characteristics.

Further, productivity of an organisation, is determined by numerous complex, inextricably, interwoven and interdependent factors. Hence, it is very difficult to identify and isolate, the influence of a particular factor like training, on the productivity of the organisation. It is therefore desirable, to develop a proper yardstick, either in terms of cost or standard time, to measure the benefits of training, on the productivity of an organisation.
According to Yoder and Others, "Training programmes can be evaluated by discontinuing them, using check lists, employing attitude and rating scales, using cost accounting, administering test and plotting learning curves". Though these methods, definitely indicate the trends in improvement of effectiveness, due to training, it is rather difficult to talk, in precise mathematical terms, about the benefits of training.

It has been indicated that the most intelligent individual uses only 10 percent of his capacity (Mead) and that the average employees' application of his mental powers, on his job, is only 15 percent to 20 percent, of capabilities available to him (Athan). This being so, training has a strategic role to play, in enhancing productivity, as it can activate the substantial dormant capacity, lying inert, in the individual.

According to Charles Schultz, in the U.S., from 1/2 to 2/3 of the increase in productivity, per unit of labour has been due to intangible and non-material inputs. Here, training may be reasonably considered as one of the intangible and non-material inputs.

Valuable research in the past, has proved that training does have a positive role to play in improving productivity.

H. Hand and J.W. Solcum, investigated the effects of human relations training, on managerial effectiveness (Hand and Solcum 1972). Raphael suggests that training may be used effectively, to control the costly effects of employee turnover (Raphael 1975). Roslow's study proves that output of unionized workers, is greater than that of non-union groups, as workers receive more training in the unionized setting than their non-union counterparts. (Roslow 1981). In a research project conducted by Stephen Holoviak (1982), there appeared to be a relationship, between company sponsored training programmes and productivity variations. In fact, it appeared that the greater the number of management officials exposed to training programmes, the higher the company's productivity (Holoviak 1982).

Flippo discusses several advantages, stemming from training. These include increased productivity, heightened morale, reduced supervision, reduced accidents, increased organisational stability and flexibility. Improvement in these qualitative traits, play a crucial role in influencing productivity.

All these studies together, reveal that a trained person, has more to contribute towards organisational effectiveness, than an-untrained one. However, results of training, are often intangible and can take place over a long period of time. Hence, the effectiveness of training, cannot be reliably found out.

The secret of higher productivity, lies in the type of training that we give to our people. "The philosophy of training, is the philosophy of higher productivity, of greater work satisfaction and of enlightened management. One may say that if the key to productivity is managerial efficiency, then the key to management efficiency, is training."

Performance Appraisal:

"Performance appraisal (P.A.) is the process of assessing the quantitative and qualitative aspects, of an employee's job performance". It is the evaluation of an individual's performance, by commenting upon or giving an opinion about his levels of skills, capacity to do work, competence and ability. Such an evaluation, is done periodically and continuously and is aimed at, not only developing the individual, but also for organisational benefit.

It is an important tool, in the hands of superiors, to assess the subordinates.

P.A. is done at each level, by the superiors, on whom the responsibility of reporting, generally rests. The performance is assessed, on the success or failure, of tasks assigned to the individual. Reasons for failure, if any, gaps in knowledge and skills, difficulties in managing the jobs are ascertained, so that these can be filled by planned guidance and training.

Performance appraisal and management development activities, are very essential in the process of getting things done through people, who are susceptible to growth, toward more effective, behaviour. Such a task, requires new thinking, new knowledge and a new approach towards people.

P.A. helps the organisation in assessing the fulfilment of tasks, assigned to its employees. It also serves as a valuable guide, in determining the suitability or otherwise, of promotions, salary increases, transfers, lay off and termination. Manpower planning activities are made more meaningful, through systematic P.A.

Evaluation of training needs, is made easy through P.A. As regards the employee, PA results in his self improvement. He is aware of his performance, through feedback, which helps in
his development. He knows what is expected of him, where he stands and how to make up for his deficiencies.

Thus, P.A. develops harmonious employee relations and promotes human resource development. The resulting improvement, in organisational effectiveness, is beneficial, both, to the organisation and its employees.

However, despite advances in appraisal technology, effective performance appraisal in organisations, becomes a very difficult task. At times, P.A. involves comments on the abstract qualities of individuals, such as flexibility, perseverance, honesty, trustworthiness, initiative and also differentiating the degrees of each. The superior's perceptions, ideals and desires, influence his view of the employee's "strengths and weaknesses". In such case the PA may be misleading. The personal relations between the appraiser and the appraised, may also influence the P.A.

Inspite of these problems, which a management may be confronted with, a well planned and unbiased P.A., helps an organisation, in effective H.R.D. and is increasingly being used by organisations.

Career Planning and Counselling:

An organisation, which aims at developing its employees, must give prime importance to career planning and counselling. Career may be understood as to "encompass the
events, either happening to or initiated by the individual, which affect his progression or promotion, his widening and/or changing employment possibilities, and his acquiring a different and usually higher status, better conditions or increased satisfaction with his job. "Planning implies thinking ahead about employees' progression, on specific career paths". Career planning, involves planned efforts, on the part of the organisation, to chalk out and define career paths, for its employees and counselling them about reaching these paths and thus improving organisational effectiveness. This is a very crucial input, of an HRD programme. The career paths, are made known in advance, to the employees. When sufficiently motivated, to reach these paths, the employee strives to put in his best and attain high levels of achievement. Thus, both the employee and the organisation, benefit through improved productivity.

Counselling sessions, along with various career development assessment tools, ensure that each employee, is provided with a plan regarding a career path, and realistic expectation, with respect to the organisation. The organisation then outlines, a series of steps, which enables the employee, to acquire the skills, which are essential to foster that growth.

Career counselling, focuses on the analysis of the job requirements and identification of training needs, for further improvement, along these defined paths.

Counselling is a dyadic process, between the organisation on one side and the employee on the other. It differs from training, mainly in its intensity of dyadic relationship and its focus on establishing mutuality and confidentiality.

Counselling enables the employee, to acquire more insight into his future prospects in the company, and the ways and means of reaching those levels. He realises his potential, understands his strengths and weaknesses and increases his personal and interpersonal effectiveness. Goals set by the company, ensure his further improvement, and thereby, the organisational productivity is improved. Counselling helps people integrate with their organisation and have a greater sense of involvement and satisfaction.

Holoviak's study suggests that there is a link between the existence of defined career paths and the effectiveness of the organisation. Further, research done suggests that the use of career path orientation, may prove a vehicle, to tie its presence, to increased organisational effectiveness.

However, the organisation must adopt a realistic approach, while counselling, with respect to the probability of reaching higher positions in the organisation. This is essential, as there are fewer positions, available on the top and the vacancies expected in future, are also fewer. Each employee, must be entitled to accurate feedback about his performance and realistic expectations, with respect to career growth, within the organisation.

Organisation Development:

Organisational development (O.D.) is a planned and a systematic process, of ascertaining the psychological health of the organisation. Its objective is, to improve organisational health, through various means, to maintain a congenial atmosphere, conducive to productivity. It aims at changing the systems, the culture and the behaviour of an organisation, so that its effectiveness is improved. It is an integrated type of training or an educational strategy, covering the entire culture of the organisation, with a view to bringing about a planned change.

Bennis observes, "OD represents a response to change, a complex educational strategy, purporting to change the beliefs, attitudes, values and organisation structures, with a

view to effectively adapting to new technologies, markets and challenges and the unsteady rate of change itself".

According to French, "OD is a long range effort, to enhance an organisation's problem solving capability and its ability, to cope with changes in its external environment, with the aid of change agents".

These definitions, stress on a fundamental change in organisational culture, thereby leading to an improvement in productivity. Periodical employee surveys are conducted and problems such as absenteeism, inter departmental or inter personal conflicts, low productivity etc, are solved. Improvement, in the functioning of all the departments, of the organisation, is ensured.

OD is a crucial intervention of HRD, which believes that people perform better, when they feel trusted and see meaning in what they are doing.

Employing behavioural science knowledge, OD aims at increasing organisational efficiency and health. Achieving OD, requires many interventions, designed to address environmental issues or culture in the organisation. It has been experienced that the more 'excellent' organisations are those, that care for and support their employees, and treat them as assets, not things.

OD promotes the team building process, which believes that each individual differs from the other and brings a unique set of skills into a job. The team members, leave aside personality differences, focus on the task, and strive together, to reach their mutually accepted goal.

Quality Circles:

One movement that has contributed to a noticeable increase in work effectiveness and substantial improvement in the quality of work, is the phenomenon known as quality control circles (QC).

A quality circle, is a group of employees, of an organisation, normally belonging to the same department, below the rank of foreman, who meet periodically, to identify and study problems faced by them, to suggest ways and means of solving these problems, to the management or to take necessary steps to solve these problems, themselves.

The QC movement was started in Japan, in 1962. Within 5 years, 10000 circles were in operation and by 1980, more than 100,000 QCS were registered in Japan, consisting of 980000 members.

The QC concept includes "the quality of everything, that an organisation is involved with, like the quality of management and work organisation, productivity, customer"
satisfaction, reliability, value for money, after sales service and support, customer information and training, ease of maintenance, speed of service as well as organisation usage and customer confidence in it".37

Membership of the QC is voluntary and its activities are carried on, outside regular hours of the organisation. The members may or may not receive any compensation, for the time spent on QC activities.

