Chapter One

INTRODUCTION
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"Over 600 million people, or approximately 10 per cent of the world's population, have a disability of one form or another. Over two thirds of them live in developing countries. Only 2 per cent of disabled children in the developing world receive any education or rehabilitation. The link between disability and poverty and social exclusion is direct and strong throughout the world"

- Human Rights and Disability (United Nations)

1.1 HISTORICAL PERSPECTIVE ON DISABILITY

Disability is a persistent problem since dawn of civilization. Over a period of time, the nature and magnitude of the problem has changed. The person with disabilities has to struggle with physical handicap along with psychological, social, educational and vocational handicaps, which have their roots in the traditional attitudes of society. Ever since the dawn of civilization, human society is faced with the problem of handicapped. The treatment meted out to them has varied from age to age, civilization to civilization and culture to culture (Kothari Gopa 1985). Handicapped suffer not only from physical deformity and sense of inferiority, but they face consistently the agony of impairment and very often, cruel treatment by their own people (Reddy Prafulla 2000). In ancient times, where birth of child in any family was considered as gift of god, if some one is born disabled, it was considered as punishment by god for his wrong karma in last birth. Any person disabled by birth, accident or diseases was condemned to physical extinction. Physically handicapped instilled fear, suspicious and superstitious awe in the non-disabled members of his community who regarded them as an incarnation of the devil. For centuries, the belief persisted that the decrepit and the maimed were in some way connected beings-monstrous creatures of an unknown infernal region-and that they were to be dreaded and avoided by normal
human beings. The consensus on the issue of disability was also observed and problem duly addressed in the past. The psychology of the disabled people and the methods of tackling them were discussed in Kautilya's *Arthashastra* written in the fourth century B.C., which mentioned that, there were modified laws to protect the handicapped. Ancient Hindu religion emphasized that by helping poor and disabled, one would attain heavenly bliss. The golden age of the Guptas was considered unique in the treatment of the handicapped, because workshops were established for vocational rehabilitation of the physically and socially handicapped during this period. Muslim rulers provided food, shelter, and clothing for the handicapped as a mark of charity. Later in the history, there was some change in this attitude, but still the disabled were regarded as sub-species of the human race, mere object of pity and charity and were abandoned to beggary and ridicule. Accordingly, the focus of public policy also changed from providing elementary care to facilities like education, and rehabilitation both physical as well as vocational.

### 1.2 PRESENT SITUATION

These social attitudes softened and public awareness emerged during the post war period. But still, the traditional age old superstitions cast their shadow upon the approach to the problem of disability in modern society, especially in underdeveloped countries like India. Despite the tremendous progress achieved in other areas, it is an unfortunate fact that only small sections of disabled population in its major urban and rural areas are able to secure any consistent services (Narsimhan M.C. & Mukharjee A.K. 1986). Increased awareness and efforts of large number of governmental and non-governmental organizations have resulted in change in the attitude of the society towards persons with disabilities. Disability is no longer viewed as merely the result of impairment. The social model of disability has increased awareness that environmental barriers to participate are major cause of disability (WHO, ILO & UNESCO 2004). Even then, society is not barrier free for persons with disabilities. People with disabilities face many barriers every day from physical obstacles in use of buildings to systematic barriers in employment and civic programmes. Yet, often, the most difficult barrier to
overcome are attitude, the other people carry, regarding the people with disabilities. Whether originating from ignorance, fear, misunderstanding, or hate, these attitudes keep people from appreciating and experiencing the full potential a person with disabilities can achieve. There is a close association between disability and socio-economic levels such as poverty, lack of education and job opportunities, working conditions, geographical isolation, social prejudices and religious factors (Varma S.K. & Singh U 1985). The result of this association is experienced by persons with disabilities all over the world. Most of the disabled people in South Asian countries are poor and are subject to oppressive discriminatory practices, myths and taboos fostered by the ignorance of the people over centuries. They suffer from malnutrition, lack of healthcare, education, training and employment opportunities (Maqbool Salma 1988). Social exclusion of disabled is rule rather than exception in both developed as well as developing countries. In both the industrialized and the developing countries, the handicapped find themselves under sentence of exclusion from society (Gokhale S.D. 1984).

It is not possible to completely solve the problem of disability for any society. As disability can be prevented and controlled to some extent but cannot be totally eradicated. The expectations of disabled people in India, like in other progressive countries of the world, are rising and instead of pity and charity they deserve and expect their civil rights. They are not second class citizens and cannot be treated as such (Bacquer Ali & Sharma Anjali 2006). The analysis of the causes of disability reflects that, apart from congenital factors which also may be prevented through genetic and ante-natal counseling, communicable and non-communicable diseases obviously contribute to functional and social limitations. (Thangavelu M 1981). Many disabilities could be prevented through measures taken against malnutrition, environmental pollution, poor hygiene, inadequate prenatal and postnatal care, water born diseases and accidents of all types (U.N. 1982)

1.3 DISABILITY MODELS:
Different people conceptualize the phenomenon of disability differently. Accordingly each person will have different meaning for the term disability and
rehabilitation strategy to be followed. Conceptions regarding disability have undergone changes from time to time, from place to place, and from person to person. The meaning of disability for a doctor is different from that of psychologists, economists, and social workers. Accordingly, we have different models of disability evolving from disability movement worldwide.

1.3.1. Moral Model
The oldest model of disability is moral model. Under this model person with disability were seen as sin. Disability was considered as punishment from God for the wrong Karma done in the past. Thus persons with disabilities were treated as alien. As per this model, they have no right to live in the mainstream society. They are not entitled for any right to education, social life and employment available to other members of the society. They themselves are responsible for what they are. The family with disabled member was seen with suspicious. To avoid this disabled member were generally hided by their family. Neither government nor society was concerned with the problems faced by them.

