CHAPTER- III

RESEARCH METHODOLOGY
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Research Methodology

Statement of The Problem

Human behaviour is dynamic in nature; it is very difficult to make prediction about human behaviour, apparently no two individuals are identical in respect of their personality, behaviour, perception, attitude etc. In view of this universal difference, therefore, human resource is heterogeneous in nature. In spite of differences in behaviour, it contributes to the successful functioning of the organization. The fact remain is that human beings make the organization always successful. Although every human being is good to the organization, it is only such human beings who have skill, knowledge and competencies, positive frame of mind, self-motivation and sprit of dedication, commitment and sincerity, prove to be the best assets of any organization. Hence the true spirit behind every organization is to make efforts to develop such people, and make them always ready to work for the prosperity.

Human resource as opined by many is a vital, vibrant, and useful resource of every organization. No organization can deny that majestic and wonderful capacity which human resource has to produce excellent and outstanding works. Such organization would be lucky if it possesses, dedicated and active human resource. The wonderful abilities of human beings have added a new dimension to the HRD.

Those years are gone, when employees were merely looked upon as a factor of production, autonomy was not given to them and they were treated very badly. In recent years the attitude of management has became more soft and considerate towards employees. Employee
development has been on top priority of corporate agenda in these
days. Many progressive organizations have already responded to this
cause of developing their employees through their training and
development programme. Their responses have been manifested further
in the form of either setting up a new HRD department, or appoint an
executive with few supporting staff to carry out the function of
competency building.

Presently most of the progressive organization like both public
and private sector industries in our country have initiated pursuits to
concentrate upon downsizing their workforce. Further cost reduction,
quality improvement, enhancement of productivity, introduction of the
technique of multiskilling through extensive training and retraining
methods, job rotation, technique of teamwork and emphasis on quality
circles, improvement of organization culture have also been on the task
agenda.

This may include a number of characteristics such as importance
given to human resource, openness of communication, encouragement
given to risk taking and experimentation, feedback given to employees
to make them aware of their strengths and weaknesses, a general
climate of trust, faith in employees capabilities, employees tendency to
help each other and to collaborate with each other. Thus industries in
India have felt the need to adapt these practices in view of changing
scenario. Industries have gained an understanding that their survival is
at stake if they view their employee in isolation. Therefore join hands
with them, trust them and strongly believe in their potential to change
and develop. Industries are in the quest to develop their human
resource. This reasoning has motivated researcher to take up research
work in the area of HRD and employee training, to understand these
practices in different industries.
The present study makes a sincere effort to find out the importance given to training, determination of training need, its effectiveness in terms of building competencies of employee, its utility, training method, role of trainer, evaluation technique of both on the job and off the job training. This study also makes an effort to know the understanding of employees regarding HRD, and related technique of employee development, employee motivation, and involvement in the implementation of HRD pursuits and also to make an enquiry regarding the change in the attitude among employees.

The research scholar was intensely motivated to take up this research work mainly due to the exposure to this subject when he was doing his M.A. (SW) course. Field Work is an integral part of this professional course, students are exposed and trained in various field of social work through placing them to the different field work agencies. During Final year of the course, researcher was placed for his field work in one of the reputed large-scale industry in the region, located at Hubli i.e. in Kirloskar Electric Company limited. It is an engineering industry excels in the manufacture of the electric motors. Research scholar got a very important exposure to all the personnel functions of the Personnel Management relating to the recruitment, retainment, and retirement. Among these prominent functions retainment is of more complex and critical function than other two, researcher got interest in the area of employees development which was very hard, complex and challenging but most rewarding, because this function deals with complexity of the group behaviour and attitude of human resource.

As per the Karnatak University Regulations, soon after the completion of M.A. final theory examination students are required to work for six weeks continuously in agencies of their choice. As research scholar was interested in doing his Block placement in industry he was
placed in the BILT – Chemicals unit, Karwar. This industry is also a reputed and large-scale industry in the Uttar Kannada region, it manufacture caustic soda and other chemical products. Here also researcher had a good exposure to the personnel management and learnt about issues and challenges of the employee development and training. This served as a motivational factor and induced the researcher to take up the research work in the area of the HRD and employee training.

**Title of The Study**

Human resource Development: A Study of Employee Training in selected industries in Karnataka.

**Aim:** The aim of the study is to explore the HRD and Training in industries with an emphasis on perception, attitude opinions of employees supervisors and the management. It also makes an effort to know the understanding of employees towards HRD and its allied aspects.

**Objectives**

The study is based on the following principal objectives:

1) To study HRD and Training system in selected industries of Karnataka.

2) To study and analyse the effectiveness of training programme in relation to organizational goals.

3) To identify the perceptions, opinion and attitude of employee towards training as a sub system of HRD.

4) To study and understand employees' opinion about the relevance of the suitable training method.
5) To assess the impact of training on productivity, and organizational development, and allied aspects.

6) To make suggestions, if any, for policy and programmes.

**Research Questions**

In order to fulfill the objectives, some questions were posed and answers were sought. They are listed as under:

1) Human resource is the most useful and active resource than other therefore sustained emphasis on its development will yield significant results.

2) Organization where enough attention is given to human resource and where there is a sustained endevour to develop them at work will make organizations significantly competitive.

3) Employees who undergo training will show significant increase in skill creativity and performance than otherwise.

4) Employees can be better trained and developed on the job and in the organization, than off-the job and outside the organization.

5) Unite we stand divide we fall. Employees where they developed right spirit of understanding and sense of pride in their work and to their organizations will be the secret of organization success, empathy and indifference between employee and employers is an obstacle to progress.

6) Employee development is a continuous responsibility than a liability. Human resource is the most important and useful resource, opportunities like in the form of training and development can convert an ordinary performer into a good performer.
7) Discussion, Demonstration, and Role-play training techniques seems to bring lasting impression on the operative category of employees than otherwise.

8) Self confidence, skill application, and job performance and attitudinal change would be more in case employees receive training and refresher programmes.

9) True success of training depends upon the thorough preparation of trainers and involvement of trainees than otherwise.

10) Evaluation reveals true outcome of the training conducted, however evaluation of training programme differs to the greater extent between on-the-job and off-the-job training, and most participants hesitate to offer negative areas of training as feedback.

11) Training is blamed more often for inadequate results, training is a means to an end but not end in itself.

12) HRD has a wonderful potential to contribute to the prosperity of the organization through developing human resource, it does not happen on its own unless backed up by the sincere efforts of employer and employees.