QCs provide an orderly approach, to extract the best of human and technical resources. As a result, there is improvement in the company's productivity, harmonious relations, between the management and its employees, is ensured, quality of working life is improved and organisational efficiency reaches higher levels. Above all, QCs respect the human dimension and create an atmosphere that is rewarding to work in.

To quote J.M.Juran38 "Beyond improvement or control, a gratifying proportion of the projects are of breakthrough nature. By systematic study, they take the department, to better levels of performance, levels not previously attained".

Thus, through active involvement and participation of employees, in every area of human endeavour, QCS ensure

excellence of performance, by extracting total commitment, dedication and innovative spirit of the employees. They have better job satisfaction, higher sense of satisfaction of social needs like 'group belongingness and good work relations.

The organisation also finds easy solution of work related problems and there is better communication and better industrial relations. Improvement in cost, safety, productivity and quality, leads to strengthened relations, between the company and its employees. Quality circles also help in effective housekeeping, maintenance and value analysis.

However, to ensure success of the QCs, it is very essential that active participation of all employees, is achieved. Training, about the QC concept, must be imparted to both workers and the management. Wholehearted acceptance and participation of the management, is a must, for QCs to succeed. Above all, the management should adopt a "people building" philosophy rather than a "people using" philosophy. Only then, can QCs, achieve remarkable success, in an organisation.

Employee Relations and Grievance Management:

The HRD philosophy, is that, an organisation is as successful, as the people that go to make it. Managing hard variables like strategies, structures and systems is comparatively easier than the handling of "Soft" variables like the skill and style of employees, shared values and ideals etc.
As such, effective and cordial employee relations and satisfactory/convincing grievance management, is a must for an organisation, to have a highly dedicated, committed and motivated work force.

An organisation, which lays greater stress on improving the relations between it and its employees and their quality, through an upgradation of the conceptual, managerial, behavioural and technical skills, which take precedence over systems, procedures and technology and thereby, has a contented labour force, can undoubtedly, reap the gains of such an approach, through increased productivity.

Providing welfare benefits such as medical insurance, disability insurance, holidays and vacation, providing healthy food and beverages in the company's canteen, good heating, airconditioning and lighting arrangements, providing recreation facilities like gymnasium, sports clubs, aerobics, Yoga club, go a long way, in maintaining cordial and healthy relations, between the company and its employees.

Making work challenging, appreciation of valuable suggestions or improvements in the company's functioning, giving the workers, some degree of autonomy in their work, flexible work hours, safety and rest pauses etc, generate a sense of belonging among the employees and provide harmonious relations, between them and the organisation.
Rewarding employee performance, is an effective step, to motivate employees, to strive hard for excellence. Man craves for recognition, and if his abilities are appreciated, there is nothing more, which will extract the 'best' out of him. Rewards lubricate the relations, between the company and the employees. Employees are encouraged, to acquire and apply, positive attitudes and skills. They also get an idea, of the organisation's value and their expectations.

Rewards may be in the form of public appreciation, either in the company's magazine or newsletter, announcing achievement awards, award of special incentives or increments or selection for a valuable training programme etc.

Grievances, among the workers, are bound to arise, whenever the human factor is involved. However, prompt and satisfactory handling of grievances, instills a sense of confidence and justice in them. Formation of grievance committees, in big organisations or fixing up a certain time/day, for attending to grievances in medium/small organisations and effective handling of worker grievances, play a positive role, in maintaining cordial management/worker relationships.

Normally, the areas of grievances, may relate to promotion, wages, additional increments/bonus, allotment of residential accommodation etc. There may also be grievances, relating to discipline and interpretation of rules may come up.
Shop level grievances, may be settled, at that level itself, if the persons, at helm of shop affairs, adopt a patient and reasonable/practical approach. Prompt redressal of grievances, certainly contributes to the improvement of employee relations.

An effective employee relation programme, also requires that there should be good organisation communication, which provides information to all workers. When information is clear, rumors are eliminated. This is a great advantage as rumors result in office gossip, downtime and a loss of productivity. Open and effective office communication, fosters sound management and a culture, supportive of its workers.

Thus, all employee relations activities, in an organisation, those oriented toward assuring better communication with employees and those aimed at developing and implementing corporate policies, are designed to develop a congenial atmosphere in the work place, of which, everyone feels, he is a part.

H.R.D. - Views of Economists:

Material resources, are of no value, in the satisfaction of human wants, until they are transformed by human action. A critical element, in the development of the forces and materials of nature, is human effort. Since man is directly connected with the development of material resources, he should
also be concerned with the characteristics and economical use of human input, as it is related to this development process.

As with material resources, human resources can be wasted, through misuse, or they can be used with economy. The key, to the success of many of our activities, is the economic and efficient utilisation of human effort.

A unique feature of investment in human resources, is that unlike other investments, investment in human resources, does not depreciate or lose its value, during the period of its utilisation. On the contrary, the more the use that is made of investments in the knowledge, skill, and experience of a country's population, the more is the capital value and the higher the income yielding capacity, of the investment made on them. If human capital remains idle or unutilised, it tends to deteriorate and become obsolete, at a faster rate, than other types of physical capital.

All history, as well as current experience, points to the fact that it is man, not nature, who provides the primary resource, that the key factor of all economic development, comes out of the mind of man.

Human effort, is the largest economic resource of a country. It is the most abundant resource, available in an economy. Therefore, its sustained and stable growth, depends in a very large measure, upon the proper utilisation of this resource.
The importance of human beings, as a valuable factor of production and the need to develop them, has been recognised by economists, right from the times of classical economists like Adam Smith. He includes all of the acquired and useful abilities, of all inhabitants of society, in his concept of fixed capital. He included "Useful machines, profitable buildings, improvements of land and the acquired and useful abilities of all inhabitants or members of the society" in his analysis of fixed capital.

The neo-classical theory, while trying to counter the Marxian view that labour is the ultimate source of value, gradually neglected the view that human beings are not only the means but also the end of production. The recent emphasis, in the study of H.R.D., is in retaliation to this neglect of the human factor in economic development, by the mainstream of economic thought.

According to the micro approach, for the purposes of discussion and research on H.R.D., the firm would try to attain an optimum position, in respect of human resource use, which corresponds to the maximum profit level, at present or at some future point of time. But Lord J.M. Keynes pointed out in his

General Theory of Employment", that considerable unemployment may exist, even if all the firms in the economy, attain their respective maximum profit positions. In such a case, "individual firms would not simply bother, about what happens to this "people power". Firms may also not bother, about H.R.D. on 'Human betterment', outside their premises. 41

The theme of "Development of Human Resources" has been dealt with, by Adam Smith, Karl Marx and many other classical and modern economists. They have focussed their attention, on labour, dexterity and skill development, on the basis of labour output of an individual. They view quality of human growth, as the harmonious development of the individual, in consonance with the physical, biological, psychological, political and economic environment. The psycho social influences, together with the phenomenon of individual differences, affect the quality of growth, of human resources, at a given time.

Writings of Gunnar Myrdal 42 and others, recognise that provision of health care, education, nutrition, shelter, drinking water and employment are crucial, for optimal utilisation of human resources. Thus it was generally, indirectly accepted, that H.R.D. was essential, to realise growth with quality and to bring out modernisation with self-reliance.

Theodore Schultz, one of the pioneers of the 'Human Capital' approach school, says "the most important economic resource, in the world, consists of the acquired abilities of people, their education, experience, skills and health. This human capital and not space, energy, crop land or other physical properties of the earth, is decisive, in improving the welfare of the poor people, throughout the world".

Paul J. Meyer asserts "The greatest natural resource, of a nation, is its people. It follows that the primary goal, to be pursued at all levels, state, local and private, should be the development of each individual, to his fullest potential". The need for H.R.D., is built into this view of Meyer, who felt that unless the abilities of our people are fully exploited, development of the nation will not reach the maximum level.

The noted economist, Alfred Marshall wrote, "the most valuable, of all capital, is that invested in human beings."

Prof. H. Von Thunen, Prof. Irvin Fisher, Prof. Pigou, all considered that "to the economist, the most important

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investment of all, is the investment in health, intelligence and character of people".

In recent years, eminent economists like Simon Kuznets, Edward P. Dennison, Gary S. Becker, Jacob Mincer and B.A. Weisbrod, have strongly advocated the importance of investment in human resources, for accelerated economic growth. They have emphasised the usefulness of human capital estimates, for the determination of optimal levels of investment, in education, wealth, training and other H.R.D. programmes.

Ragnar Nurske had hinted at the importance of the human factor when he said "Capital is a necessary, but not a sufficient condition of progress."

H.R.D. makes a direct attack on poverty. In no other economic model, removal of poverty is a by product or a trickle down, be it neo-classical and Keynesian or of mixed economy planning variety.

H.R.D. may be considered, both as an investment and consumption. Many studies, have brought to light, the

investment character of H.R.D. For example, Senator Paul H. Douglas and M.I.T.'s Robert Solow's statistics, suggest that labour, is the single most important factor of production. A 1 percent increase in labour, seems to increase output, about 3 times, as much as would, a 1 percent increase in capital. Hence it is worth investing more in labour, than in capital.

"According to Charles Schultz, in the U.S., from 1/2 to 2/3 of increase in productivity per unit of labour, has been due to intangible or non-material inputs. Much of what we spend for human resources and what we call "consumption", constitutes investment in human capital. Hence H.R.D. can be thought of both, as investment and consumption.

Of late, economists have started laying more emphasis, on making an optimum use, of the available potential of human resources, to speed up a successful development strategy.