1.3.2. Charity Model
Charity model is driven largely by the emotive appeals of charity. This model treats people with disabilities as helpless victims needing care and protection. This model relies heavily on the charity and benevolence rather than justice and equality. This model accepts the act of exclusion of persons with disabilities from social arrangements and services in public domain. Charity model justifies the exclusion of persons with disabilities from the mainstream education and employment. Entitlement rights are substituted by relief measures creating an army of powerless individuals, without any control or bargaining power, depending either on the state allocated fund or benevolent individuals. This model asks for social support mechanism for the benefit of person with disability. Initial efforts of the government and individuals were based on this model. Government was allocating large chunk of fund for the welfare of persons with disabilities as direct benefit or support to voluntary organizations. At the same time, army of non-governmental organizations
working for the benefit of persons with disabilities also relies on the donations and government grants.

1.3.3. Medical Model

Medical model of disability is based on the postulate that the problems and difficulties experienced by person with disabilities are directly related to their physical, sensory or intellectual impairments. This model defines disability in the clinical framework as 'disease' state, providing for major role for the medical and paramedical professionals to cure these problems in such a way as to make them as normal as possible. Medical model supports the postulate that persons with disabilities are biologically and psychologically inferior to other able bodied counterparts. So they are not treated as fully human because they lack the competence to decide for themselves. This model reduces disability to impairment and sought to locate it within the body or mind of the individual while the power to define, control and treat disabled individual was located within the medical and paramedical professionals. This model restricts the rehabilitation efforts to medical treatment in terms of protection and cure.

1.3.4. Social Model

In contrast to medical model, which locates disability within the person with disabilities, social model postulates that person is disabled because of architectural, attitudinal and social barriers created by the society. The social model presents disability as a consequence of oppression, prejudice and discrimination by the society against disabled people. It is the society, which constructs economic, social, health, architectural, legal, and cultural and other barriers in order to deliberately prevent people with impairments, enjoying full benefits of social life. The social model shifts the emphasis from a disabled individual to the society and its disabling attitudes and environment. People who believe on social model are of the view that handicap is made and not acquired. So the solution lies in social management by all necessary environmental modification.
1.3.5. Human Rights Model
Over the past two decades, dramatic shift in the perspective has taken place from an approach motivated by charity towards persons with disabilities to one based on rights. Disability is positioned as an important dimension of human culture by human rights model. According to human rights model all human beings irrespective of their disabilities have certain rights, which are unchallengeable. By emphasizing that the disabled are equally entitled to rights as others, this model builds upon the spirit of the Universal Declaration of Human Rights, 1948, according to which, ‘all human beings are born free and equal in rights and dignity’. This model puts emphasis on viewing persons with disabilities as subjects and not as objects thus locating the problem outside the disabled persons and addresses the manners in which the economic and social processes accommodate the differences of disability or not, as the case may be.

1.3.6. Economic Model
The economic model tries to establish the linkages between the individual and society in term of their contribution to productive capabilities of the society. The emphasis here is on health related limitations on the quantum and kind of work performed by person with disabilities. This approach suggests that the employment problems of person with disabilities stem from faulty economic system and deficiencies on the part of such disadvantaged individuals. The vocational rehabilitation programmes or income generation programmes are principal solutions to the problems faced by persons with disabilities. Existing policies play a greater role in condemning the disabled men and women to a life of perpetual dependency thus providing low paid work and limited opportunities for all round development. Unlike other models, economic model suggests that the modifications in the persons in the form of education, training and employability, rather than changing the environment and worksite changes or changes in the perception of employees is the most desirable means of fulfilling the social and economic needs of the disadvantaged strata of the society.
1.4 Defining Disability:

Defining disability is really a difficult task because there are large number of definitions given by different agencies, organizations and people. Each of them has defined disability according to their perception and purpose. Definitions of disability varies from very narrow to very broad, from medical to social, from the cultural to local, from one intended to integrate them in society to the one intended for their exclusion and segregation. People are labeled as disabled or handicapped because they look different from the rest of the society on account of their appearance, behaviour or capacity to learn (Baquer Ali Sharma Anjali 2006). A medical definition of disability is what most people have in mind when they think of a disability. Because it focuses on what is physically wrong with a person, it is easy to look for certain symptoms and see what steps are needed to compensate for them. Focusing solely on the medical aspects of disability requires medical treatment and living with disability is a lifelong quest for such treatment or a cure because medical definition ignores the person and places focus solely on a perceived physical or mental flow. This encourages society to emphasize disability prevention while at the same time rehabilitating those who are beyond the help of modern medicine. Instead of recognizing the unique contributions that people with disabilities make to society, society regards them as if they are criminals who need to be rehabilitated. A common view is that having disability makes an individual less capable of performing a variety of activities. It is difficult to conceive of a rigid and precise definition acceptable to all those providers, who in order to ration the supply of their limited services in the face of immense demand, prefer to use definitions which exclude even genuine people with disabilities. On the other hand, it is equally difficult to accommodate the expectations of those who use a flexible definition to include even those at the borderline. There are hundreds of different disabilities and there are as many causes of these. Some people are born with disabilities; others become disabled later on in their lives. Some disabilities exhibit themselves only periodically like fits and seizures; others are constant conditions and are life-long. The severity of some stays the same. Others get progressively worse like muscular dystrophy and cystic fibrosis. Some are hidden and not obvious like epilepsy or hemophilia.
(impairment of blood clotting mechanism). Some disabilities can be controlled and cured, while others still baffle the experts. Despite many attempts to define disability in general terms, the problem remains concerning what renders an individual disabled and who should belong to this group. But different definitions suggest the paradigm shift in the approach towards persons with disabilities. The old paradigm has presented disability as the result of deficit in an individual that prevented individual from performing certain functions or activities. The new paradigm recognizes the dynamic interaction between individual and environment over the life span that constitutes disability. Various legislations locate disability within the individual because of the time involved in changing a paradigm, lack of system of definition, classifying and measure the environmental components of disability and the absence of a model to describe and quantify the interaction of environment and individual variables. Thus, finding a consensus on the different and frequently varying definitions of disabilities, whether sophisticated or practical, has never been easy. While it may be argued that there could not be a universal blueprint of definitions, it is, however, necessary to have a fresh look at the definitions and include other categories such as disability due to epilepsy, learning disability, the definitions should be uniformly used throughout the country for the schemes of concessions/facilities provided for people with disabilities.