13) Opportunity and recognitions offered by the organizations, more often induce employee to open up within and stimulate internal urge to go for better resource discovery and contribution. Voluntary forums at workplace are wise platform, which offer mutual benefits.

14) Every human being is potentially divine; given the opportunity every body proves his identity and recognition. Suggestion scheme and teamwork offer such opportunity to cull out the hidden talent of employees.
15) Present scenario is more liberal, open than complex and rigid. More humane approach is entering in the management text.

16) Under present circumstances a better social vision, open and responsible attitude is desperately require which will keep informed every one regarding what's happening around.

17) Unbiased appraisal precisely offers true feedback regarding work done, proper appraisal is a quest of work improvement.

18) Self-satisfaction is best satisfaction. Good supportive system promotes good job satisfaction.

19) In view of resorting size of the workforce to an apt limit, multiskill and job rotation turn out to be as more relevant now than before.

20) Career plan for personnel is innovative area, which promotes spirit of pride and enthusiasm.

Research Design

The main purpose of the study was to know the training and HRD practices in different industries, the developmental initiative of industry to give its employees the functional skill and knowledge and abilities. It was therefore decided to use explorative -cum- descriptive research design. This research design fits into the pattern of investigation wherein HRD methods and branches have been compared based on the opinions of respondents from public and private sector, confirmed or otherwise by supervisors and executives.

Scope of the Study

The present study is done on Human Resource Development and its premier sub system on training, especially regarding employee/workmen training. This study focuses its attention to collect employees responses about the HRD in the industry. HRD, an important part of
the study and the aspect covered on this include HRD, HRD implementation methods and achievement of organizational goals, creating development motivation, among employees, communication of philosophy. This research also pertains to study another important concept relating to training aspect like place of training in the organization, determination of training needs, training method, deputation of employee to the training, trainers role in the effective conduct of training programme, evaluation of training programme and the like.

The attempts of the researcher do not touch the aspect in the present investigation namely, budget preparation, or cost of training, socio economic burden over the organization, behavioural and adjustment problem of employee. Most of the studies seem to have touched upon, one or the other aspect such as job satisfaction, performance appraisal, HRD and training and development, stress management, productivity raising, personnel functions etc.

This study tries to focus on the gains incurred due to development and training, in terms of direct and indirect gains, the interpretation of data however reveals this aspect. Some organization have good training and development policies, and prepare very meticulously by taking into account every single aspect and also arrange good faculty to impart the training. But real problem comes at the time of implementation of the training programme. This certainly defeats the true intention of the training, and training thus becomes merely a decorative piece.

Thus the present study tries to understand why training and development and what best can be done to boost employee competencies, skills, and knowledge. In addition to the employee
working in various public and private sector industries, the study also includes the supervisors and managers who are heading the respective/sections departments and having greater responsibility to make better preparation to develop their employees.

**Sample**

To cull out an apt sample from the universe of study on hand involved a lot of practical problems. More than twenty industries were officially contacted, some sent in regret letters while others needed plenty of goading/ persuasion etc. Finally ten industries, as mentioned, before were selected. And from these ten industries workers at the rate of thirty were selected. Finally, a purposive sample was drawn for the study, in consultation with respective managements.

In accordance with the objectives of the present study, a purposive sampling technique was used, on the basis of this technique, individual respondents were selected from the industries under study. It may be noted that, employee both irrespective of whether young and old were included in the sample.

The pilot study helped in knowing the type of training and developmental methods used for the development of human resources. A total of 300 employees were included for the purpose of the study for the obvious reason. Irrespective of the total number of supervisors working in each industry, after consultation with the officials and other concerned in the factory, on random basis, as many as 50 supervisor were included. The criteria adopted to select the supervisors were that they were the links between employees and management; they communicated instructions from the top to employees and gave the feedback of work done to the higher ups. Supervisor selected were having reasonably long span of work experience, adequate knowledge regarding employee development.
The executive who were heading the Personnel /HRD department or designated to look after the training and development functions, from both public and private sector industries were selected. Thus 10 executives were included for the study.

**Tools of Study**

A systematic and apt interview schedule was prepared taking into account the present status of HRD and training in various industries as known to the researcher. The research questions and scope immensely helped to form the interview schedule. Similarly for supervisor / executives separate schedules were prepared consisting of various relevant questions and quarries.

**Method of Study**

After finalizing geographical area, industries and sample for the actual study, pilot study was undertaken for employees, supervisor, and executive. Interview schedule, prepared for the study was used and thus pilot study was conducted. Pilot study paved way for better understanding of employee training and development need.

Thus, the present study tries to understand why training and development and what best can be done to boost employees' competencies, skills and knowledge. In addition to the employees working in various public and private sector industries the study also includes the supervisors and managers who were heading the department or put in charge to look after the function of training and development in their respective industries.

**Place of Study**

Before finalizing the industries for the purpose of selection for the study, the geographical area was considered. The Northern and
Southern part of Karnataka State, among other includes 6 revenue districts of Bangalore, Belgaum, Bellary, Mysore, Shimoga, and Uttar Kannada. Karnataka state in India is divided into four different zones viz, North, South, East, and West. The predominant concentration of large scale industries both public and private sector are found in Southern part of Karnataka, therefore researcher has selected industries in these places for his study.

After restricting to the geographical area, a preliminary survey of theoretical literature regarding the industries in the region in this state was done. It was learnt that there where enough industries where the study like present one is possible to be undertaken.

**Selection of Industries**

**Inclusion criteria**

Regarding inclusion of industries in the study, some basic criteria was viz

1) Those industries where minimum of 250 workers presently are working continuously throughout the year.

2) Where there is continuous flow of production.

3) Where there was a training department and facilities.

There were 18 such industries fulfilling the above criteria, irrespective whether they were public (govt. undertaking) or the private concerns. After formal communication regarding the permission for data collection was obtained.

**Exclusion criteria**

1. Seasonal Industries were not included.

2. Industries employing lesser than 250 workers were not considered.

3. Cooperative sector was not included.

4. Multi National Companies (M N C) do not find a place in this study.
**Period of Study**

A pretty long period of time was required to collect data for the present study due to distance, delay in permission and the like. Data was thus collected during 2001-02.

**Data Collection**

Apparently as in any scientific investigation process, the present study has used interview schedules to collect the necessary data. The interview schedule prepared for the employees focused upon information regarding training undergone, suitable training method, preparation of training programme, employee deputation, utilities and effectiveness, HRD understanding, employees involvement in the organizational development etc.

Personal talk, interviews and discussion were made with the concerned respondent at different places like canteen, teastalls, and rest room and at the department. Methods of social work such as Case Work and Group Work were used to obtain required and relevant information from the respondents.