An underdeveloped country like India, can accelerate the rate of her development, by stepping up the rate of investment in physical capital and human capital. Expenditure on H.R.D., creates external economics, the specific returns of which, are not ascertainable. Investment in developing people, is not likely to give short term and visible results. However, the effects of human capital, are easily perceptible. High level

manpower, is a resource, whose supply can be increased, only by investment in H.R.D., Thus, H.R.D. becomes competitive to physical resource development, as it imposes a demand, on the scarce resources, available for growth.

H.R.D. and Education:

"Knowledge is the only instrument of production that is not subject to diminishing returns"—J.M. Clerk. 52

The real strength of a nation, is a function, of the power and the skills, of the citizens, inhabiting it. In the empowerment of Indian masses, therefore, lies India's strength and the role of the institutions of higher education, which are the reservoirs of knowledge and centres of human resource development, in this regard, is obvious. It produces capital, by transforming unskilled labour into human capital.

History has established, beyond doubt, the crucial role played by human resources, in the development of nations. "And the development of human resources, is the main function of education". 53 Given a high degree of motivation, notable success may be achieved, even though sophisticated physical facilities may be lacking. The achievement of C.V. Raman, Dr Zakir Hussain etc. in the field of education, are good

examples. Hence, the managers of higher education, should inculcate among the educated, a high degree of motivation and dedication, as a basic prerequisite. They should ensure that the knowledge and information generated by them, is disseminated across the country, for due absorption and assimilation, by the people, so that the common man, develops a scientific and rational approach, to the problems facing him.

Education and H.R.D. have one goal in common i.e. development of the individual, according to his potential. H.R.D. has a multiplier effect, on the utilisation of all other resources. That is why, the concept of education, as an investment, has been increasingly accepted.

A nation's wealth is determined, by the superior men it harbours and schools are the nurseries, where the seeds of such fine quality are sown. Education is a dynamic force, in the development of individual personality, in the promotion of new attitudes and values, in the enhancement of knowledge and culture and the quest for a new humanism and peace. It is, merely, removing the darkness, of mind and soul.

Education gives people, the capacity, with which, they can work and manage their affairs, in a better way. Such an improvement, leads to an increase, in the National Income. A great barrier, for rapid advancement, in underdeveloped
countries, is the widespread existence of ignorance, illiteracy and lack of training, on the part of their work force. A poor, ignorant, illiterate and less healthy population, can hardly possess adequate motivation— a most potent factor in economic development. In the words of Prof. Myers and Prof. Harbison "The broadening of the capacities of man, the extension of his knowledge and upgrading of his skills, may lead to the best available road to "Economic Development" which results only from action". Hence, improvement of education level and betterment of the health of the population, play a crucial role, in the development of underdeveloped countries.

Theodore W. Schultz, an ardent advocate of investment in education, maintains that in the U.S. "some important increases in National Income, are a consequence of additions to the stock of this form of capital".

The National Productivity Council, in one of its productivity surveys, found that a very large enterprise, was utilising, its manpower, only to the extent of 20 percent of the utilisable optimum. The underutilisation was traced, to the absence of skilled and efficient supervision. The supervisors did not have the requisite qualifications and experience, of

supervisory skills. "The enterprise had enough labour but not human capital".  

Education, Economic Growth and H.R.D. :

The economic growth of a nation, depends upon the increase in the inputs. Kendrick (1961) noted that the rate of growth of the output, has been faster than that of inputs, consisting of labour force and physical output. Later research proved that a major portion of the unexplained residue, in the growth, in output, could be due to growth in labour quality, through education.

The pioneering works of Schultz, Becker, Denison, etc, have firmly asserted education, as a crucial factor, in economic development. According to Denison (1962), education contributes to economic growth, by raising the quality and thereby, the productivity of the labour force and by accelerating the rate, at which, society's stock of knowledge itself advances.

Education raises the general standard of information, reduces the time lag between creation and innovation and makes the people more receptive to change.

The more the education, the more the number of years in school and thus, the higher the age of entering employment. Hence, the larger the education system, the smaller the size of the labour force. Education therefore influences the quality, quantity and corresponding economic growth and productivity.

E.F. Denison concluded in his study that "education alone was responsible, for 23 percent of the growth of the total real income and 42 percent of the growth of real national-income, per person employed".

Prof. T.W. Schultz's study, for the period 1900-1956, reveals that the "income elasticity", of the demand for education, was about 3.5 over the period and alternatively, education considered as "investment" might be considered, as 3.5 times more attractive, as "investment" in physical capital.

Norman Hicks has found out that in the fast growing middle income group nations, an increase in literacy of 20 percent, pushed up growth by 0.5 points.

The aforementioned studies, emphasise that qualitative improvement in education, is the backbone, of any strategy of

H.R.D. and economic growth and thus qualitative improvement, can be achieved, through increased facilities of teaching aids, libraries, laboratories, buildings and equipment and selective admission to higher courses of learning. Importance should be given, to excellence in academic standards.

Another noteworthy aspect, of the role of education, in H.R.D., is its contribution towards effective improvement, in productive life. Education should be such, as will bring about an attitudinal and behavioural change in manpower, creating a conviction to fight, against poverty and other social evils. "Education of the poverty group, is itself, an instrument of H.R.D." Thus, the direct relationship between investment on education and productivity of the economic system, can be clearly perceived.

Knowledge, is the most powerful engine of production. Man must add to his stock of knowledge, all the time, to have a continuous process of economic progress, through enhanced productivity.

Education Suitable for H.R.D.:

Today's business environment, is characterised, by a mixture of globalisation, increasing scientific discoveries, enormous developmental effort in public and private sectors, rapid technological advances, cutthroat competition and

survival of the fittest. With this scenario, our human resources, must be outward looking, customer oriented, quality conscious, alert, positive and innovative. They have to do things innovatively, in a totally different way. And this is the most crucial ingredient, of an H.R.D. oriented educational programme.

Education of individuals, may broadly consist of the following.

a) General Education:

This provides basic and fundamental knowledge, on important issues, highlighting methodological issues. It equips the individual, with learning skills and provides a basis for specialisation and competency development.

b) Specialised Education:

This education provides a deep insight, into the chosen field of education, as a result of wide base of practical work, project studies and reports. As a result of specialised education, individuals are motivated to investigate into problems, to provide speciality via independent research. Though each one may not be equally motivated, at least those at the helm of affairs, will be encouraged to develop an investigative tendency.
c) Practical Orientation through education:

Our education system is such that though college and University degrees are obtained by individuals, they lack the practical knowledge and skills, which are indispensable to face the competitive world. Good managers are not born, they are made. Experience of situations and challenges, in the workplace, play a pivotal role in moulding the manager. Through encounters with problems and interaction with people, managerial skills are developed. Studying theories and principles from textbooks, is not going to assist in this process. A practical determination of the skill requirement and formulating a hierarchy of policy responses, is the need of the hour.

d) Information intensive education:

The new technologies entail, in terms of human capital requirements, increased demand for new, complicated and higher skills. Skills required today, may be obsolete tomorrow. Further, skills required for each individual situation, may vary according to the technology involved. Hence, for all round H.R.D., education should be such, as will prepare our human resource to handle varied situations, with efficiency. This necessitates, imparting of more information intensive education rather than fundamental intensive education. Further, the education system, should also encourage narrow specialisation,
lenghten the foundation period, highlight the importance of co-operation between education research, extension and production, so that, the quality of training and education itself, is enhanced, and increased productivity is aimed at.

e) Vocationalisation of education

Considering the high levels of unemployment in our country, vocationalisation of education and training, in colleges, is a dire necessity and our government has been rightly taking steps in this direction, under its five year plans. This is one step, which recognises the importance of practical education, in comparison to just obtaining degrees. Vocational education schools, I.T.Is, polytechnics, especially in fields of mathematics, biology, chemistry and electronics, are very essential. To promote this, public awareness and confidence, in vocational education, must be first increased. Together with adult education systems, a judicious use of mass media, must be exploited. Only then can adult education and distance education via T.V. programmes and audio visual aids, exert the required influence.

f) Education and effective stress management

New technologies, bring the managerial skills of decision makers, under severe stress. It is, therefore, imperative that the human resources should be thoroughly
prepared and well equipped, to overcome stress, through appropriate training and consultation. Organisational excellence and individual success, are achieved, through well managed stress.

Requirement of vision, far sightedness and a sense of mission, are a must, in today's competitive world, to successfully overcome stress.

g) Education, creativity and innovative skills:

It is the human factor, which, through its capacity, of deciding the use of other productive factors, determines the quality of the desired results. Hence, expansion of skills, along with the technologies, must be the central theme of education meant for promoting H.R.D. Basic scientific and technical qualifications, are indispensable. Together with these qualifications, it is necessary that his creativity and innovative ideas, are given a chance of exposure. An individual's ability to integrate his activities vis-a-vis the production process, to imagine beyond the frontiers of his bookish knowledge, assume great importance in the present context. The highly interactive nature of the emerging technologies and their information intensity, necessitate that human resources, are well trained, in effective self management and capable of converting their innovative ideas, into reality. Such an ability, ensures a supportive relationship at work, in
such a way that we can test reality, share our successes and failures, learn from each other, gain respect and be successful, in any field, whatsoever.