Different definitions of disability are categorized into three groups viz. definitions by international organizations, by other countries, and by individual authors, and definitions prevalent in India.

1.4.1 International definitions:
The World Health Organisations (WHO) differentiates between impairment, disability and handicap. Impairment is any loss or abnormality of psychological, physiological or anatomical structure of function. Disability is any restriction or lack of ability to perform an activity in the manner or within the range considered normal for human being. Handicap is a disadvantage for a given individual, resulting from an impairment or disability that limits or
prevents the fulfillment of a role that is normal, depending on age, sex and social and cultural factors, for that individual.

**International Labour Office (ILO)** defined disabled person as an individual whose prospects of securing, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognized physical or mental impairment.

According to **Standard rules on the Equalization of Opportunities for Persons with Disabilities, United Nations**, the term 'disability' summarizes a great number of different functional limitations occurring in any population in any country of the world. People may be disabled by physical, intellectual or sensory impairment, medical conditions or mental illness. The term 'handicap' means the loss or limitation of opportunities to take part in the life of the community on an equal level with others. It describes the encounter between the persons with a disability and the environment. The purpose of this term is to emphasize the focus on the shortcomings in the environment and in many organized activities in society, e.g., information, communication and education, which prevent persons with disabilities from participating on equal terms.

**Americans with Disabilities Act 1990 (ADA)** classifies an individual as disabled if his/her physical or mental impairment "substantially limits one or more of the major life activities".

As per **Disability Discrimination Act, 1992’ of Australia**, ‘disability’ in relation to a person, means - (i) total or partial loss of the person's bodily or mental functions; or (ii) total or partial loss of a part of the body; or (iii) the presence in the body of organisms capable of causing disease or illness; or (iv) the presence in the body of organisms causing disease or illness; or (v) the malfunction, malformation or disfigurement of a part of the person's body; or (vi) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction; or (vii) a disorder, illness or disease that affects a person's thought processes, perception of reality,
emotions or judgment or that results in disturbed behaviour and includes a
disability that: presently exists, or previously existed but no longer exists, or
may exist in the future, or is imputed to a person.

**Disability Discrimination Act, 1995 of the British Government** regards a
person as having disability if he has a physical or mental impairment, which
has a substantial and long-term adverse effect on his ability to carry out
normal day-to-day activities. In order to apply durability test, the British Act
uses three different terms: loss of faculty, disability and disablement. These
are meant to be separate concepts. Loss of faculty is any pathological
condition or any loss or reduction of normal physical or mental functions of an
organ or part of the body. A loss of faculty in itself may not be a disability but
is an actual cause of one or more disabilities, e.g., the loss of one kidney. A
‘disability’ means an inability to perform a normal bodily or mental process. It
could either be complete inability to do something (such as walking) or it can
be partial inability to do something (such as one can lift weights but not heavy
ones). Disablement It is the sum total of all the separate disabilities an
individual may suffer from. It means an overall inability to perform the normal
activities of life, the loss of health, strength and power to enjoy a normal life.
While assessing an individual his/her physical and mental condition,
inconvenience, genuine embarrassment or anxiety is taken into account.
(Russell Clemens 1998).

In **Germany** disabilities among young people or adults is defined as a
permanent functional impairment resulting from; an irregular physical, mental
or psychological conditions (Russell Clemens 1998)

In **Spain** the reference to disability refers to any person, whose opportunities
for participating in education, work or social activities are reduced as a result
of a physical, mental or sensory impairment, whether congenital or not, and
which is likely to be permanent (Russell Clemens 1998)

The term disabled person means any person unable to ensure by himself or
herself wholly or partly, the necessities of a normal individual and/or social
life, as a result of deficiency either congenital or not, in his or her physical or mental capabilities (U.N. 1975) (Resolution on the Declaration on the Rights of Disabled Persons)

According to (ILO 1983 Convention), disabled person means an individual whose prospects of securing; retaining and advancing in suitable employment are substantially reduced as a result of duly recognized physical or mental impairment.

The persons is handicapped when he or she is denied the opportunities generally available to the community that are necessary for the fundamental elements of living, including family life, education, employment, housing, financial and personal security, participation in social and political groups, religious activities, intimate and sexual relationships, access to public facilities, freedom of movement and the general style of daily living (U.N. 1982)

1.4.2 Definitions in India

According to the Rehabilitation Council of India Act 1992, handicapped means a person – (i) visually handicapped (ii) hearing handicapped (iii) suffering from locomotor disability (iv) suffering from mental retardation. Hearing handicap means impairment of 70 decibels and above in the better ear or total loss of hearing in both ears. Locomotor disability means a person’s in ability to execute distinctive activities associated with moving, both himself and object, from place to place, and such inability resulting from affliction of either bones, joints, muscles or nerves. Mental retardation means a condition of arrested or incomplete development of mind of person, which is specially characterized by sub-normality of intelligence. Visually handicapped means a person who suffers from any of the following conditions namely: - (i) total loss of sight (ii) visual acuity not exceeding 6/60 or 20/200(snellen) in the better eye with the correcting lenses; or (iii) limitations of the filed of vision subtending an angel of degree or worse.