As mentioned earlier, supervisor and manager were other two important respondents for the present study. Supervisor were contacted with the prior permission of their concerned HOD at their respective places, and heads of the HRD or Personnel Department were asked to give their responses in the questionnaire. All supervisors and executives responded quite cooperatively with adequate understanding.

**Statistical Analysis**

The data, thus collected, was tabulated and the required statistical test chi-square was used to find out the level of significance of various variables to establish the correlations between facts under purview.
Findings of The Study

Data has been statistically treated and correlation established. Many revealing factors have emerged from the significant results that are shown in the Tabular and self explanatory diagramatic presentation. These are presented, at length, in this thesis.

Limitations of the study

At this particular juncture it is inevitable to emphasize certain limitations of the present study as stated below.

1) Employees previous training before joining the present job was not included.

2) Study confines itself to the region of selected geographical area.

3) Low understanding of worker and supervisors posed a problem when for each question deep probing had to be done.

4) Some employees did not cooperate and their responses remained unanswered.

5) Some of the worker were afraid of the management and hence at the interview time refused to express their genuine responses.

6) Some employees were suspicious of the intensions of the investigator and they did not open up properly.

7) Some employees also appeared to be exaggerating their opinions.

8) Most of the employees do not possess good understanding about HRD, therefore investigator had to spend lot of time to elicit apt responses from them.

With all these limitations and constraints of time at the disposal, the present study throws light on various aspects of enquiry on hand.
Further chapter will help in knowing the response patterns of the enquiry under purview through simple tables and diagrams.

**Chapterisation**

Chapter – I is the introductory chapter. The first part of the chapter is an overview of the HRD and training and also related information. The Thesis begins with introductory information pertaining to the significance of the study relating to HRD and training. Chapter-II combines an understanding of the studies done in the said area and the contribution for growth of the subject. An attempt is done to review the relevant literature pertaining to the subject.

Chapter-III deals with the method of study, the set objectives, and the research questions, alongwith the design and schematic picture relating to data collections and limitations thereof.

Chapter-IV presents the analysis and interpretation of data in tables and diagrams.

Chapter-V presents the discussions about the foregone results described with the supportive material. Conclusions are presented alongwith workable suggestions drawn. Avenue for further research have also been outlined and would be presented in the main dissertation.

**Profile of the Industries**

Ten industries chosen for the study. Equal number of industries were both from public and private sectors. These industries differ in terms of their product manufactured, size and technology. An endevour is made in this section to depict a profile of each industry chosen for the study.

**West Coast Paper Mills Limited, Dandeli**

The West Coast Paper Mills limited was established in the year 1955, at Dandeli in Uttar Kannada district of Karnataka state. In 1956
the factory started with an authorized capital of Rs 5 crore, total production commenced with effect from 18th November, 1958. The then honourable union finance minister, Government of India, Shri. Moraji Desai, inaugurated the factory on 19th May, 1959. Thereafter the regular production continued, availability of basic raw material's like bamboo and hard-wood in abundance and availability of water in all season from the kali river and railway link to transport raw materials and finished products promoted the promoter Bangur to set up this huge plant in the remote forest arch. Bangur's are pioneer's and promoter's of various Industrial undertaking management services and Industrial development. The installed production capacity at the initial stages of the mill was 100 M.T. per day later inspite of various constraints faced in the availability of raw material's, power and coal etc., the management had been making herculean efforts to make the mill economically viable by adopting modern technology and equipment in both manufacturing as well as management system. The management has been particular about the quality of the product manufactured and whenever, a new variety of paper is taken up for manufacturing it has been always kept in mind that company's product should meet not only the customers satisfaction, but also to meet customer's expectation. In 1993, the company could successfully implement the modernization programme and increase the installed capacity of the mill up to 250 M.T. per day.

Company has suitably developed several varieties of products, quality paper with consciousness of building of value added product's, the cheque's papers, printing paper, located paper with five glare, Zerox-paper been developed from consumptional, cultural and art papers, the company has also plans to produce duplex board which have great demand in the market. The expert in the Industry believed that there is seasonal cycle in the market having productivity of 6 years. Industries have suffered during rainy season, now it is believed that the
industry is in midst of boom season. Inspite of the fact that there is encouraging competation. The demand for paper has been fast growing. However, the paper per capita consumption of paper in India is 1.5 k.g. and whereas in China it is 7 K.g. and in the U.S.A. it is 15 K.g. With the large scope for further development it is estimated that by 2000 A.D. there will be a higher demand for paper against estimated installed capacity thereby. There will be a large gap between demand and supply notwithstanding the estimated supply the estimated higher demand the industry suffered from multi pronged problems basically being capital intensive and labour oriented with an output ratio 1.8. There are 340 paper mill's with aggregate capacity of 340 M. T. per annum. However operating capacity is only 2.9 M. T. as several have remain closed 50% of the paper production is from large scale paper mills having installed capacity of 10, 000 T. P. alongwith these fatory runs three shifts and a general shift and its present Manpower is Permanent Worker 3000, Casual labour 250,Contract labour 600 staff 715.the organisational structure is characrised by high degree of delegation of authority with communication process being quite free and open with not too much of formalism. The human resource development function has been carried very successfull as being part of the Personnel department since 1970,s recent years the top exectives of the personnel department is paying good attention

**Bilt Chemicals Limited, Binaga, Karwar**

Bilt Chemicals limited, Binaga Karwar is the torchbearer of the Thaper Group, which is one of the top conglomerates in India today. With the workforce of 650. Bilt is an acknowledge leader in the manufacture of caustic Soda, Technical grade phosphoric acid and Diacalcium phosphate. At Karwar, on the South West Coast of India, is spread the Bilt chemicals complex, enveloped in evergreen foliage. On
the side of the factory there is Arabian sea and on the other side there are western ghats, this place was thought to be the most suitable place for establishing this factory as it is easily accessible by sea and road for transportation of finished goods and for supply of raw materials. Therefore they acquired 263 acres of land here in Binaga and established this factory. It is 5 kms away from Karwar. The Karwar unit was established in the year 1974. Bilt chemicals is the part of the ‘Thapar group’. The founder of the group was late Lala Karam Chand Thapar, one of the most illustrious scion of industrial India. He started with a small coal agency, brought a coalmine given up as sick by the Britishers. The business grew and soon Thapar’s were the largest producers of the coking and non-cocking coal. The present chairperson of the organization is third son of the late Lala Karam chand Thapar. Ballapur Industries Limited, more popularly known as Bilt. Bilt is the flagship of the Thapar group of companies, which stands third in assets turnover and ranks in top twenty companies in India. Mr. L.M. Thapar is the chairman and Managing Director of Thapar group of companies. Formally company was known as the Ballarpur paper and straw board mill limited karwar division. The Head office of the factory is situated at Delhi, which has three divisions namely: Paper division, Ballapur. Vanspati division, Yamanagar, Punjab. Chemicals Division, Binaga, Karwar.