Psychological and Sociological Aspects of H.R.D.:

Underlying every industrial process, is human behaviour and all behaviour, expresses underlying psychological needs. Every industrial problem, has psychological elements, insofar as it involves the behaviour of people. The forces, within all of us, our psychological needs, determine our action, our purpose, our words, our view of the world and our responses to it. As man's behaviour, is caused by a variety of stimulating circumstances, both external and internal, psychology concludes that all behaviour is caused. There is a reason for everything a man does. As such, if a change in behaviour is desired, it is absolutely necessary, to change the reasons for or cause of his behaviour. H.R.D. is directly related, to this change in man's productive behaviour. The basic ingredient, for an effective H.R.D. programme, in an organisation, is a proper understanding of the needs and behaviour of the employees and timely and appropriate motivation, desired to achieve an increase in the company's productivity. If a psychological attitude is developed by an organisation, towards its day to day problems of human relations, it will surely be successful in achieving the goals of its H.R.D. programmes.
Psychologists are of the view, that there is an optimum environment, in which people work, most efficiently. There is a theoretical relationship between a man's efficiency and the size of the change in the environment, away from the optimum. A fall in a persons' efficiency, may be reflected in his work, in a number of ways. He may either make errors, or work slowly and carelessly or may absent himself from work, to put off having to return to the stressful or may absent himself from work, to put off having to return to the stressful working environment. The need of effective counselling, by the H.R.D. department, to make the worker feel that the workplace is safe and atmosphere is congenial, is highlighted here. The main aim of the H.R.D. department, in this reference, is to make the worker industrially active and not industrially reactive. Here, wage incentive systems alone, do not succeed. Opportunities for consultations, on personal problems, are found to be important. Group discussions, open discussions, retraining of leaders, in accordance with democratic standards, yield remarkable results.

"Such findings add up to the simple proposition that people must have a hand in saving themselves. They cannot and will not be saved from outside". 62

Valuable psychological studies, have concluded that human relations oriented supervisory styles, affect

productivity. A human relations oriented supervisor, takes personal interest in the work of his subordinates, establishes a supportive relation with them and tries to ensure that not only organisational goals but also their personal goals, are achieved. On the other hand, the task oriented supervisor, sees his main function, as initiating and organising group work. "The relation between leadership styles and satisfaction indicates that person oriented patterns of leadership, tend to enhance employee satisfaction".  

Sociologists see in H.R.D., a mixture of social conflicts. By guaranteeing minimum entitlements and ensuring some equalisation of services, a lot of the frustration of the old and the new poor, can be removed.

Much of the literature of resources, is simply industrial sociology or social psychology, under a different name. As such, "human resources" is concerned with the human side of the business organisation, with groups of people, with friends and enemies with varying needs and interests, with emotions, rumors, attitudes, cliques.  

Human resources sociology, is a service of classifying, predicting and understanding human behaviour, in business and

industry. "It is a study of social systems in industry and
studies systems of authority, relationship between line and
staff authority, the flow of work, in relation to the social
group, the sentiments, attitudes and feelings of people, the
actions of people participating in a social situation, the
interaction of sentiments and action within social systems". 65

The sociological approach, has the advantage of bringing
out the human aspects of the employee employer relationship. It
has developed useful techniques of measurement of social
organisation, attitudes and sentiments.

The Hawthorne studies 66 have proved that sociological
factors such as attitude, play a crucial role, in the
productivity position of an organisation. The researchers of
this study, were interested in certain types of responses,
which showed that a frequent cause of failure to produce, was
the obsessive thinking, resulting from some disturbance in the
social relations of the employee.

Elton Mayo in his book 67 "The human problems of an
industrial civilisation" found that absenteeism and labour
turnover resulted, from a feeling of being lost in the
industrial technology. Hence, intelligent leadership was

65. Gardner Burleigh and Moore David, "Human Relations in
66. Roethlisberger Fritz J & Others "Management & the worker",
necessary, to weld workers into motivated working groups and the result would be higher production, better attendance and less labour turnover.

Sociologists have talked for years, about the role of conflicts, and this aspect is very crucial and relevant, in industry. A worker, who does not know what is expected of him, and what he may properly do in accomplishing his obligations, is uncertain and unhappy. Hence, it is absolutely essential, to ensure that the worker has a clear idea, about the assignment, and clarity can be effected, through proper training- an H.R.D. input. Without appropriate training, a person does not have the capacity to fulfil this assignment, in a competent manner. As such, he may rebel against the job and may not enjoy work. His lack of ability, to perform the job properly, may be the evidence of poor selection and placement or may be the result of inadequate training and skill development.

An individual is constantly interacting with his environment, both physical and human. Such interaction, triggers off certain thought processes, which crystallise into ideas and concepts. He is particularly influenced by certain ideas and develops an emotional attachment to them. He starts feeling the urge to put them into practice and starts looking at the fulfilment of his ideas, as his main aim and goal. It is at this point that H.R.D. plays a pivotal role, in motivating
him, to unify his individual goals and company goals and work towards attainment of the same.

The role played by H.R.D., in this context, is meaningfully clarified by Freud, who wrote many years ago "Zu arbeiten and Zu Lieben" (to work and to love) are essential human needs. An organisation gets better performance from people, when it operates on the expectation that people want meaningful involvement in work and want to contribute to the achievement of organisational goals.

**H.R.D. and Management:**

"Management is, in the end, the most creative of all the arts - for its medium is human talent itself".  

Robert Mc Namara, has rightly referred to management, as an art, in the above statement. If we consider science as a systematised knowledge, then we must recognise the process of managing, as an art i.e. as the expression of inborn and inherent, individual talent. The quest for knowledge and the challenge of perfection, even to the most gifted and creative persons, is never diminished. The aforesaid statement, reflects the crux of management and pinpoints the significance of the human factor, in the sphere of managing.

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69. Robert Mc Namara, President, World Bank, Speech at Millsaps College, Jackson, Mississippi, on Feb.24, 1967.
Of all the M's in Management i.e. the management of material, machines, methods, money and motive, the most important is 'M' for Man or Human resources.  

Managing means making the strengths of people effective. People are weak, cause problems, require procedures and create chores. In spite of this fact, they are employed for their strength and capacity to perform. And the purpose of an organisation, is to make the strengths of people, productive and their weaknesses, irrelevant. This crucial process, is facilitated through well planned H.R.D. programmes.

Effective management, is concerned with exposing and exploiting, the creative ability of the individual. Everyone of us, desires to 'motivate' people. But motivation is a deep rooted inner quality. The effective manager, can kindle desire and can harness it, in the service of goal management, through timely and informative H.R.D. programmes.

Management deals with varied managerial procedures of planning, implementing, monitoring and evaluation, so that work can be extracted from an individual, in the organisation. H.R.D. assists the management, in reaching this goal.

Various authors of management, have stressed on the need of managing people effectively. Peter F. Drucker, an

70. Mathur B.L., op. cit. pg.88.
authority on Management, quotes "It is no accident that there is so much talk about human relations, about giving the workers a sense of responsibility, and so much emphasis on their "feeling of importance" and so little on making them and their work, important".

In another book "Management" Drucker says that "people are our greatest asset. The only real difference between one organisation and another, is the performance of people. However, the accounting treatment of people, shows them as "costs" Human beings are always directed, by the information and measurements they receive. Hence, it is necessary to show people as "capital investment" on the asset side of the balance sheet. The "information" referred to by Drucker, is made available through systematic training. He says that to enable people, to be led by their own measurements and their own controls, we need something more powerful than meetings, seminars, sermons or proclamations.

The importance of the human factor, is also pointed out by Terry and Franklin, who write "An enterprise is made up of humans, banding together for mutual benefits and the enterprise is made or destroyed, by the quality and behaviour of its people. What distinguishes an enterprise, is

its human resource, having the ability to use knowledge of all kinds". 73

The close interrelation, between H.R.D. and management, arises from the fact that men who manage other men, must remember that the managed, are men, and that they will judge the nature of the approach, which is made to them. Attractive incentive systems and a congenial atmosphere, in the organisation, are of importance, but finally, the employees will judge the quality of the means used, to induce them to labour. This judgement will affect the effectiveness of the means. When a sense of belonging is felt by the employees, their contribution towards productivity, will certainly be the most.

Pioneering work, in the field of Management Development and Training, was initiated, by farsighted and imaginative persons like F.W. Taylor 74 and Frank & William Gilbreth, who attempted to develop new ideas of Scientific Management. Their initial efforts, were confined to the installation of new incentive schemes, broadly designed to improve workers' productive efficiency.

The philosophy of the management, should be such, that views the individual and the organisation, not only as inter

related, but interpenetrating one another. Sometimes, the management may have conflicts with labour or capital. If it considers man as a capital asset, it should pay greater attention, to the sources of potential conflicts with the company. It is very essential, on the part of the management, to think of its labour force, as a resource which is related to the future. Only then, will an H.R.D. programme, be meaningful and effective.

It is the management, which plans, co-ordinates, supervises and controls all activities, not only at the level of an enterprise, but also at the sectoral and aggregate levels. It has therefore, to accord a high priority, to the development and training of management personnel, who play a strategic role in policy decisions.

"Each individual is like all other human beings in some respects, like few others in some respect and like none else in yet other respects, which make him a unique person. It is therefore, the management's responsibility to make this uniqueness, a reality and productive, through H.R.D.

Effective performance, is the aim of all good management, which is a body of managers, through which it operates. Managers have to obtain the results, through the Work

of the people, whom it controls. The effectiveness of control, is influenced by many factors, and mainly depends on the ethos, a culture to do work and obtain results from the people. If work ethos and work ethics are inculcated in the people, a leap forward to management effectiveness, will be the result. Here, the close relationship between H.R.D., which is concerned with building a good work ethos, and management - which is concerned with obtaining results, through conducive work ethos, is very obvious.