According to the Persons with Disabilities (Equal opportunities, Protection of Rights and Full Participation) Act, 1995, persons with
disability means a person suffering from not less than 40 percent of any disability as certified by medical authority. Hearing impairment means loss of sixty decibels in better ear in the conversational range of frequencies. Leprosy cured means any person who has been cured of leprosy but is suffering from:- (i) loss of sensation in hands or feet as well as loss of sensation and paresis on manifest deformity, (ii) manifest deformity and paresis but having sufficient mobility in their hands and feet to enable them to engage in normal economic activity (ii) extreme physical deformity as well as advanced age which prevent him from undertaking any gainful occupation and the expression ‘leprosy cured’ shall be construed accordingly. Locomotor disability means disability of the bones, joints or muscles leading to substantial restrictions of the movement of the limbs or any of the cerebral palsy. Mental Illness means any mental disorder other than mental retardation. Mental retardation means conditions of arrested or incomplete development of mind of a person, which is specially characterised by sub normality of intelligence. Persons with low vision means person with impairment of visual functioning even after treatment or standard refractive correction but who uses or is potentially capable of using vision for the planning or execution of a task with appropriate assistive device. Blindness refers for a condition where a person suffers from any of the following conditions namely; - (i) total loss of sight (ii) visual acuity not exceeding 6/60 or 20/200 (snellen) in the better eye with the correcting lenses; or (iii) limitations of the field of vision subtending an angel of degree or worse.

According to the Planning Commission of India, a disabled person means any persons who is unable to ensure himself/herself wholly or partly, the necessitates of a normal individual or social life including work as a result of deficiency in his/her physical or mental capability. Persons with disabilities are classified in to five types. A person shall be deemed to be blind if he/she suffers from either of the following conditions- (i) total absence of sight (ii) limitation of the field of vision subtending an angle of 20 degree or worse. A person shall be deemed to be deaf if he/she has lost 60 decibels or ore in the better ear in the conversational range of frequencies. A person shall be deemed orthopedically or neurologically disabled if he/she is having disability
of bones or joints or muscles leading to substantial restrictions of the movement of the limb or if he has any form of cerebral palsy. A person shall be deemed to be orthopedically or neurologically disabled if he/she is having disability of bones, joints or muscles leading to substantial restriction of the movement of the limbs or if he has any form of Cerebral palsy. Mental retardation refers to sub-average general intellectual functioning, which originates during the development period.

According to \textit{Ministry of Welfare, Government India}, Visually handicapped are those who suffer from either of the following conditions: - (i) total absence of light (ii) visual acuity not exceeding 6/60 or 20/200 (snellen) in the better eye with correcting lenses (iii) limitation of the field of vision surrounding an angle of degree 20 or worse. The Locomotor handicapped are those who have restriction in the activity of arms, limbs or other parts of the body on account of damage to the bones, muscle, or nerves. Hearing handicapped are those in whom the sense of hearing is non-functional for ordinary purposes in life. They do not hear/understand sound at all even with amplified speech. The cases include in this category will be those having hearing loss of more than 70 decibels in the better ear or total loss of hearing in both ears. Mental retardation means sub-average general intellectual functioning associated with mal-adaptive behaviour, occurring in the developmental period. Mental retardation is divisible into four categories; - (i) Mild retardation IQ – 50 – 70 (ii) moderate retardation IQ – 35 – 49 (iii) severe retardation IQ 20 – 34 (iv) profound retardation IQ under 20.

\textit{Census of India} defines five types of disabilities viz. seeing, speech, hearing, movement, and mental. Seeing disability includes a person who cannot see at all (has no perception of light) or has blurred vision even with the help of spectacles will be treated as visually disabled. A person with proper vision only in one eye will also be treated as visually disabled. Where a person may have blurred vision and had no occasion to test whether her/his eyesight would improve by using spectacles. Such persons would be treated as visually disabled. Speech disabled means a person will be recorded as having speech disability, if she/he is dumb. Similarly persons whose speech is not
understood by a listener of normal comprehension and hearing, she/he will be considered to having speech disability. Persons who stammer but whose speech is comprehensible will not be classified as disabled by speech. Hearing disability includes a person who cannot hear at all (deaf), or can hear only loud sounds will be considered as having hearing disability. A person who is able to hear, using hearing aid will not be considered as disabled under this category. If a person cannot hear through one ear but her/his other ear is functioning normally, should be considered having hearing disability. A person, who lacks limbs or is unable to use the limbs normally, will be considered having movement disability. Absence of a part of a limb like a finger or a toe will not be considered as disability. However, absence of all the fingers or toes or a thumb will make a person disabled by movement. If any part of the body is deformed, the person will also be treated as disabled and covered under this category. A person, who cannot move herself/himself without the aid of another person or without the aid of stick, etc., will be treated as disabled. Similarly, a person would be treated as disabled in movement if she/he is unable to move or lift or pick up any small article placed near her/him. A person may not be able to move normally because of problems of joints like arthritis and has to invariable limp while moving, will also be considered to have movement disability. A person who lacks comprehension appropriate to her/his age will be considered as mentally disabled. This would not mean that if a person is not able to comprehend her/his studies appropriate to her/his age and is failing to qualify her/his examination is mentally disabled. Mentally retarded and insane persons would be treated as mentally disabled. A mentally disabled person may generally depend on her/his family members for performing daily routine.

According to NSSO (National Sample Survey Organisation), a person with disability or with restrictions or lack of abilities to perform an activity in the manner or the range considered normal for being was treated as having disability. It excluded illness/injury of recent origin (morbidity) resulting into temporary loss of ability to see, hear, speak, or move. Persons who had difficulty in understanding routine instructions, who could not carry out their activities like others of similar age or exhibited behaviour like talking to self,
laughing / crying, staring, violence, fear and suspicion without reason were considered as mentally disabled for the purpose of the survey. The "activities like others of similar age" included activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath, taking food, personal hygiene, etc.), home living (doing some household chores) and social skills.

By visual disability, it was meant, loss or lack of ability to execute tasks requiring adequate visual acuity. For the survey, visually disabled included (a) those who did not have any light perception - both eyes taken together and (b) those who had light perception but could not correctly count fingers of hand (with spectacles/contact lenses if he/she used spectacles/contact lenses) from a distance of 3 meters (or 10 feet) in good day light with both eyes open. Night blindness was not considered as visual disability. Hearing disability referred to persons' inability to hear properly. Hearing disability was judged taking into consideration the disability of the better ear. In other words, if one ear of a person was normal and the other ear had total hearing loss, then the person was judged as normal in hearing for the purpose of the survey. Hearing disability was judged without taking into consideration the use of hearing aids (i.e., the position for the person when hearing aid was not used).