The first foray into the manufacture of chemical was made when captive caustic soda and chlorine plants were set up at the unit Ballapur and unit shreegopal to meet the captive plants needs of these paper plant. These captive plants gradually grew in size and began to cater to the outside market. Bilt Company sensed the rapidly growing demand for caustic and chlorine and in the early 70’s set up a full pledged chemical factory near the costal town in Karwar in Karnataka.
Bilt quickly ventured into the manufacture of downstream chemicals like hydrochloric acid and phosphoric acid. Today BILT is India’s largest manufacturer and exporter of technical grade phosphoric acid (60% of market share) and a dominant player in caustic soda, chlorine and hydrochloric acid markets.

Development of Human Resource had also been a priority, the name of the department which looks after personnel function is known as Department of Peoples Development and Communication within BILT. However the fear of liberalizations has set in the process of competition within the country and overseas. Chemical division has long since set its wheels in motion of the path to superior performance.

The introducing of total quality management here would be in completed sign with the full realization of Bilt’s mate mission, By effective manpower utilization Karwar unit has made significant process towards greater productivity and cost competitiveness. Quality management system at unit Karwar has been certified by ISO-9002. On 1st January 1999, the name of the company has been changed from Ballapur Industries Limited To ‘Bilt Chemicals Limited. The company’s concern is not only to produce chemicals but also it gives equal concern to the environment as well as to the public surrounding the company at large.

**Jindal Vijayanagar Steel Limited, Torangallu, Dist : Bellary**

The time was when independent India’s pioneering industrialists were charting the future of this nation. An enterprising young man, O.P. Jindal was drawing the blueprint of his small business of trading in steel pipes. It was an arduous journey but his vision, determination and belief helped him realize his dreams. By 1952, he was proficient and experienced enough to set up the group’s first factory at Liluah, near Calcutta for the manufacture of steel pipes, bends and sockets.
Soon thereafter, a similar manufacturing unit was set up in Hisar. This period also saw the emergence of a professional culture. Jindal-the proprietorship metamorphosed into Jindal-the Organization.

**India's Fully Integrated Green-field Steel Project**

Jindal Vijayanagar Steel Ltd. (JVSL), a Greenfield integrated steel plant with a capacity of 1.60 million tones per annum of hot rolled coils. JVSL has collaborated with Voest Alpine of Austria, which will provide a unique advantage in manufacturing and technology. Other significant breakthroughs: Jindals were the first to develop an indigenous Argon Oxygen Decarburisation [AOD] converter, a state-of-the-art refining process, which led to a dramatic improvement in the quality of stainless steel. Jindals have also pioneered India's first continuous slab casting machine and India's first hot steckel mill to produce hot rolled stainless coils.

Jindals are the first to have developed the Indian private sector's first DD & EDD grade mild steel wide strips. The process of Deep Drawing [DD] and extra deep drawing EDD] grades of steel involves a consistent adeptness and knowledge. It calls for a technology of the highest order. Jindals are also the pioneers in India to use the newly introduced process of COREX C-2000module, developed by Voest Alpine, Austria to manufacture pig iron. These are just a few examples...Jindal breakthroughs are almost limitless. As limitless as its resolve to seek and overcome challenges on a continuous basis. It has become axiomatic to say: "Where there's challenge, there's Jindal" and "If it is Jindal, it must be first class".

**Jindal Vijayanagar Steel Limited**

In the 15th century, Krishnandevaraya [1509-29] ruled the royal Vijayanagar dynasty located in southern India, famous for its peace and prosperity. Reminiscing the past glory and grandeur of Vijaynagar,
jindal vijayanagar steel limited, the mega-integrated steel plant has come up at Toranagallu, 29 kms from Bellary. Speared over an area of 3675 acres, JVSL with an estimated production capacity of 1.60 million tones of steel per annum is one of the largest Greenfield and fully integrated steel plant investments in Southern India. JVSL would work on COREX technology brought in by Voest Alpine Industrieanlagenbau, Austria. The plant consist of a 3 MT pellet plant, two corex modules for producing 1.6 MT hot metal, two 120 ton BOF converters, ladle furnace, two single strand continuous slab casters and a third generation HSM.

Recognizing the need to preserve ecological balance, JVSL has adopted the environmental friendly corex technology of iron making. It has an easy access from the state capital of Karnataka- Bangalore, which is approximately 500 km from the site and has frequent bus and train services. Located in the Northern region of Karnataka on NH 63 towards Hospet, Toranagallu has a serene environment and placid ambience with some beautiful places for sightseeing within its vicinity. Some of these are, Donamalai Hill – A place of natural beauty. Tungabhadra Dam- one of India’s well known dams on the rivers Tunga and Bhadra. Hampi- A place of historical importance and the epitome of the Vijaynagar Dynasty.

Reason for choosing the location: This reason was justifiably chosen for the venture because of the availability of rich iron ore in the region, other raw materials required for various processes from the adjoining areas like Hospet, Bijapur, Sandur. Availability of water from Tungabhadra Dam. Catering to the markets in South India, raw material availability. Non-cocking coal from Australia, China, South Africa, Indonesia, and India. Limestone/ Dolomite from Bagalkot in Bijapur district and special grade limestone for BOF from Dubai,
Manganese ore from Sandur in Bellary – Hospet area. Quartzite from Belgaum/ Saundatti in Dharwad district. Iron Ore from Kumarswamy/ Thimmappanagudi deposit in Bellary – Hospet area, these reasons promoted the organization to come up in this region. The development of human resource has been given a top priority in this industry, with establishment of independent department of HRD, which is exclusively pertaining to the development of vast manpower which is over 5000. Employees competencies are build through extensive training and development programmes.

**Major Units of The Project**

**Raw Material Handling Plant (RMHP):** To handle and meet the demands of the raw materials required for various plants the RMHP has proper facilities available. Pelletisation Plant: the pellets of iron are manufactured here for use in corex.

COREX: An advancement of the traditional blast furnace, the COREX is brought to India in collaboration with Voest Alpine, Austria and is expected to provide JVSL a unique identity in the India as well as in Asian steel market.