"The essence of H.R.D. and management, lies in making the capabilities and performance of yesterday, the minimum of today and in turn, making those of today, the minimum of tomorrow. It is in this sense that H.R.D. and management are a continuous journey and never reach a final destination, through sustained managerial excellence and timely managerial interventions."76

Human Resource Development, in India:

Constitutional Approach:

On 26th January, 1950, India adopted her constitution, which was framed in such a manner, that all the rights and privileges of Indian citizens, were protected.

The Government's concern, for allround human resource development, is evident from the constitution itself, which

76. Nanjundiah H.N., Ibid pg.3.
ensures unrestricted H.R.D., by conferring such fundamental rights on the citizens, as would be essential for the purpose.

Article 14 of the Indian Constitution, confers a very crucial right to its citizens— the right to equality, through which the Government has secured, to all persons, the equality of statute and of opportunity, referred to, in the preamble of the constitution. Equality before law means that among equals, the law should be equal and should be equally administered and that like should be treated alike. This feeling of security, of being treated impartially and justly, is absolutely necessary, for an individual's development. Development should be from within and unless and until, the individual feels secure from injustice, his development cannot be possible. This has been guaranteed by our constitution.

Discrimination on grounds of religion, race, caste, sex, place of birth etc. is prohibited by Article 15 of the constitution.

Education and employment, being essential ingredients for growth, our Government has provided, in the constitution, that those who are educationally backward and also those who are socially down trodden like SC/ST, exceptions to article 15 will be provided. Article 24 prohibits employment of children in factories, or in mines or hazardous employment. Thus, through suitable provisions, our Government has ensured that
women, children, educationally and socially backward people, are encouraged, in fields of education and employment.

Right to freedom of speech and expression, guaranteed by our constitution, through article 19, is also an important ingredient, for unrestricted all round development.

Culture and education, form the very foundation for all round development. Hence, the rights conferred by articles 29 and 30, are indispensable and valuable for effective H.R.D.

Directive Principles of State Policy:

Together with justiciable fundamental rights, the government also provides non justiciable Directive Principles of State Policy. Though they are non-justiciable i.e. cannot be enforced in the court of law in case of breach, they are certainly fundamental, in the governance of the country. The Directive principles of state policy, pertain to those rights, which are the very basis of further development, of the individual. Unless they are assured, development from within, cannot be ensured. They are:

a) Right to adequate means of livelihood.
b) Right against economic exploitation.
c) Right of both sexes, to equal pay for equal work.
d) Right to work and leisure.
e) Right to public assistance in case of unemployment, old age, sickness etc.
Alongwith these, part-IV also speaks of the state obligation to provide just, humane conditions of work and maternity benefit, living wage etc. for workers, uniform civil code to all citizens, compulsory free education for all children, protection to education and economic interests of SC & ST and other backward classes, participation of workers, in management of industries, equitable justice and free legal aid to all. These are nothing but the fundamentals, of an effective and successful H.R.D. programme.

The state, (vide articles 38 and 39), is also directed, to bring about a social order, where justice-social, political and economic, shall inform all the institutions of national life, to create conditions, where there will be no concentration of wealth and means of production, to the common detriment. These articles, read with the Preamble, indicate in most unequivocal terms, our socio-economic goals; the national ideal, which the state and its people, are enjoined, to strive to attain. Effective H.R.D. can only take place when all these conditions exist and the Government has taken all steps, to ensure that the above conditions do exist in actual practice.

Just as the Government has given its citizens, certain fundamental rights, it has also imposed certain fundamental duties, which must be abided with. These fundamental duties, have been incorporated in the constitution, to create
psychological consciousness, among the citizens and are of educative value, to strive towards excellence, in all spheres of individual and collective activity, so that, the nation constantly rises, to higher levels of endeavour and achievement.

It is only through excellence, in all spheres of individual activity, that excellence of the nation, as a whole, can be achieved. Hence, all the efforts of the Government, are directed towards human excellence i.e. H.R.D.

Human Rights Commission:

An ordinance, to provide for the constitution of a National Human Rights Commission, State Human Commission and Courts, for better protection of human rights and for matters connected therewith or incidental thereto, has been passed on 28-9-1993, known as the Protection of Human Rights Ordinance 1993. It extends to the entire country and aims at protecting human rights i.e. rights relating to life, liberty, equality and dignity of the individual, guaranteed by the Constitution or embodied in the International Covenants and enforceable by courts in India.

The Commission enquires into violation of human rights and negligence in the prevention of such violation, by a public servant. It undertakes and promotes research, in the field of
human rights, spreads human rights literacy among various sections of society, and promotes awareness of the safeguards available, for the protection of these rights, through publications, media, seminars etc. It also encourages efforts of non-governmental organizations and institutions, working in the field of human rights and such other functions, as it may consider necessary, for the promotion of human rights.

Formation of "National Commission for Minorities" under Sec. 3 of the National Commission for Minorities Act, 1992 and "National Commission for SC & ST" (section 338 of the Constitution) and "National Commission for Women" constituted under Section 3 of the National Commission for Women Act, 1990, are constructive steps taken by the Government, to promote H.R.D. among the weak, backward and down trodden.

The foregoing discussion, is an exclusive evidence, of the concerted efforts put in by our Government, right from the time our Constitution was framed, as all the factors, leading to development of the human resource, have been considered, while framing the Constitution itself.

The Human Resource Development Ministry:

Recognising the paramount importance of H.R.D., in the economic growth of the nation, a cabinet ministry for H.R.D., was instituted in 1985, under the leadership of our late Prime
Minister, Sri Rajiv Gandhi. The then Education Ministry, was restructured and subsequently named "Ministry for Human Resource Development" with the following sub-divisions.

1) Department of Education
2) Department of Youth Affairs and Sports
3) Department of Arts
4) Department of Culture
5) Department of Women's Welfare.

Whereas departments No. 2, 3 & 4 have been clubbed under department of education, a department for women, has been functioning as a part of the Social Welfare/Social Security and even home affairs. The creation of this new ministry, has added a new dimension, to our efforts in H.R.D.

Functions of the Departments of the H.R.D. Ministry:

1) Education:

   Education being a very crucial input, for H.R.D., target groups have been formed and they are given foremost attention, especially those pertaining to SC/ST, women, backward area dwellers, educationally backward minorities and the handicapped. To facilitate easy access to education, from primary to higher education levels, education technology in terms of the mass media, is increasingly pressed into service. Studies reveal that opportunities in the educational sector,
are expanding at 15 percent p.a. while the industrial sector growth, is only 5 percent. This difference creates unemployment. Our Government has been trying to uproot the social evils of unemployment and poverty, through systematised H.R.D. efforts.

Elementary Education:

Universalisation of Elementary Education (U.E.E.) is a constitutional mandate. Article 45 of the Constitution stipulates, as a Directive Principle of State Policy, that the state shall endeavour to provide, within a period of 10 years from the commencement of the Constitution, for free and compulsory education, for all children, until they complete the age of 14 years. Accordingly, increasing emphasis has been given by our Government, to promote elementary education. From 85 crores spent on elementary education, during the I plan (1951-56), this amount has increased to 20570 Crores during the VIII Plan (92-97) (allocated amount). The New Education Policy (N.E.P.) 1986, gives highest priority, to prevent children dropping out of school and ensures that necessary steps are taken, at the grass root level itself. The scheme of Operation Blackboard, aims at bringing about a substantial improvement in facilities, in primary schools, for which 383.09 crores were spent during the VII plan. The National Education

Evaluation Organisation (NEO), District Institutes of Education and Training (D.I.E.T.), Shiksha Karmi Project etc. are other efforts of the Government, to promote elementary education.

Secondary Education:

Our Government has been considering the need for diversifying Secondary Education, by introducing knowledge and skills, that may prepare students for remunerative work, without necessarily having to go for higher education. The VIII Plan document, has also identified vocational and skill training programmes, at different levels of education, as one of the major thrust areas. The N.E.P. has laid down the target of 25 percent diversion to the vocational stream, by 1995.

Special efforts made by our Government, to promote and improve Secondary Education include the following.

Table 2.1
Amount spent by our Government, to improve secondary education

| 1) Improvement of Science Education | 78.64 Crores |
| 2) Environmental Orientation to School Education | 3.50 " |
| 3) Educational Technology Programme | 46.84 " |
| 4) Computer Education in Schools | 17.34 " |
| 5) Navodaya Vidyalayas | 232.82 " |
The National Foundation for Teachers Welfare, Kendriya Vidyalaya Sanghatan, Central Board for Secondary Education (C.B.S.E.), National Council for Education Research and Training (N.C.E.R.T.) have been constituted, to assist in the process of imparting quality secondary education.

Higher Education and Research:- General Education:

Setting up the U.G.C., in 1953, was a crucial step taken by the Government, to promote higher education. The University Grants Commission (U.G.C.) promotes and co-ordinates University Education and determines and maintains standards of teaching, examination and research, in the universities. It is authorised to enquire into the financial needs of the universities and to make appropriate grants, to different universities, and implement development schemes.

Facilities for SC/ST teachers, women's studies, projects on information and library network, bilateral exchange programmes, media and education technology through "country wide classroom" programme on T.V., education through distance learning, are some of the other facilities offered by the U.G.C.