Persons with hearing disability might be having different degrees of disability, such as profound, severe or moderate. A person was treated as having 'profound' hearing disability if he/she could not hear at all or could only hear loud sounds, such as, thunder or understands only gestures. A person was treated as having 'severe' hearing disability if he/she could hear only shouted words or could hear only if the speaker was sitting in the front. A person was treated as having 'moderate' hearing disability if his/her disability was neither profound nor severe. Such a person would usually ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conducting conversations. Speech disability referred to persons' inability to speak properly. Speech of a person was judged to be disordered if the person's speech was not understood by the listener. Persons with speech disability included those who could not speak, spoke only with limited words or those with loss of voice. It also included those whose speech was not understood due to defects in speech, such as stammering, nasal voice, hoarse voice and discordant voice and articulation...
defects, etc. Locomotor disabled is a person with - (a) loss or lack of normal ability to execute distinctive activities associated with the movement of self and objects from place to place and (b) physical deformities, other than those involving the hand or leg or both, regardless of whether the same caused loss or lack of normal movement of body – was considered as disabled with locomotor disability. Thus, persons having locomotor disability included those with (a) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her “normal ability to move self or objects” and (b) those with physical deformities in the body (other than limbs), such as, hunch back, deformed spine, etc. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs were also treated as disabled.

According to Gujarat Physically Handicapped Persons (Employment in Factories) Act 1982, blind means those who suffer from either of he following conditions (a) total absence of light (b) visual acuity not exceeding 6/60 or 20/200 snellen in the better eyes with correcting lenses (c) limitation of the field of vision subtending on angle of 20 degree or worse. Deaf means those in whom the sense of hearing is non-functional for ordinary purposes of life. They do not hear understand sounds at all events with amplified speech. The cases included in this category will be those having hearing loss more than 90 decibels in the better ear or total loss of hearing in both ears. Deaf and mute means those who are deaf or who being deaf are also mute. Orthopedically handicapped means those who have physical defects or deformity, which causes an inference with the normal functioning of bones, muscles joints.

1.4.3 Definitions by individual authors
A disabled person is the one who in his or her society is regarded or officially recognized as such, because of a difference in appearance and/or behaviour, in combination with a functional limitation or an activity restriction. (Helander 1992)
Disabled or physically handicapped or crippled suggest a state of negation or helplessness; something which fall short of the norm or standard viz. physical fitness. No human being possesses unqualified physical fitness. Every individual suffers from some physical limitations or the other; which renders him incapable of performing certain tasks (Bhatt Usha 1963)

Disabled are those, who due to deficiencies in movement, vision, hearing, or mental faculties are unable to offer their total participation in their individual and social functions (Natraj M 1981)

Disability becomes handicap when it interferes with one's ability to do what is expected at a particular time (Seetharam Mikkavilli 1981)

The greatest handicap that a disabled persons has to face is the complete lack of knowledge and information among the able bodied concerning the disabled, of their abilities to learn and train and to engage in economically useful occupations (Gokhale S.D. 1984)

The literal meaning of disabled is a person who falls short of ability. If we take purely this meaning that most of us may fall in this category. (Tyagi D 2000)

According to Hindu religion common belief prevails that God has created man after His own image. Does that mean that the spastics, physically deformed, achondroplastic, blind, deaf and dumb, Down’s children are made as he replica of few lesser God? (Dutta Deepali 2000)

A persons with disability means a persons who is unable to ensure by himself/herself wholly or partly, the necessities of a normal individual or social life including work, as a result of deficiency, whether congenital or not, in his/her physical or mental capabilities (Kharpo Anita 2000)

Any person who is unable to lead a normal life, due to physical and mental retardation, is considered to be a disabled person, which may be from birth. (Sengupta Keya 2000)
Disability is broadly understood as conditions of a state that incapacitates or makes a person incapable of performing activity both physical and mental in the manner or within the range considered normal for human beings. (Das P.K. 2000)

The concept of disability is thus, intrinsically inked up with various aspects of life viz. mental, economic, vocational, legal and bureaucratic. In addition, it has a psychological face (impact of disability upon individual person), a socio-psychological side (the value of disability as reflected in social behaviour) and the sociological dimension (role, status, normative framework and subculture). All these factors contribute to the total image of disability (Karna G.K. 2001)

The question of the definition of ‘person with disability’ and how persons with disabilities perceive themselves are knotty and complex. It is no accident that these questions are emerging as the same time that the status of persons with disabilities in society is changing dramatically (Kaplan Deborah 2006)

1.5 DISABILITY: AN ISSUE OF ESTIMATION

According to the estimates by World Health Organisations, more than 600 million persons are suffering with disability of one or the other type in the world. Majority of persons with disabilities are residing in underdeveloped countries. According to the estimates by United Nations, in underdeveloped countries more than 10 percent of total population suffers with disabilities. There seems to be common consensus about the magnitude of disability represented as 10 percent of world population (Ramalingaswami V 1981) (Natraj M 1981) (Tyagi D 2000) (Chaudhary Ravindra K 2000) (Karna M.N. 2000) (Rehabilitation International 1987) (ILO 2002) (Menon Sindhu 2001) (Gokhale S.D.) (Blsht D.B. 1985). It is estimated that about 450 million people—roughly 10% of the world’s population—suffer from some of physical sensory or mental handicap. The figure may be even higher—around 13%—according to a recent estimate by WHO. Still more serious is the fact that the problem seen in both quantitative and qualitative terms shows no sign of diminishing (Gokhale S.D 1984). If we include the persons affected by disability, including the family members, social workers, and rehabilitation
professionals, then proportion may be as high as 20 -25 percent of the world population. The United Nations Expert Group considering the economic and social implications of the disabled concluded that at least 25 percent of the population, including impaired persons themselves, is directly affected by the presence of impairment and its consequences (Meenakshi 1981). Persons with disabilities are not a marginal minority particularly if it is considered that one person’s disability does not affect his own situation, but also the situation of his family and even his community. The number of persons directly or indirectly concerned by the problem of disability is therefore considerable (ILO 2002)

