Chapter 2
Review of Literature

This chapter reviews the literature on the definitional and conceptual aspects and the inter-linkages of disability with education, employment and poverty. Though the association between poverty and disability appears obvious, it is more talked about than evidenced. While there are studies of developed countries to suggest such an association, in the context of developing economies like India, lack of data has been a stumbling block for any substantive research in this area. The chapter discusses definitional aspects, the causes, burden and costs of disability followed by delineation of various disability rehabilitation models. A major part of this chapter is devoted towards reviewing various studies on links of disability with education, employment and poverty including those undertaken in India.

2.1 Introduction
2.1.1 Disability, the Concept
Disability is defined by the World Health Organization (WHO) as any restriction or lack of ability (resulting from impairment) to perform an activity in the manner or within the range considered normal for a human being (WHO, 2004). International Labour Organisation (ILO) defines a 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. While the WHO definition highlights the functionality aspect, the ILO approach focuses on the employment perspective. The Americans with Disabilities Act (ADA) states ‘Disability means with respect to an individual (i) a physical or mental impairment that substantially limits one or more of the major life activities of such individual, (ii) a record of such an impairment, or (iii) being regarded as having such an impairment’(ADA, 1990).

There exists a difference between disability and handicap though ‘Disability’ and ‘Handicap’ are sometimes used interchangeably. Whereas ‘Disability’ refers to different functional limitations - physical, intellectual or sensory impairment,
medical conditions or mental illness, ‘Handicap’ means the loss or limitation of opportunities to take part on an equal level with others due to shortcomings in the environment such as information, communication and education. The International Classification of Functioning, Disability and Health (ICF) is a classification of health and health related domains that describe body functions and structures, activities and participation. The domains are classified from body, individual and societal perspectives. Since an individual's functioning and disability occurs in a context, ICF also includes a list of environmental factors (WHO, 1999).

There exists a fine difference between disability and impairment. Whereas impairment denotes the functional limitations affecting a person’s body, disability represents the loss or limitation of opportunities as a result of social, physical and attitudinal barriers (Table 2.1). Thus, an inability to walk, as described by Karna (1999) is an impairment, while an inability to get into a building due to the fact that the entrance is up a flight of steps can be taken as a disability. Disability, therefore, ‘refers to the oppression which a person with physical, sensory or intellectual impairment (or who is a mental health system survivor), experiences as a result of prejudiced attitude and discriminatory action’ (Karna, 1999). Impairment leads to social and economic disadvantages, denial of rights, and limited opportunities to play an equal part in the life of the community” (DFID, 2000).

Table 2.1: Impairment, Disability and Handicap

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Intrinsic situations: exteriorized as ‘functional limitations’</th>
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<tbody>
<tr>
<td>Disability</td>
<td>Objectified as ‘activity restriction’</td>
</tr>
<tr>
<td>Handicap</td>
<td>Socialized as ‘disadvantaged’</td>
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</table>


Disability, in many societies is regarded as taboo, a retribution for past sins committed, stigmatizing a child, cutting across economic boundaries. These
societal attitudes can be more disabling than the functional loss of a limb (Alur, 2003). However, handicap is consequent upon disability and the environmental factors including social, attitudinal or physical barriers. Lagerwall and Tiroler 1995 have aptly summerised this interaction between disability and society as depicted in Figure 2.1 (Alur, 2003).

**Figure 2.1: Disability and Society Inter-linkages**

The underlying socio-cultural context and understanding of disability is complex and multi faceted. The meaning of disability in any society needs to be negotiated as ‘embedded in multiple cultural discourses with subtle nuances’. On the one hand, there is the assumption that disability implies a lack or a flaw, leading to diminished capability while on the other, disability is associated with deceit, mischief and evil (Ghai, 2001). Another line of thought conceives disability as eternal childhood where survival is contingent upon constant care and protection. Here the emphasis is on images of dependency, thereby reinforcing the charity/pity model. This illustrates the underpinnings of a negative cultural identity. Historically, there are also narratives that indicate instances where disabled people were considered as children of God.
The process of disability is a dynamic one as it generally moves through three stages; i.e. pathology, impairment, and disability. The first stage, pathology, is the presence of a physical or mental condition, such as deafness, that interrupts the physical or mental process of the human body. This stage leads to the second stage, impairment, which Nagi defined as a physiological, anatomical, or mental loss or abnormality that limits a person's capacity to function; for example, deafness limits the ability to interpret sound. The final stage, disability, is the inability to perform or a limitation in performing roles and tasks that are socially expected (Burkhauser et.al, 2002).

Burkhauser, Daly and Houtenville hold that in USA, although the severity of the impairment explains much of the variance in work limitations, population with impairments is substantially understated by estimates that are based on the work-limitation question in the National Health Interview Survey (NHIS). The category of ‘work limitation’ refers to people who are ‘unable to work or to be limited in the kind or amount of work they do.’ They are of the view that a work limitation may be influenced by the work environment, rehabilitation opportunities, or the inner capacity of individuals to overcome both their impairments and the barriers to work (Burkhauser et.al, 2002).