Our Government has promoted general education through 170 independent universities, 10 Central Universities and 31 Deemed Universities, upto 92-93".78 The Indian Council for

### Table 2.2

**Amount spent by our Government on higher education during the VII Plan**

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<tbody>
<tr>
<td>Amounts spent for UGC</td>
<td>74.88</td>
<td>98.76</td>
<td>129.77</td>
<td>121.10</td>
<td>120.00</td>
<td>210.74</td>
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<td></td>
<td>120.92</td>
<td>142.02</td>
<td>180.00</td>
<td>191.87</td>
<td>210.74</td>
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<td></td>
<td>195.80</td>
<td>240.78</td>
<td>309.77</td>
<td>312.97</td>
<td>330.74</td>
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<tr>
<td>Amounts spent for IGNOU</td>
<td>3.00</td>
<td>7.5</td>
<td>4.2</td>
<td>11.00</td>
<td>18.41</td>
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<tr>
<td>Amounts spent for IITs</td>
<td>8.65</td>
<td>8.00</td>
<td>24.48</td>
<td>22.75</td>
<td>25.14</td>
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<td></td>
<td>45.90</td>
<td>53.21</td>
<td>62.55</td>
<td>75.54</td>
<td>78.80</td>
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<td></td>
<td>54.55</td>
<td>61.21</td>
<td>87.03</td>
<td>98.29</td>
<td>103.94</td>
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<tr>
<td>Amounts spent for RECs</td>
<td>6.34</td>
<td>6.60</td>
<td>14.10</td>
<td>11.29</td>
<td>12.40</td>
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<tr>
<td>(Regional Engg. Colleges)</td>
<td>9.31</td>
<td>11.19</td>
<td>14.10</td>
<td>15.79</td>
<td>18.80</td>
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<td></td>
<td>15.65</td>
<td>17.79</td>
<td>28.20</td>
<td>27.08</td>
<td>31.20</td>
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<tr>
<td>Amounts spent for IIMs</td>
<td>5.64</td>
<td>4.51</td>
<td>4.71</td>
<td>5.62</td>
<td>8.70</td>
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<td></td>
<td>4.44</td>
<td>5.05</td>
<td>5.89</td>
<td>5.79</td>
<td>6.52</td>
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<tr>
<td></td>
<td>10.08</td>
<td>9.56</td>
<td>10.60</td>
<td>11.41</td>
<td>15.22</td>
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</tbody>
</table>

**Source:** HRD Ministry Report

Social and Scientific Research (I.C.S.S.R.) and Indira Gandhi National Open University (I.G.N.O.U.) have been set up, to promote higher education research.

Figure 3 depicts the amounts spent by our Government, under its five year plans, on elementary and higher education.

Technical and Management Education:

Technical education is one of the most significant components of the H.R.D. spectrum, with great potential for adding value to products and services, for contribution to the national economy and for improving the quality of life, of the people.

The All India Council of Technical Education (A.I.C.T.E.), has been vested with statutory authority and it ensures significant development in the field of technical education.

In the late 50s, the Administrative staff college of India (A.S.C.I.) Hyderabad, the National Productivity Council (N.P.C.) and the All India Management Association (A.I.M.A.) were set up, to impart management education and training.

The five institutions of Technology (I.I.Ts) four I.I.M.s, (Indain Institutes of Management) National Institute for Training in Industrial Engineering (N.I.T.I.E.), sixteen
Fig. 3

Figure showing amounts spent by our Government, on Elementary and Higher Education.

Figures in parenthesis in millions of rupees.

Source: Dr. R.V. Vaidyanatha Iyyar, Educational Planning and Administration in India. Retrospect and Prospect. Department of Education M.H.R.D.
### Table 2.3
Schemewise Expenditure of Centrally Sponsored Schemes of Government of India

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>I. Elementary Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Operation Blackboard</td>
<td>376.34</td>
<td>142.00</td>
<td>133.00</td>
</tr>
<tr>
<td>2. Non formal education programmes for 9-14 age group children</td>
<td>86.28</td>
<td>30.00</td>
<td>51.04</td>
</tr>
<tr>
<td>3. Non formal education programmes exclusively for girls.</td>
<td>47.97</td>
<td>25.70</td>
<td>34.02</td>
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<tr>
<td>4. Teacher Education</td>
<td>129.21</td>
<td>59.80</td>
<td>73.00</td>
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<tr>
<td></td>
<td>639.80</td>
<td>257.50</td>
<td>291.06</td>
</tr>
<tr>
<td><strong>II. Secondary Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Vocationalisation of secondary education</td>
<td>128.99</td>
<td>84.20</td>
<td>137.95</td>
</tr>
<tr>
<td>2. Improvement of Science education in schools</td>
<td>89.95</td>
<td>20.60</td>
<td>34.08</td>
</tr>
<tr>
<td>3. Education Technology</td>
<td>55.07</td>
<td>17.50</td>
<td>31.95</td>
</tr>
<tr>
<td>4. Integrated education for disabled children</td>
<td>9.46</td>
<td>3.00</td>
<td>2.70</td>
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<tr>
<td></td>
<td>283.47</td>
<td>125.30</td>
<td>206.68</td>
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<tr>
<td><strong>III. Adult Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rural functioning literacy programmes</td>
<td>172.83</td>
<td>40.00</td>
<td>52.00</td>
</tr>
<tr>
<td>2. Post literacy and continuing education</td>
<td>35.34</td>
<td>13.50</td>
<td>22.00</td>
</tr>
<tr>
<td>3. Strengthening of administration</td>
<td>17.13</td>
<td>6.00</td>
<td>6.75</td>
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<tr>
<td></td>
<td>225.30</td>
<td>59.50</td>
<td>80.75</td>
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<tr>
<td><strong>IV. Language Development</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Hindi teacher training colleges in Non-Hindi speaking areas</td>
<td>0.89</td>
<td>0.40</td>
<td>0.60</td>
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<tr>
<td>2. Appointment of Hindi teachers in Non-Hindi areas</td>
<td>8.47</td>
<td>2.00</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>9.36</td>
<td>2.40</td>
<td>3.10</td>
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<table>
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<tr>
<th>Schemewise expenditure of externally aided projects</th>
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<td>Name of the Scheme</td>
<td>External Agency</td>
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<tr>
<td>I Elementary Education</td>
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<tr>
<td>a) Shiksha Karmi project in Rajasthan</td>
<td>S.I.D.A., 1987</td>
</tr>
<tr>
<td>b) Mahila Samakhya</td>
<td>Sweden</td>
</tr>
<tr>
<td>c) Bihar Education project</td>
<td>DUTCH, 1989</td>
</tr>
<tr>
<td>d) U.P. Education Project</td>
<td>UNICEF, 1990</td>
</tr>
<tr>
<td>e) National Population Education</td>
<td>World Bank, 1991</td>
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<td>f) Technician Teacher Training Institutes</td>
<td>U.N.D.P., 1990</td>
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<td>g) Technican Teacher Education at Polytechnics</td>
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<td>II Technical Education</td>
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<td>I Elementary Education</td>
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<tr>
<td>a) Shiksha Karmi project in Rajasthan</td>
<td>S.I.D.A., 1987</td>
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<td>b) Mahila Samakhya</td>
<td>Sweden</td>
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<td>c) Bihar Education project</td>
<td>DUTCH, 1989</td>
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<td>d) U.P. Education Project</td>
<td>UNICEF, 1990</td>
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<td>e) National Population Education</td>
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<td>g) Technican Teacher Education at Polytechnics</td>
<td>World Bank</td>
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</table>
Regional Engineering Colleges (R.E.Cs), National Institute of Foundry and Forge Technology (N.I.F.F.T.), International Centre for Science and Technology Education (I.C.S.T.E.), Small Industries Extension Training (S.I.E.T.) are all actively imparting technical education and training, in various fields and have registered excellent progress. A sum of Rs. 278 crores, was spent in the VI Plan, for Technical Education. This figure in the VII Plan, was 1085 crores. A sum of Rs. 3080 crores is proposed to be spent in the VIII Plan (1992-97).

H.R.D. Education:

The Indian Society for Training and Development (I.S.T.D.), the premier institution in the field of H.R.D. in our country, was launched in 1970. It has been endeavouring, to promote the progress of the training and development function, in India. The Xavier Labour Relations Institute (X.L.R.I.) Jamshedpur, established a centre for H.R.D. and in 1985, a professional body "The National H.R.D. Network" was founded. This body disseminates H.R.D. information, develops H.R.D. professionals and aims at carrying the H.R.D. movement forward, by educating its members, through its periodical "The H.R.D. News Letter". The National Institute of Personal Management (N.I.P.M.) Calcutta, Tata Management Training Centre (T.M.T.C.) Poona, Tata Institute of Social Sciences (T.I.S.S.) Bombay conduct informative and educative courses, to train personnel, in the field of management and training.
In 1990, the "Academy of H.R.D." was set up by the National H.R.D. Net Work. It offers certificates, diplomas and other training programmes, conducts research and undertakes publications, for disseminating research findings in H.R.D. In the course of time, it will surely become the major spring board, for H.R.D. education, in the country.