Estimation of disabled in any country varies greatly, depending upon the criterion used to define disability. In addition, the characteristics of disabled population encompassed by different definitions are not well understood. The proportion of disabled in total population may increase due to factors such as decrease in the morbidity of communicable diseases, worsening food situation contributing to malnutrition, increasing industrialization and urbanization, traffic conditions, factory and agriculture accidents, and galloping population in the developing countries (Gokhale S.D. 1984). Within India, estimates of disabled differ between different agencies. Estimate and number of disabled vary a great deal depending on the definition, the source and methodology and the extent of use of scientific instruments in identifying and measuring the degree of disability (Bacquer Ali & Sharma Anjali 2006). NCPEDP estimates that approximately 65 to 70 million people or 6 percent of India’s population is affected by disability (quoted in John J 2001) where as the report of the ministry of social justice and empowerment figure 43.99 million disabled in India (quoted in John J 2001) Large scale population data on the incidence of physical disability have been collected either in the census of India or through the NSSO surveys. Census of India 2001 with headcount estimated number of disabled to be 2.1 percent of total population. In the next year National Sample Survey Organization in its 58th round estimated, number of disabled to be 1.8 percent of total population. The estimates of number of disabled persons in India vary a great deal because of non-availability of census information as well as due to varying definitions, sources of data, the
methodology used for data collection and the extent of use of scientific instruments in identifying and measuring the degree of disability (Zusthi Bhupinder 2004). The magnitude and dimensions of disability in India is given in third chapter.

1.6 REHABILITATION OF PERSONS WITH DISABILITIES:
Rehabilitation of such a large majority of persons with disabilities are really an important objective not only from social point of view but also from economic perspective as depicted in economic model above. The goal of rehabilitation is to fit the young disabled person into suitable job, so that he/she will be productively and socially useful citizen. This restores his/her self-respect, self-esteem and social acceptability with all its attendant, psychological satisfaction and sense of self-fulfillment. (Natrajan M 1981). In absence of such strategies, their impairment and functional limitation will be converted into disabling situation for them. Such a situation will have consequences for the individual disabled, their families and also for the society as a whole (Figure 1.1). Individual consequences will be decrease in independence, mobility, leisure activities, social integrations, economic viability etc. Consequences for the family will be need for care, disturbed social relationships, economic burden etc. Society, as a whole, is also affected by way of greater demand for care, loss of productivity, disturbed social integrations etc. The economic potentials of person with disabilities can be enhanced and utilized by reducing the negative effects of their disabilities by providing them relevant aids and appliances, education, vocational training and suitable employment opportunities. With proper education and training majority of persons with disabilities can be enabled to live their lives as self-reliant citizens and join the mainstream of social life. The rehabilitation approach adopted so far in the country isolated the disabled and goes for special institutions, special classes for children and special places to work (Kama M.N. 2000). Stating the importance of rehabilitation ILO also stated that rehabilitation of disabled is essential in order that they be restored to the possible physical, mental, social, vocational and economic usefulness of which they are capable (ILO 1955) (Recommendations).
As disability is multi-functional problem, the concept of rehabilitation generally includes medical, social, psychological, educational, occupational, or economic measures aimed at securing for the individual the highest possible level of functional ability. Rehabilitation efforts should not be restricted to interventions aimed at the individual alone. Rehabilitation is not only a process of adjusting to the environment but also one of changing the environment to meet the needs of the people with certain restricted abilities (Narsimhan M.C. & Mukherjee A K. 1986). Rehabilitation is goal oriented and time limited process aimed at enabling an impaired person to reach an optimum mental, physical and/or social functional level, thus providing her or him with the tools to change her or his own life. It can involve measures intended to compensate for a loss of function or functional limitations and other measures intended to facilitate social adjustment or readjustment (U.N. 1982)

Rehabilitation embodies the democratic and humanitarian ideal that each individual is important and each member of the community should contribute to society to the fullest extent. A person’s handicap may result from any type of disablement (i.e. birth defects, sickness and diseases, industrial and road accidents or the stresses of war, work and daily life). People are likewise handicapped by cultural disadvantages (i.e. social, financial, or educational). Whenever any of these conditions cause difficulties in life adjustment the person is handicapped. Rehabilitation enables the person with handicap to attain usefulness and satisfaction in life. Rehabilitation programmes are concerned with helping disabled person as a human being who requires specialized help to enable him to realize his physical, social, emotional and vocational potentials. It presupposes the full development and utilization of the individual and its goals. In fact, it concerns itself with the residual abilities and utilizes them in such a way as to offset the effect of the disabilities to the maximum extent possible. The objective of long range planning for rehabilitation is to achieve maximum adjustment of the maximum number of disabled persons in maximum walk of life, when the formal rehabilitation process is completed through good teamwork between the medical, surgical, psychological, social, educational and vocational personnel. (Kothari Gopa
1985) Proper rehabilitation strategies will help the disabled individual, family of persons with disabilities as well as society at large (Figure 1.2).

Fig 1.1

The Disability Process

CAUSATIVE FACTORS

Disease
Environment

Attitudes
Social Demands

IMPAIRMENT

FUNCTIONAL LIMITATION

DISBAILITY

INDIVIDUAL CONSEQUENCES
Decrease of:
Independence
Mobility
Leisure Activities
Social Integration
Economic viability etc.