Basic Oxygen Furnace (BOF): the furnace is meant to produce liquid steel from molten iron. Its technology is acquired through Mannesman Demag, Germany.

**Continuous casting plant:**( CCF) The molten steel is casted into slabs. CCFis also in collaboration with Mannesman, Germany.

**Hot Strip Mill (HSM):** The steel slabs are rolled into coils of desired size. The equipment is obtained from Danielli United, U.S.A., walking beam furnace from stein Heurtey, France and mill automation from Cegelec, U.S.A.
**Jindal Praxair oxygen company limited (JPOCL)** Oxygen plant: manufacturing Industrial grade Oxygen, Nitrogen, and Argon. It is a joint venture with Praxair, inv., U.S.A. and is the world's largest Oxygen manufacturing plant.

**Jindal Tractable Power Company Limited (JTPCL)** Power Plant: producing Thermal Power from COREX gas. It is a joint venture with Tractebel, Belgium having a capacity of 260 MW (2130).

**Indian Aluminum Company Limited, Belgaum (Indal)**

Indal was the first to set up aluminium manufacturing facilities in India, established in December 1938 as a private limited company by the name “Aluminium production company Limited.” In the year 1944, the name was changed to “Indian Aluminium Company Limited”. The company went public in 1945 since its inception Alcan Aluminum Limited, Canada, has been its, principal shareholder, which was holding 54.6% of the company’s equity. Today Indal is a member of the Aditya Birla group, which holds 74.6% equity in the company and a vertically integrated company. As India's second largest business house with group turnover of over Rs.200 billion. The Aditya Birla group is a Conglomerate of leading companies. As a member of Aditya Birla group. Indal gains synergistic advantage through Hindalco's strong metal base. All units of Indal are ISO 9002 certified. The company's bauxite mines and thermal power plant have received ISO 14001 Environment Management System Certification. Indal is a publicly owned, listed and professionally managed company with over 3000 employees and about 30,000 shareholders.

**Indal At Belgaum Works**

The INDAL plant at Belgaum as established 1968 and started operations on the 7th November 1970. It is situated about 12 kms,
from Belgaum City beside the National highway. It has a total area of 1200 acres; it has 1000 employees. The main product of this unit is Alumina powder. The Alumina plant has a capacity of 280,000 MT of Hydrate P.A. The special Alumina capacity is being expended from 25,000 MT to 50,000 MT P.A. The raw material Bauxite is brought from Durgamanwadi near Kolhapur. Today Indal, Belgaum is a member of the Aditya Birla group, one of the progressive industries of this region, it has 1000 employees, the responsibility of employee development is successfully shouldered by the human resource development department, with committed personnel both managerial and non managerial.

**Belgaum Region**

Belgaum district is one of the largest districts in Karnataka State with a population of over 3.5 million. The moderate and pleasant climate of Belgaum is a plus point compared to extreme climate experienced in most of the towns and cities in India. The weather is cool and dry throughout the year and is characterized by light winds.

Belgaum people are cosmopolitan in nature. Most of them know and speak more than one language. The forests around Belgaum are now endowed with teakwood plantations, which have been specially planted and grown. Belgaum also boasts of having 3 major rivers i.e., Krishna, Ghataprabha and Malaprabha, which has made the region extremely fertile and viable for irrigation. It is distinct to note that the first hydroelectric power generation in India was established in this region at Gokak falls in the year 1887. Two big dams namely Hidikal and Malaprabha supply water for drinking and irrigation purposes. Belgaum is also known for its variety of milk sweets.
Belgaum region also boasts of higher standards of education and good educational facilities. The region played a major role in the freedom movement. The womenfolk of the region are known for their physical and mental capability. They are known for their value in the past and famous woman martyr Rani Channamma of Kittur led a rebellion against the mighty British Empire way back in the year 1824.

The people in the region are also known from their indomitable bravery, courage and determination, as it was the most active region in the Bombay presidency during the Quit India Movement. Belgaum is called the “Hydraulics Capital of India”. A well-developed and competitive hydraulic industry in the small/medium scale sector thrives at Belgaum catering to the requirements of the entire country. Apart from, Belgaum is also famous for its hand-woven sarees called the Shahapuri saree and also for its rich cultural heritage.

Indal is a most innovative, diversified aluminium company in India. To achieve this, Indal will be a customer-oriented enterprise, committed to excellence and cost effectiveness in its chosen aluminum business, significant resources will be devoted to diversifying into hi-tech and market oriented business with superior growth and profit potential. Consistent with national goals, Indal will progressively increase exports. In the 1990's Indal will significantly improve the return on shareholder's equity.

**Falcon Tyres Limited, Mysore**

Falcon Tyres Limited was promoted by Mr. H.D. Shetty and a group of professionals in 1973 and it started commercial production in 1975. The company since then is engaged in the business of manufacturing of a wide range of quality automotive tyres and tubes for the two and three wheeler segment of the industry. It is located in the
Garden city situated at Metagalli industrial area of Karnataka Industrial Development Board, Mysore in 18 acres land area. Company was taken over by Chhabria Group in 1987. Mr. M.R. Chhabria, NRI Industrialist who is also holding Dunlop Tyre Limited, heads Chhabria Group. Falcon is now a subsidiary of Dunlop India but it operates as a separate entity accountable for its corporate affairs. Over a period of time it has emerges to be one of the largest tyre and tube-manufacturing establishment in India and South East Asia Region.

Falcon produces tyres and tubes (Butyl Type) for two and three wheelers vehicles and markets them to major automobile giants like Bajaj, Hero Honda, TVS Suzuki, Kinetic Honda etc. under the brand name of Dunlop. The production range for tubes includes Truck, Light Truck, Car (including Maruthi), Scooter, Motor Cycle, Mopeds, Animal driven vehicles etc. Falcon has acquired modern and sophisticated technology for producing quality tyres and tubes. After Chhabria group has taken over, the company has introduced lot of changes. It has imported high-speed machines from Korea, Taiwan, and United Kingdom etc. Technical assistance from the Sumitho Industries of Japan was taken productivity enhancement.

Company has expanded its manufacturing capacity at its Mysore unit at a cost of 12 crores. This expansion has been financed from internal accruals of the company and term loan expanding its manufacturing capacity from 2,40,000 tyres to 3,15,000 tyres.

Past few years have shown a shift in the consumer preference for scooter to motorcycles. The company with its intrinsic abilities has been quick to adjust to the shift and the changing market needs. Falcon tyre is the first company in India to supply high speed, high performance low aspect ratio bias tyres for the advance, high-powered
new generation motorcycle being introduced successfully in the Indian roads. Being the subsidiary of the Dunlop India Limited, the company has the able assistance of the Sumitomo Industries of Japan as well. Company is also exporting tyres to Bangladesh, Sri Lanka, Malaysia, and Latin America.