Adult Education:


II. Culture:

The department of culture, makes efforts, for the preservation, promotion and enrichment of the cultural traditions of the country, through its infrastructure, as also through its supportive institutions, in the fields of archaeology, anthropology, museums, libraries and the like. Festivals of India, in foreign countries and their festivals in India, enable us to know one another's cultural heritage. Efforts are made, to bring people of various countries of the world, closer to the people in India, through cultural agreements and cultural exchange programmes. A sum of Rs.84 crores was spent for Art and Culture in the VI Plan. The corresponding figure, for VII Plan, was Rs.451 crores. The VIII Plan proposes to spend Rs.1210 Crores for the same.
III. Arts:

The department of arts, has the ultimate objective, of facilitating the application of sophisticated electronics technology, to scientific studies of cultural heritage and multi-media documentation of cultural source material. The aim is, to bridge the conceptual charm, between science and modern knowledge on the one side and traditional knowledge, arts, crafts, skills, on the other.

The Indira Gandhi National Centre for Arts (an autonomous trust under the Department of Arts), has been designated as the nodal agency, for the National Information System, and data bank for Art, humanities and cultural heritage.

IV. Women and Child Development:

This department makes concerted efforts, to bring women into the main stream of national development, through various socio-economic programmes, seeking to guarantee for them, equality of status and social justice. A crucial step in this direction, is the drawing up of the National Perspective Plan (N.P.P.), upto 2000 A.D., for Women, which is a long term overall policy, guided by the principles and directives, relevant to the development process. The plan is linked to the national targets, determined for the end of the century, in
respect of certain basic indicators such as health, education and employment. A National Resource Centre, to extend research, training and information services, is also set up.

The 20 point economic programme, announced by our late Prime Minister, Smt. Indira Gandhi, projected for 1000 programmes, for Women and Children, as against the 6th Plan target of 600. Of the 20 points, as many as 13, were concerned with the social and economic upliftment of the rural community, scheduled castes and scheduled tribes, urban slum dwellers, under privileged women and children and other vulnerable sections of society.

The commission on Women, has been set up in 1991. It examines the planning process and reviews the resources allotted, for the uplift of women. Currently, they are getting hardly 3 percent of the national resources. It has been suggested that the commission should work, towards building up a constituency for women.

V) Youth Affairs and Sports:

The National Youth Policy, National Service Scheme (NSS) for university students, are some of the important features of this department. The N.S.S. contributes to nation

building activities, through community services. Nehru Yuva Kendras, spread over 401 districts, aim at exposing the rural/non-student youth, to new opportunities, in various districts of the country, apart from promoting literacy.

The department of youth affairs, provides massive assistance, for organising meaningful national integration schemes, training of youth, youth exhibitions and voluntary organisations. Youth hostels are provided, to provide facilities for youth travel, youth festivals and exhibitions.

In sports, the department strives for the attainment of twin goals of excellence in performance, in prestigious international events and diversifying activities. The Sports Authority of India, has become the premier institution, for identification of talent, training of elite sports persons as also development of sports academics. With a view to enhance the competitive edge of the sports persons, the department emphasises, on creation of a world standard infrastructure, in specified places. A sum of Rs.223 crores was spent for this department, in the VI Plan as compared to Rs.485 crores in the VII Plan. The VIII Plan estimates for this department are Rs.1525 crores.

Thus, the department has increased the number and intensity of intellectual co-operation activities, in the field of physical education and sports.
H.R.D. in Government and in Industry:

H.R.D. practices and processes have been existing, in some form or the other, in the public and private sectors of our country, since a very long time. However, a serious thought to the potential capacity of the worker and a professional outlook to H.R.D., started only in the early 70s.

In India, broadly, H.R.D., in our Government, can be given two interpretations. "The first can be that it can refer to the H.R.D. activities in the various ministries, departments and Government agencies. The second interpretation is that it refers to the role of the Government, at the macro environmental level, policies and conditions, which affect H.R.D. in various other organisations". 81

Our Government, has been seriously making efforts, to develop its administration, not just for tomorrow's need, but for all times to come. It has undertaken training activities for its personnel, job rotation, selection, manpower forecasting and maintaining a personnel data bank. With the introduction of 5 year plans, after independence, Government of India has assumed a developmental role, without neglecting its conventional regulatory role, so that required attention, to resource mobilisation and utilisation, is given.

After the setting up, of the Indian Administrative Services and the Administrative Reforms Commission, through the personnel department of the Home ministry, Government officers were deputed for training, in and outside the country, computerisation of manpower data was done and there were systematic and thoughtfully considered postings, for specialised assignments.

Public Sector:

From 1967, the Institute of Applied Manpower Research, began to offer programmes, to develop managers from enterprises, in manpower planning and development. Simultaneously, leading companies began to have their own incompany programmes. Among the public sector corporations, having training establishments, are Coal India (Staff college of CIL), Steel Authority of India Limited (S.A.I.L.), Fertilizer Corporation of India (F.C.I.), Management Development Institute (M.D.I.), L.I.C. of India Ltd., Hindustan Aeronautics, Bangalore, A.I.R. Staff College, Bombay, Indian Airlines, Indian Oil, Bharat Heavy Electricals Ltd., etc.

Banks got involved in this movement, with the establishment of the Banker's Training College, of the Reserve Bank of India. It prepares its personnel, in the field of executive development, in the banking sector.
In the Co-operative Sector, the setting up of a committee, for co-operative training, by the National Co-operative Union, paved way for training facilities. The Vaikunth Mehta National Institute of Co-operative Management, Poona (V.M.N.I.C.M.), acts as the main agency for the training and development of managers, for co-operatives.

In Public Administration, there has been development in the field of training, through the Indian Institute of Public Administration and the National Academy of Administration. The A.I.M.A. also undertakes management education and trains personnel, in management education. The Institution of Defence Management (I.D.M.) was started in Secunderabad, in 1970, with the main objective of preparing officers, to meet emerging personnel and technological needs of the defence services and thus enhance the operational preparedness of the Services. The I.D.M. ensures H.R.D. in Army, Navy and Airforce and is the premier institute of management, in the defence services.

Our Government, has been deputing its officers, to attend international training programmes, thanks to grants from organisation like the Nuffield Foundations, Ford Foundation and the U.A.S.A.I.D. The establishment of the Asian Productivity Organisation, has greatly encouraged programmes, for Small Industry Management Training.

Private Sector:

In the private sector, "Larsen and Toubro Ltd., is probably the first company in India, to design and implement, an integrated H.R.D. System, in the early 70s". 82

Later, by the end of that decade, many organisations seriously took up H.R.D. programmes, to develop their capacities. Private oil companies like E.S.S.O., now Hindustan Petroleum, Burmah-Shell, now Bharat Refineries and the Public Sector Indian Oil, accepted training, as a crucial tool, for the development of their human resource. Companies like Hindustan Lever, International Business Machines, Dunlop, Metal Box, Union Carbide and business houses like Tatas and D.C.M., established their own staff training centres, to shape their managerial personnel.

Many organisations, have moved in the direction of establishing H.R.D. departments. They have realised that H.R.D.

is not just training, as was the general opinion but that it encompasses, many more mechanisms which are useful, to improve the effectiveness of the employees.

In 1984, from a survey of 53 companies, Rao and Abraham found that in 30 percent of them, a separate H.R.D. department existed, in another 38 percent of them, H.R.D. existed as a separate function, but as a part of the personnel department, with specially designated H.R.D. personnel. Fifty nine percent of the organisations surveyed, did not have a formally stated policy, focussing on H.R.D.

The setting up of a new ministry for H.R.D., in 1985, has created more awareness of H.R.D., in both, the public and private sector. Nearly every large organisation, has a separate H.R.D. department, which concentrates on all round development of its personnel.

Approach Towards H.R.D., In Our Five Year Plans:


the human quality of living. There is a positive correlation between H.R.D. through poverty eradication, education, health and family welfare etc. and the rate of growth in gross domestic product (World Bank Report, 1980). Hence, having realised the strategic role played by human resources, in speeding up the process of development in the domestic market, increasing emphasis has been given by our planners, to create favourable conditions for H.R.D.

The first five year plan of India, commenced in 1951 (1951-56). For the purposes of human resource development, amounts were allocated by the Government for education, health and family welfare, housing and urban development and other social services like poverty eradication, scientific research, water supply and sanitation and rural development.

The role of education, in the process of socio economic transformation of self reliant development, of the economy, was recognised by the Indian planners and in 1964-65, the first policy statement on education, in independent India, was formulated. Thereafter, education has been given a crucial place, in our 5 year plans.

H.R.D. programmes, called the Minimum Needs Programmes, were accepted as a part of the development strategy, from the V Plan onwards. These included elementary and adult education, rural health and watersupply, rural housing, electrification
and roads, nutrition and environmental improvement of urban skills. The V Plan observed that "expansion of productive employment opportunities, is crucial to accelerate growth and reduce inequality. Idle manpower, the unemployed, underemployed and very thinly employed, are vast potential resources for development. If utilised, they could give a powerful stimulus to growth. Thus, full emphasis, on development of human resources, was given from V Plan onwards.

The VI Plan laid more emphasis on health care programmes, as investment on health is investment on man. As a part of the strategy for H.R.D., the VI Plan rightly assigned, a high priority, to programmes of promotion of gainful employment, eradication of poverty, population control and meeting of basic minimum needs.

Basically committed to social justice, our plans take special care of backward classes, the disadvantaged and unorganised groups of population, to bring them into the mainstream of development.