FAMILY CONSEQUENCES
Need for care
Disturbed social relationships

SOCIETY CONSEQUENCES
Demand for care
Loss of productivity
Disturbed Social

Source: Disability Prevention and Rehabilitation, 29th World Assembly, WHO April, 1979
Fig 1.2

Social Benefits of Rehabilitation

REHABILITATION
Greater self-care ability
Improved mobility and more positive attitude to residual disabilities

More social support for disabled peoples

Increased community participations
Increased psychological well being
Improved relationship with spouse and other relations
Improved domestic life, better care for other family members
Reduced professional workload, release of resources to other areas

Increased family income and community participation
Increased family stability, reduction of pressure on children

Generate public understanding of, and sympathy for disabled people

Less social stress, future economic and social gains via improved mental and physical health of following generations

Source: Proceedings of a Seminar on Rehabilitation of the Disabled held at the University of Strathclyde, Glasgow in August 1978
1.7 REHABILITATION: INDIAN PERSPECTIVE

The development of rehabilitation services for the persons with disabilities in India is a post-independence phenomenon. Rehabilitation activities undertaken by the government, and non-government organizations usually includes activities related to early detection, diagnosis and intervention, medical care and treatment, social, psychological and other types of counselling and assistance, training in self care activities including mobility, communication and daily living skills, provision of technical and mobility aids and other devices, specialized education services, vocational rehabilitation service, vocational training, and placement depending upon the nature of disability and individual capabilities. Government has enacted various acts, laws, and policies for the benefit of physically challenged. Government policies for physically challenged includes scholarships, support in higher education, admission reservation, financial support for instruments, travelling benefits, job reservations, relaxations in income tax, professional tax, and sales tax, training facilities, special employment exchanges, are some of them. At the same time adequate legal provisions are also available to safeguard the interest of persons with disabilities and their proper rehabilitation. Major legal provisions related to persons with disabilities in India are (1) The Mental Health Act, (2) Rehabilitation Council of India Act, (3) The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, and (4) The National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act. Apart from this Gujarat government has enacted Gujarat Physically Handicapped Persons (Employment in Factories) Act 1982.

1.8 RATIONALE FOR THE STUDY:

According to estimates by United Nations, over 600 million people, or approximately 10 per cent of the world’s population, have a disability of one form or another. Over two thirds of them live in developing countries. Only 2 per cent of disabled children in the developing world receive any education or rehabilitation. The link between disability, poverty and social exclusion is direct and strong throughout the world. The United Nations Expert Group considering the economic and social implications of the disabled concluded
that at least 25 percent of the population, including impaired persons themselves, is directly affected by the presence of impairment and its consequences. If we accept this estimate, populations with disabilities in India may be estimated at around 10 crore, including the persons affected by disability, viz. the family members, social workers, and rehabilitation professionals, figure may be as high as 20 to 25 crore. Rehabilitation of such large majority of persons with disabilities is really necessary not only from social point of view but also from economic perspectives. The goal of rehabilitation is to fit the young disabled person into suitable job, so that he will be productively and socially useful citizen. This restores their self-respect, self-esteem and social acceptability with all its attendant, psychological satisfaction and sense of self-fulfillment. In absence of such strategies, their impairment and functional limitation will be converted in to disabling situation for them. Such a situation will have adverse consequences for the individual disabled, their families and also for the society as a whole. Individual consequences will be decrease in independence, mobility, leisure activities, social integrations, economic viability etc. Consequences for the family will be need for care, disturbed social relationships, economic burden etc. Society as a whole is also affected by way of greater demand for care, loss of productivity, disturbed social integrations etc. The economic potentials of person with disabilities can be enhanced and utilized by reducing the negative effects of their disabilities by providing them relevant aids and appliances, education, vocational training and suitable employment opportunities. With proper education and training, majority of persons with disabilities can be enabled to live their lives as self-reliant citizens and join the mainstream of social life.

Prior to independence, voluntary agencies were largely dependent on small contributions from philanthropists rather than from government or large industrial houses. The trend has changed recently and voluntary organizations established in the recent past are mainly dependent on grants from government and industrial establishments. Concessions granted by the government to industrial houses contributing funds for such welfare are greatly instrumental in the flow of funds to the voluntary sector. In addition,
certain private foreign funding agencies provide financial and material support for voluntary action in the country. The disabled population of India today stands on the threshold of a widespread movement intending to fulfill their hopes and aspirations. The development of rehabilitation services for the handicapped in the country is a post-independence phenomenon. Despite tremendous progress achieved in recent past, it is an unfortunate fact that only small sections of the disabled population in major urban and rural areas can derive benefits from these policies. Ever since independence, successive central and state governments have expressed concern regarding the needs of physically challenged. Rehabilitation services are growing but haphazardly without any conscious plan to reach the largest section of population. Essentially based on western models the relevance and efficacy of these measures in a developing country like India is questionable. Today, despite substantial growth of rehabilitation services in India, large sections of the handicapped have no employment. Both in governmental as well as voluntary sectors, existing services have been unevenly distributed. There is a dire need to examine the current policies and programmes and to reassess their suitability to socio-economic conditions of India.

1.9 METHODOLOGY:
Present study is based on economic model of disability and aims at highlighting various issues related to socio-economic conditions and rehabilitation problems of physically challenged. Particularly it aims at searching answers to following questions.

1) What is the socio-economic condition of physically challenged labour force in urban India?
2) What are the problems faced by physically challenged in vocational rehabilitation?
3) What is the level of education among physically challenged?
4) What is the level of training among physically challenged?
5) What kinds of labour force experience physically challenged have?
6) What are different barriers to employment faced by physically challenged?
7) What are the employment potentials for different types of physically challenged?
8) What type of extra facilities physically challenged require at work place?
9) What role government has played in vocational rehabilitation of physically challenged?
10) Whether non-governmental organizations working for persons with disabilities have significantly contributed to their vocational rehabilitation?