**Business and Corporate Vision of The Company**

Falcon tyres are the largest single supplier of two and three wheeler tyres to Original Equipment Manufactures (OEM) in the country. Falcon is on the threshold of massive expansion coupled with modernization. The company is going for related diversification and add in its tyre range car, light truck, tractor front, power tiller etc. Falcon has set its corporate vision to become a Rs.500 crore company in a short span. The basic belief and philosophy of the Personnel and Human Resource management is that the achievement of the company's objectives that the success of the company depends largely on the personnel that it has. It is therefore the company's belief that each employee has the right to expect from the Management a constructive attitude, full co-operation, confidence, fairness in treatment, opportunity for maximum participation and an organizational climate conducive for free, mutual trust and satisfactory working in the company in order that he can put in maximum effort and thus help the company to achieve best possible performance and growth to ultimately result in optimum profitability and prosperity of the organization and self-development and growth of the employee.

Falcon with its 671 manpower is on the threshold of massive expansion coupled with modernization, the personnel functions contributing to this mission by paying good attention to develop the human resource at work. The department is paying good attention to
Bharth Earth Mover Limited, Mysore

Bharth Earth Mover Limited is a premier ISO 9000 Company in India and the second largest manufacturer of earth moving equipments in Asia. It is a public sector undertaking under the administrative control of Ministry of defense. The company has come into existence in the year 1964. A Three-decade-old multi- location and multi- product company, BEML has vital applications in diverse sectors of economy such as coal, mining, steel, cement, power, irrigation, construction, road building, railway, and defense. BEML has registered an all-round growth be it in product development, Research and development, Marketing, Finance, Human Resource development. Their contribution to the core sectors of economy and the rational exchanges has been substantial. Human resource development has been attained a top priority in this organization. This function which is very immense part of the personnel department and endeavouring to build the competencies of the every individual employees to make them to be as competent to shoulder all the challenges and requirement of the manufacturing process.

BEML a public sector undertaking under the Ministry of Defense, it commands 70% market share in domestic earth mover industry. Nearly 40% of its equity has been diverted to financial institution and public. BEML has its corporate headquarters and central Marketing division in Bangalore.
Mission of the company is to achieve and retain a dominant position in earth moving and heavy construction industry by establishing high standards of quality, capability, and reliability. To pursue the state of the art and environment friendly technologies as well as to develop cost effective and value added products. To be competitive, responsive and continuously improve service so as to ensure total customer satisfaction. To grow into global company guided by a keen sense of vision and business ethics as well as to maximize forex earnings. To conserve resources to and eliminate waste through optimum utilization of men, money, machinery and materials.

Manufacturing Units: The Company’s manufacturing units are located at Kolar Gold Field, Bangalore and Mysore. These units incorporate hi-tech manufacturing facilities with sophisticated CNC machines and arc welding robot. Multimillion-rupee heavy equipment shop turns and critical structures for industry. The company owns a captive foundry at Tarikere in Chikmagalur district of Karnataka.

Product Range: The company is producing a wide range of sophisticated mining, earth mover and constructing equipment which includes Hydraulic Excavators, Bull dozers, off the high way Dump trucks, bottoms Dumpers, scrapers, Water sprinklers, Cranes, Motor Graders, Air craft towing tractors and Track laying equipments. A host of other products include Heavy Duty trucks, trailers and sophisticated transmission for constant vehicles for defense sector, integral mail coaches and overhead equipment inspection cars for railway and variety material handling equipments for irrigation power prevention and other industries. With its wide-ranging product mix, BEML has emerged as the country’s most powerful moving force in the core sectors of National Economy. A market leader with 70% of the share, BEML is constantly breaking new grounds in domestic and
international markets. Over 22,000 of BEML's mammoth equipments are working today in India and 18 other countries around the world. Collaborators: BEML has achieved high standards in product engineering and gained international competence with the flow of state of the art technologies from global partners like Bucyrus, Vest Alpine, IGM and Burma Labadie.

Total Quality: All manufacturing facilities in the company are covered under ISO 9000 certifications with a commitment to total quality and reliability. BEML is not only maintaining its leadership in earthmover industry within India, but also constantly breaking new grounds in overseas market. Vender's assessment and development is a key component of the company's strategy. BEML machines reach over 30 countries world wide, covering Asia, Middle East. BEML is an export house with star export status. It has expanded operations to include exports of engineering goods, defense item, commodities and undertaking of projects management and turnkey contracts.


**Hindustan Machine Tools Limited (MTB-I &II) Bangalore**

Hindustan Machine Tools limited formally registered on Feb 7th 1953 to manufacture 400 precision lathes every year is a multitech multiproduct company with the state of the art products. HMT 1 [1953
started with the manufacture of lathes and later it expanded to [HMT 2 1962] the manufacture of special and automatic machines. Now HMT II & I is the largest unit in Machine tool Business Group known as "mother unit" with a work force of 1456. It comprises of two factories a ball screw division and a foundry division.

ISO 9001 certification was accredited to HMT I &II an 20th Aug 1994 and approved by IRQS. HMT I&II as wide range of products comprising heavy duty method radical drills, automats wire cuts EDMS, Sophisticated precision machine structure high speed gear cutting and gear bobbing machine, CNC grinding machine as well as special purpose machine. A present by unit products 25 different types of machine tools. Out of these 15 products, have design have developed in house.

HMT I &II Machinetools backed by elaborate service facilities such as CAD station, quality control centre, material testing, inspection and calibration cell, a technical information and archives centre and a well equipped training centre. Training is given for specific job to the employees when required. HMT MT division as developed its own 52 ancillary units, which is located inside the HMT complex itself, they regularly supply the required components for the manufacture of machines.

HMT is one of the pioneer public sector industry in India, with total 900 employees HMT since from the very beginning has been paying a good attention to develop the entire human resources. Presently HRD department is the part of personnel department, and responding to the development of human resource of the organization.

Employees welfare and well-being has been at the heart of HMT's business since the beginning. This is exhibited by a spectrum of welfare
facilities available to the employees, such as well planed township subsidized canteen facilities and a transport systems, free medical facilities, hospitals, two secondary school, spots club with stadium, auditorium, shopping centers etc., with in the complex.