Resource Allocation Under the 5 Year Plans:

Table 2.6 portrays, the increasing amount of expenditure made under our 5 year plans, on H.R.D., programmes like (a) Education (b) Health and Family Welfare (c) Housing and Urban Development (d) Other Social Services.
a) Education:

Sincere efforts have been made by the Government, to spread education and eradicate illiteracy. The improvement in the literacy rate, as per the 1991 census, in comparison to the 1981 Census, and the previous figures, is an evidence of the Government’s efforts. The number of recognised educational institutions, has increased from 2.31 lakh in 1951, to over 8 lakhs at the beginning of the 8th Plan. The total enrolment, over the same period, has increased from 24 million to 150 million. The national stock of educated manpower, is estimated to have increased, from less than 4 million in 1951 to more than 50 million, by the commencement of the VIII Plan.

Table 2.5

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>S.C.</th>
<th>S.T.</th>
</tr>
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<tbody>
<tr>
<td>1991</td>
<td>24.9</td>
<td>7.3</td>
<td>16.1</td>
<td></td>
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</tr>
<tr>
<td>1951</td>
<td>24.9</td>
<td>7.9</td>
<td>16.7</td>
<td></td>
<td></td>
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<tr>
<td>1961</td>
<td>34.4</td>
<td>13.00</td>
<td>24.0</td>
<td></td>
<td></td>
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<tr>
<td>1971</td>
<td>39.5</td>
<td>18.7</td>
<td>29.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>56.37</td>
<td>29.75</td>
<td>43.56</td>
<td>21.38</td>
<td>16.35</td>
</tr>
<tr>
<td>1991</td>
<td>63.86</td>
<td>39.42</td>
<td>52.11</td>
<td>28.32</td>
<td>24.82</td>
</tr>
</tbody>
</table>

There has been a marked improvement in the literacy rate from 16.7 percent in 1951 to 52.11 percent as per 1991 census. Further, Table 2.5 indicates that improvement in the literacy rates of women, is much more than that in case of men. The female literacy rate improved from 7.9 percent, as per the 1951 census to 39.42 percent, as per the 1991 census, whereas the corresponding figures for men were 24.9 percent and 63.86 percent, respectively.

Government's efforts to bring up the socially down trodden, are also indicated in the improvement in literacy rates of the SC/ST from 21.38 percent and 16.35 percent respectively, in 1981, to 28.32 percent and 24.82 percent in 1991, respectively.

Table 2.6 gives a detailed account, of the amounts spent under the 5 year plans, for education.

A sum of Rs.1490 million, was spent on education in the I Plan. This figure increased to 2730 million, 6610 million, 9050 million, 17100 million, 29770 million and 76990 million in the II, III, IV, V, VI and VII Plans, respectively. Expressed as a percentage of the total amount spent by the Government of Social services i.e. Education, Health and Family welfare, Housing and Urban Development and other Social services, it was 32 percent in the I Plan, increased to 44 percent in the III Plan, later declined to 30 percent in the IV Plan, 28 percent,
Table 2.6
Planwise Expenditure on HRD, in India 1951-56 to 1985-90

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<tr>
<td></td>
<td>Amt %</td>
<td>Amt %</td>
<td>Amt %</td>
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<td>Amt %</td>
<td>Amt %</td>
<td>Amt %</td>
<td>Amt %</td>
</tr>
<tr>
<td>1. Education</td>
<td>149</td>
<td>32</td>
<td>273</td>
<td>32</td>
<td>661</td>
<td>44</td>
<td>354</td>
<td>36</td>
</tr>
<tr>
<td>2. Edu - Cumulative</td>
<td>149</td>
<td>422</td>
<td>1083</td>
<td>1437</td>
<td>2342</td>
<td>4052</td>
<td>7029</td>
<td>14728</td>
</tr>
<tr>
<td>3. Index of (2) Base  = I Plan</td>
<td>100</td>
<td>283</td>
<td>727</td>
<td>964</td>
<td>1572</td>
<td>2720</td>
<td>4717</td>
<td>9885</td>
</tr>
<tr>
<td>5. H &amp; FW - Cumulative</td>
<td>98</td>
<td>326</td>
<td>577</td>
<td>788</td>
<td>1402</td>
<td>2655</td>
<td>5067</td>
<td>11719</td>
</tr>
<tr>
<td>6. Index of (5) Base = I Plan</td>
<td>100</td>
<td>333</td>
<td>589</td>
<td>804</td>
<td>1431</td>
<td>2709</td>
<td>5170</td>
<td>11958</td>
</tr>
<tr>
<td>7. Housing and Urban Dev</td>
<td>129</td>
<td>27</td>
<td>149</td>
<td>17</td>
<td>128</td>
<td>9</td>
<td>73</td>
<td>8</td>
</tr>
<tr>
<td>8. Other Social Services</td>
<td>96</td>
<td>20</td>
<td>205</td>
<td>24</td>
<td>453</td>
<td>30</td>
<td>338</td>
<td>35</td>
</tr>
<tr>
<td>9. Total Social Service</td>
<td>472</td>
<td>100</td>
<td>855</td>
<td>100</td>
<td>1493</td>
<td>100</td>
<td>976</td>
<td>100</td>
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<td>1 + 4 + 7 + 8</td>
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<tr>
<td>10. Cumulative of (9)</td>
<td>472</td>
<td>1327</td>
<td>2820</td>
<td>3796</td>
<td>6783</td>
<td>12800</td>
<td>28717</td>
<td>63553</td>
</tr>
<tr>
<td>11. Index of (10) Base = I Plan</td>
<td>100</td>
<td>281</td>
<td>596</td>
<td>803</td>
<td>1434</td>
<td>2706</td>
<td>6071</td>
<td>13436</td>
</tr>
<tr>
<td>12. % of Total Social</td>
<td>24.1</td>
<td>18.3</td>
<td>17.4</td>
<td>14.7</td>
<td>18.9</td>
<td>17.4</td>
<td>14.6</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Sources: Economic Survey, Govt. of India, for the respective years.
19 percent and 22 percent in the V, VI, and VII Plans respectively. So, though there was an absolute increase, in the amount spent on education, during this period, the percent of amount spent, showed a declining trend. While the VI Plan had added 29770 million, the VII Plan has greatly contributed a record investment of Rs.76990 million, for the development of education.

b) Health and Family Welfare:

A sum of Rs.980 million was spent for health and family welfare, in the I Plan. This figure increased to Rs.2280 million in the II Plan, 2510 million, 6140 m, 12530 m, 24120 m and 66520 m in the III, IV, V, VI, and VII Plans, respectively. Expressed in terms of percent of the total amount spent on social services, it was 21 percent in the I Plan and came down to 19 percent, in the VII Plan.

Taking 1951-56 as the base, the index of cumulative expenditure on health and family welfare, went up to a record high figure of Rs.1,19,580 m in the VII Plan, in 40 years of planning.

c) Housing and Urban Development:

Provision of adequate housing facilities and all round urban development, has been one of the objectives of our 5 year Plans.
A sum of Rs.1290 million i.e. 27 percent of the total amount spent on social services, was spent for housing and urban development, in the I Plan. This amount increased to Rs.1490 m in the II Plan (17%) and came down to Rs.1280 m in the III Plan (9%). The relevant figures for the IV, V, VI and VII Plans were Rs.2700 m (9%), 11500 m (19%), 28390 m (18%) and 48400 m (14%).

d) Other Social Services:

Emphasis on direct H.R.D. activities, like poverty eradication, scientific research, water supply, sanitation and rural development, has been increasing, plan after plan, as indicated by the percent of expenditure on other social services. In absolute terms, the expenditure on this head has increased from Rs.960 m (20%) during I Plan, to Rs.2050 m (24%) in the II Plan, Rs.4530 m (30%) in the III Plan, Rs.3380 m (35%) in the 3 year Interplan period, 11980 m (40%) in the IV Plan, Rs.19040 m (32%) in the V Plan and to Rs.66890 m (45%) during the VI Plan, 1,56,440 m (45%) in the VII Plan.

In the VIII Plan also, H.R.D. has been identified as one of the priority development activities, inspite of severe economic efficiency measures proposed. The VII Plan, aims at H.R.D. in terms of literacy improvement, employment generation, youth and social welfare, population control, better nutrition.

health and family welfare, better housing and living conditions and clean drinking water, all of which are expected to improve the human resource productivity of the nation and thereby augment the physical employment and utilisation, for an accelerated overall economic growth and development.

In totality, H.R.D. takes into consideration, the impact of nutrition, health, family and community welfare upon children, adults and the old people. Unfortunately, it is observed that these factors are neglected. In each Plan, amounts spent on H.R.D. activities, are hardly 11 percent to 14 percent of the total needs of development. Even education and scientific research, with which H.R.D. is usually equated, got 6.9 percent of the total expenditure in the III Plan, which declined to 4.9 percent in the IV Plan, to 3.3 percent in the V Plan, to 2.6 percent in the VI Plan. 88

The expenditure on education, as a percent of the gross National Product (G.N.P.), is as low as 3.3 percent against 6.3 percent in U.S.A. and 7.6 percent in Canada. 89

India's expenditure on rural development, being 0.44 U.S. Dollars, is extremely negligible, as against 83.46 in Japan and 158.05 in U.S.A. Thus, per capita expenditure on rural development, in India, is 1/359 of that in U.S.A. 90

88. Indian Express, Bangalore, 22-2-92, page.3.
Though our Government has been trying to do its best to develop its human resources, much remains to be done in the field of H.R.D., especially in comparison with advanced countries. The peculiar phenomenon of brain drain in our country, may be attributed to the low priority given to H.R.D. in the past. As a result, there has been a large scale migration of skilled personnel to rich countries like U.S.A., U.K. and Canada. This has to be arrested and the creative and innovative abilities of our personnel, must be fully exploited to the nation's advantage.