Present study uses both secondary as well as primary data. Secondary data is collected from various sources viz. National Sample Survey Organisation, The Census of India, various NGOs, United Nations, World Health Organizations, etc. Data on various schemes and laws relating to persons with disabilities are collected from various government departments and their websites. Data on international experiences are mainly collected from various international agencies through online sources mainly internet and e-mail. Information on various studies on the subject was collected from various libraries mainly, Gujarat University, M.S University, I.I.M., Mahatma Gandhi Labour Institute, V. V. Gin National Labour Institute, various Non Governmental Organisations etc.

Ahmedabad district of Gujarat state is selected for the purpose of study. In the first stage, four areas of Ahmedabad viz Satellite, Ranip, Naroda and Ghatlodia were randomly selected for study. Among various types of disabilities, persons with movement disabilities were chosen because they are among the largest majority within the categories of physically challenged and it is easy to communicate with persons with movement disabilities as compared to other disabilities. For each area list of persons with disabilities was collected from various sources including persons with disabilities, NGOs working for physically challenged, other voluntary agencies, etc. From list so prepared, the sample of respondents for enumeration was selected based on the population of these areas.
Structured questionnaire was designed in consultation with persons with disabilities, non-governmental organizations and academic experts. After pilot survey of 25 respondents, the questionnaire was modified according to the responses and opinion of the experts. Modified questionnaire was canvassed to a sample of 150 respondents. Focus group discussions were also conducted in each of selected areas to collect information which was not revealed in individual questionnaire. Primary data were analyzed with the help of SPSS. Various statistical techniques were used in data analysis.

1.10 CHAPTER SCHEME
The study is divided in to seven chapters. The summary of each chapter is present here.

Chapter One: First chapter is by way of introduction to the problem of disability and rehabilitation. It deals with the historical perspective of disability, present situation, disability models, definitions of disability by various agencies and authors, issues in the estimation of disability, magnitude of disability in India, issues in rehabilitation etc. Chapter also covers the rationale for the study, objectives of the study and methodology.

Chapter Two: Second chapter covers the literature on disability and rehabilitation. Various studies by international organizations, non-governmental organizations, academic experts, persons with disabilities, and legal provisions are summarized. Since study focuses on persons with movement disabilities and vocational rehabilitation, literature covered focuses more on them along with some literature on social and legal dimensions. Some international experiences are also documented in order to have better understanding of the concepts and rehabilitation strategies.

Chapter Three: Third chapter studies the empirical analysis of the problem of disability in India. Latest information on persons with disabilities available from 58th Round of National Sample Survey Organization, covering various dimensions of the problem of disability, is analyzed to have proper understanding of the magnitude of the problem of persons with locomotor
disabilities in India. According to the estimate by NSSO, 18.49 million persons are facing the problem of disability in India which constitutes 1.8 percent of population. Among different types of disabilities, the prevalence of movement disability is highest, affecting 1046 and 901 persons per 100000 persons in urban and rural areas respectively. Nearly 30 percent of persons with movement disabilities are affected by polio. The level of education and training is limited among persons with locomotor disabilities, limiting their employment opportunities.

Chapter Four: Fourth chapter covers the information about the study area i.e. Ahmedabad. It gives brief about socio-economic profile of study area. Information about persons with movement disabilities in Ahmedabad is collected from the Census of India 2001 and analyzed. According to the Census of India 34837 persons are suffering with the problem of movement disability in Ahmedabad out of which 62 percent are male and 34 percent are female. The classification of persons with locomotor disabilities by residence shows that 72 percent of them are located in urban areas, while 28 percent are located in rural areas. Chapter also covers some details about government and voluntary agencies working for persons with disabilities in Ahmedabad.

Chapter Five: Fifth chapter is devoted to analysis of personal, family, disability, educational, skills, and employment related characteristics of physically challenged labour force in urban Ahmedabad. Information about institutional framework and its impact is also covered. Among personal characteristics, sex, age and caste of the respondents are covered while family characteristics cover information on number of family members, number of earning members, family education and family income. Disability characteristics include types and reason of impairment, age at onset of disability, percentage of disability, disability certificate, and use of aids and appliances etc. Educational characteristics like years of education, place of education, reasons for leaving education, effect of disability on education etc are covered while training characteristics deal with the types of skill, place of training, appropriateness and usefulness of training. Major employment
characteristics of the respondents covered are employment status, nature of work, annual income, job satisfaction, plan to change the job and reasons thereof, reasons for selecting present work, efforts for getting job, and facilities available at work place. The use and benefit of services of employment exchanges is also discussed Institutional framework includes the awareness and use of schemes and benefits, expectations from the society, awareness and membership of NGOs, and motivational factors are discussed.

Chapter Six: Sixth chapter is devoted to vocational rehabilitation of physically challenged labour force in urban Ahmedabad. In the beginning, the concepts of rehabilitation and vocational rehabilitation are discussed. In order to quantify the level of vocational rehabilitation of physically challenged, vocational rehabilitation index comprising of education achievement, training achievement and employment achievement is constructed. The relationship between various family, personal, and disability characteristics and vocational rehabilitation are analyzed. The role of institutional framework in vocational rehabilitation of physically challenged is analyzed and the relationship between various dimensions of education, training and employment with vocational rehabilitation is also attempted.

Chapter Seven: Seventh chapter conclude the study with policy recommendations. Major recommendations emerged from the study include, special focus on vocational rehabilitation of physically challenged from poor strata of the society especially those from reserve categories, special schemes for the vocational rehabilitation of physically challenged female, and special focus on persons with high percentage of disability. In terms of institutional framework it is suggested that non governmental institutions should expand their service horizons to include maximum number of physically challenged. Government in association with non-governmental organizations should strive hard to increase awareness about schemes and benefits designed for the welfare of physically challenged. Special focus, both by government and non-governmental organizations, is required for higher education and training of physically challenged. Training should be provided in trades which are marketable and generate employment opportunities for
physically challenged. Special initiatives are required for increasing self-employment among physically challenged. Assistive services are needed at work place for physically challenged.

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