**Indian Telephone Industries, Bangalore**

ITI is India’s first PSU set up in 1948. Over the last five decades, it has grown into the country’s foremost and largest telecom company with state-of-the-art manufacturing facilities spread across seven locations, three in-house R&D centers, countrywide marketing and service outlets and skilled manpower of 5000 employees, with a turnover exceeding Rs.2,000 Crore annually. Set up after independence in 1948, as the first public sector unit, it was primarily to manufacture and supply telecommunication equipment to the Indian post and telegraph department, and other priority sectors of the economy. The regular production at Bangalore commenced in the year 1950-51. ITI has pioneered the development of telecom in India, having contributed to more than 70% of the existing network, which is the world’s ninth largest. With its focused technical expertise, targeted reach-out capabilities and networking excellence, ITI has a vertically integrated telecom equipment production set up. The growth of ITI has been rapid, both in the range of products and in the quantum of production. The recent years have witnessed in the establishment of new units in different parts of the country i.e., Naini, Rae Bareli, Srinagar, Palakkad, and Mankapur.

The company offers the entire range of telecom equipment covering the whole spectrum of Switching (large, medium and small switches, catering to urban and rural needs), Transmission (digital microwave, fiber optic and satcom products), Access products and
subscriber premises equipment. The products and services of ITI have established a track record for dependability in various priority sectors like telecom, defense, railways, power, oil, etc. Designed specially for the most rugged tropical applications, they have boost up the Indian rural economy and found ready acceptance in many developing countries.

Alive to the technological changes and advancements, ITI offers the latest telecom solutions and customized support to a variety of businesses by virtue of its strong in-house R&D, select collaborations and strategic alliances with global leaders. The company has a dedicated Network systems unit for carrying out installation and commissioning of equipment and for undertaking turkey jobs and providing value-added services. Besides various major projects in India, the company has successfully executed jobs overseas.

ITI is a self-sufficient company with adequate resources for conceptualizing, designing, implementing and backing up total telecom solution and providing integrated logistic support for its clients. The Company is consolidating its diversification into IT and IT-enabled services by employing its vast telecom expertise and infrastructure. As convergence markets open up enormous opportunities in new technology areas, ITI's potential is reflected in each of its current initiatives. Network, management systems, Billing and Mediation software, encryption and networking solutions for internet connectivity are some of the major activities of the company in this direction. The company is providing the integrated billing software and mediation systems. The company’s foray into IT business has already been rewarded with a share in the networking segment. ITI is executing the BSNL pilot project for introducing voice over internet protocol (VoIP) in six cities. New IT initiatives on in-house development of products
include info kiosks, computer telephony integration (CTI), IP-PABX (Internet Exchange) and e-commerce platform.

The company has taken rapid strides in providing global system for mobile communication GSM (Cellular Mobile Infrastructure) for BSNL and MTNL. The entire west zone of India (Maharashtra, Gujarat, Madhya Pradesh, Chattisgarh) would be equipped and networked by ITI for cellular mobile services to one million new subscribers. This is in addition to Bihar Circle, Kolkata, Coimbatore, Delhi and Mumbai, where ITI is in advanced stages of building the GSM network. ITI is also focusing on WLL (CDMA) for rural access to meet the VPT programme of the government as well as for urban. Both these technological would provide a platform for migration to internet access and are in line with BSNL's ambitious expansion programme.

Turnkey project management and total telecom/IT solutions have enriched the company's portfolio. The most significant of them are the state-of-the-art secure communication network for defense and the Civicon project based on secure satellite communication network for the ministry of home affairs. They have been won against stiff competition and their implementation is in progress. The company has been short-listed for execution of other major contracts for state government networks and corporate clients. The company is building up fully secure ATM-based networks, which demonstrates ITI's strength in Encryption and total solutions.

The company's role as a significant resource provider for building vital infrastructure is underscored by the fact that ITI continues to maintain its leadership by being the largest supplier of switching equipment as well as the SDH Fiber Optic Terminals to the country's telecom network. The major thrust being placed on speedier
implementation of new technologies and faster skill formation in new areas, as part of the total restructuring exercise, would lend ITI a keen competitive edge in the convergence market. Having repositioned itself as a total solutions provider in the emerging environment, the company is poised to play a major role in the telecom and IT scenario-anytime, anywhere.

ITI is one of the progressive public sector in India, it has total manpower of 5000 employees. HRD department, which is working independently, has been paying apt attention to the need of harnessing employees capacity to work for the progress and prosperity of the organization, with an attempt to keep employees as competent always.

**Mysore Paper Mills Ltd., Bhadravathi**

Krishnaraja Wodeyar laid the foundation stone to start the Mysore paper mills on 1st April 1937; remarkable advisors to the maharaja like Sri. M. Visweswaraiah and Sri. Mirza Ismail vision for the establishment of this factory in the 1936 itself. The Mysore paper mills limited which is located on the bank of river Bhadra at Bhadrvathi, was later converted as Joint stock company by the government of Karnataka. The government not only promoted the company but also subscribed 10% of its share capital and received the right to appoint and managing director out of it directors. The MPM started with a small capacity of 4000 MT of paper per annum with a share capital of Rs.25 lakhs. This is produced under the brand name of “BISON”.

Bhadrvathi is about 250 kms from Bangalore, the factory is situated at Bhadravathi, in Shimoga District, Karnataka State with registered/corporate office in Bangalore. The main objective of the company is Self Reliance, Growth and Progress. The site of the factory has excellent infrastructural facilities like well-connected roads for
movement of raw materials and finished products. Bangalore to Honnavar state highway is very near to the factory. It is also well connected by the rail transport. Railway stations both in Shimoga and Bhadravathi have been of best use to the factory. It has an abundant supply of water facility from the river Bhadra. The company has been obtaining its raw material requirement from the captive plantation from the government, Forest department and the private source. Company has 7500 acres of forest in the five locations like Bhadravathi, Shimoga, Sagar, Thirthahalli and Hosanagar. The products manufactured by the MPM Limited are newsprints, cultural paper (i.e. Writing, printing and packing paper. Special paper) Sugar and Molasses. Basically the company manufactures cultural paper, but it gradually turned to manufacture newsprint in the year 1981 with the approval of government of Karnataka. One machine is used for the manufacture of newsprint and three machines for the production of cultural paper. And packing paper. News print: Two types of newsprint are produced by the MPM Ltd., They are 1) White Newsprint. 2) Pink Newsprint. The newsprint manufactured by the MPM Ltd., are supplied only to the registered newspaper and only against specific orders. Equipping itself with excellent infrastructure facilities MPM imported know-how and financial aid from all over the world. It mobilized most of its resources within the national framework, including the acquisition of large forest resources through the government to produce necessary raw material for the manufacturing of paper.

MPM has sailed through its own planned Expansion Schemes such as, incorporation of MPM at a capacity of 4,000 MT Per annum in 1936. The Second expansion 8000MT p.a. taken place in 1952. Third expansion of 18000MT p.a.1965, optimization scheme 2400MT p.a. in 1972. A sugar mill, which is another concern of MPM, is situated
within the same premises of paper mill set up in the year 1983. Mpm with over more than 5000 workforces both in paper and in sugar mills making excellent strides for progress and development under the dynamic leadership of its corporate executives, and also the various eminent personnel who are functioning in the department of human resource development, are making an continuous development programme based upon the company vision to potentially develop its entire workforce at work.

**Visvesvaraya Iron and Steel Limited, Bhadravathi**

VISL, a unit of SAIL, is located at Bhadravathi, a small town, situated 260 kms northwest of Bangalore city in the state of Karnataka. The plant is situated on the bank of river Bhadra, covering an area of about 3.8 square kilometers and employs 3342. The steel town covers an area of 4.5 square kilometers.

The vision and foresight of late sir M.Visvesvaraya, the then Dewan of Mysore, resulted in the setting up of “Mysore Wood Distillation & Iron Works” in 1918. It became a limited company in 1962. As a tribute to its illustrious founder, the company was renamed as “Visvesvaraya Iron & steel limited” (VISL) on February 16, 1976. An Engineer-statesman par excellence, he perceived Bhadravati as an ideal location amidst the forests of Shimoga.

VISL today is one of the premier Alloy and Special Steel producers in the country and the only one, which has established successfully BF-BOF-VRF-VD route for special steels. VISL has installed ‘COMBI’ type Electro Magnetic Stirrer in continuous casting machine recently, to produce concast products of international quality standards.
Starting as a wood distillation plant in 1918, the Mysore iron works, commenced its pig iron production in a charcoal blast furnace in 1923 to produce 60 tonnes of pig iron per day. A pipe plant was installed in 1927 to make profitable use of the pig iron thus produced.

Mild steel production was started in 1936 and in the same year the name of the works was changed to Mysore iron & steel works. Production of Ferro-Alloys began in 1942 with the addition of two small furnaces and the production capacity was augmented subsequently in 1962. Mild steel production capacity was also expanded in 1962 with the addition of two LD converters, one Electric Arc Furnace and a Blooming and heavy section mill.

The plant was expanded further and diversified into the field of alloy and special steels production in 1965 with the addition of electric arc furnace, combined Bar and rod mill and central heat treatment shop. Subsequently a modern forge plant was established in 1977 to produce high alloy steels like high speed steel, tool steels, die block steel and valve steels etc. With this, the production capacity of alloy and special steels went up to 77,000 tonnes per year.

As a step to improve the quality and yield of steel, a vacuum degassing/vacuum oxygen decarburising unit for blooms and billets in 1985. VISL took over of by SAIL on August 1, 1989. The company had technical collaboration with the world renowned M's Bohlers of Austria for twelve long years. As a measure of further updating the technology, VISL utilized the services of M's voest alpine industrial services (VAIS), Austria, recently under an agreement between steel authority of India limited (SAIL) and VAIS.

The capacities of the plant has been increased to 1,25,000 tonnes of Liquid steel and 70,000 tonnes of pig iron with the addition of 530
Cu.M.Blast Furnace, which was built indigenously through in-house effort of SAIL. The first indigenous Blast Furnace was commissioned on 24-2-95. VISL with the help of World Bank and SAIL has installed pollution control equipment at steel making shop, Ferro silicon & lime calcinations plant. Further, the expansion of the plant is also envisaged during 9th and 10th five year plans. Modernization and Technology Upgradation.

VISL is a major producer of high-grade alloy and special steels for the strategic sectors. To sustain this status, short and long term modernization proposals are in various stages of consideration and implementation.

VISL is one of the few units in the world till recently producing hot metal through the Electric pig iron furnaces route. One of the main reasons for its adverse performance in the past was its inability to produce Hot metal economically through this route due to high power tariff and inadequate power availability. As a long-term strategy VISL installed Blast furnace to produce Hot metal of the right quality at a reasonable cost so as to take the full advantage of BF/BOF/LRF/VD route in the production of steel. VISL Product Range Includes:

Alloy And Special Steels: Tool Steel, Ball Bearing Steel, Die Steel, Free Cutting Steel, Stainless Steel, Construction Steel, Spring Steel.

Pig Iron: Both Basic grade and Foundry grade,

Other items:- Castings: Grey Iron Castings, Steel Castings, 
-Pig Iron Skull, Coke Breeze, Iron ore fines , Machined components like rolls, rollers, shafts, rings, Stamped items: Great bars, Beater arms, etc.VISL can undertake: Manufacture and commissioning of Rounds Straightening Machine, Clay Mill. Conversion of EAF’s into LRF’s and Fabrication assignments at its modern 3000Ts per annum capacity
Fabrication Shop. 2. Production of work rolls for cold rolling mills, Billet rolls, Charging Bars, Table rollers, Special forging for engineering shops.

Environment Safeguard: As part of modernization and to safeguard the environment, VISL, has undertaken necessary schemes to mitigate environmental pollution. This aspect is in-built in all new schemes that are being implemented.

Commitment To Quality: Quality has always been the hallmark of VISL products. Its commitment to quality is reflected in the quality policy, which aims at customer orientation, employee involvement and continuous improvement in quality to achieve customer satisfaction.

Considering the advantages of building quality into every operation instead of looking for the same only at the final stage of product, VISL adopted total quality process in April 1990 to be able to do the right thing right, the first time and all the time.

By then the industries world over, in particular the EC countries and also many in India, were working on installation of an internationally recognized quality assurance system conforming to ISO-9000 series of standards which would help in delivering products of consistent quality to the customers. Adopted by international organization for standardization (ISO) in 1987, these system standards aim at ensuring the goods produced and services rendered by an organization that are right, the first time and all the time.

ISO-9000 standards are complementary to TQP. Implemented together on a continuous, basis they can lead to the ultimate goal of zero defect.
In order to keep pace with others in this international quality movement, VISL has obtained certification to ISO 9002 standard for production of Alloy and special through forged route in 1995 and for Rolled route & Pig iron in 1997.

VISL with a total manpower of 3342 is intended to do lot more better in future, alongwith continuous development of its human resource. Ever sine when VISL gone into the purview of SAIL, which one of the largest public sector in India Human Resources Development [HRD] is being given proper thrust at VISL Through need-based training, retraining and also by befitting human resource to the fulfillment of future strategies.