The sociologist Irving Zola (1993) is critical of strictly classifying a person into a particular type and degree of disability as the ‘fixity’ of numbers is underscored by the inherent dynamism of status of disability that changes because of temporality of health status, the importance of context in manifesting a limitation, and the vagaries of conflicting classification systems. Zola argued Disability is not a ‘thing’ possessed by some persons and not by others but it is described rather as ‘a set of characteristics everyone shares to varying degrees and in varying forms and combinations (Fujjiura & Rutkowski, 2001).
2.1.2 Disability Adjusted Life Years (DALY)

We have observed that the definition of disability encompasses the limitations to the functionality of the disabled person, his/her quality of life and medical and societal condition. To study the perspective of loss of ‘lifetime’ and opportunities, a concept popularly called as Disability Adjusted Life Years (DALY), has come into being. It quantifies the disadvantage a disabled person faces because of likely premature mortality and the amount of time lived with disability. According to the World Health Organization, DALY for a disease are the sum of the years of life lost due to premature mortality (YLL) in the population and the years lost due to disability (YLD) for incident cases of the health condition. The DALY is a health gap measure that extends the concept of potential years of life lost due to premature death (PYLL) to include equivalent years of ‘healthy’ life lost in states of less than full health, broadly termed disability. One DALY represents the loss of one year of equivalent full health. It is stated by WHO in its document ‘as a health gap measure that extends the concept of potential years of life lost due to premature death (PYLL) to include equivalent years of ‘healthy’ life lost by virtue of being in states of poor health or disability’. DALY combines in one measure the time lived with disability and the time lost due to premature mortality. One disability adjusted life year can be thought of as one lost year of ‘healthy’ life and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability. Disability adjusted life year for a disease or health condition are calculated as the sum of the years of life lost due to premature mortality (YLL) in the population and the years lost due to disability (YLD) for incident cases of the health condition.

According to WHO, the years of life lost (YLL) basically correspond to the number of deaths multiplied by the standard life expectancy at the age at which death occurs. This method, though appears scientific, is not devoid of criticisms. It is argued that the principle on which DALY is based itself is silent about the treatment of people who are unlike along the dimensions that it uses to define likeness. This framework, through age weighting and discounting, values life
years lived by people of different ages and generations differently, though there is no reason why a life year lived by a young or old person should be valued less than that lived by a person in the middle age-groups, or why a life year lived by someone in the next generation should count for less than that by a person in this generation. It is also held that the DALY criterion implies that, all other things being equal, ‘for a given illness episode fewer resources should be allocated to a disabled person compared with an able-bodied one, or to a young or elderly person compared with one in the middle age-groups’ (Anand & Hanson, 1997).

It is argued that ‘the conceptual and technical basis for DALY is flawed, and its assumptions and value judgments are open to serious question. In particular, the implications of age weighting and discounting are found to be unacceptable. Moreover, the opponents of DALY do not distinguish between the exercises of measuring the burden of disease and of allocating resources. However, the appropriate information sets for the two exercises are quite different. Allocating resources by aggregate DALY minimization is shown to be inequitable (Anand and Hanson, 1997). Years lived with disability are translated into an equivalent time loss by using a set of weights which reflect reduction in functional capacity, with higher weights corresponding to a greater reduction. In both cases, time spent in the state is adjusted using a set of ‘value choices’ (Murray, 1994).

2.1.3 Disability and Poverty Cycle

Poverty and disability reinforce each other, contributing to increased vulnerability and exclusion. Majority of people with disabilities find that their situation affects their chances of going to school, working for a living, enjoying family life, and participating as equals in social life. The vicious cycle of linkages between poverty and disability has been represented diagrammatically by Lagerwall and Tiroler (1995) and Alur (2003) as follows:
Due to multiple deprivations faced by them, disabled persons, once poor, are likely to suffer from chronic poverty or long duration poverty. A cumulative lack of basic capabilities would make it extremely difficult for the poor to emerge from poverty by their own efforts (Hulme & Shephard, 2003). Chronic poverty seems to be disproportionately high among historically marginalized groups such as Scheduled Caste, Scheduled Tribes, the elderly, women and the disabled. The multiple deprivations suffered by them make it harder for them to escape from poverty (Mehta & Shah, 2003). Different forms of disadvantages tend to be mutually reinforcing so that people in groups ‘jammed’ by one log are likely to face others as well (Haan & Lipton, 1998). Poverty combined with disability trap a person in a downward spiral that pulls downwards economically, socially, psychologically and functionally.
Disability, and its Interlinkages with Education, Employment and Poverty in India

Poverty increases disability and at the same time disability increases poverty especially in poor families. People living in poverty are more likely to acquire a disability than others. A WHO paper holds that there are unique and strong linkages between poverty, illiteracy, poor health care, disability and exclusion which are well established. People with disabilities living in poverty often put aside their health and rehabilitation needs to sustain a livelihood. It results ultimately in long-term consequences such as loss of function and ill health resulting in chronic conditions and premature death. The most vulnerable are women and men with severe or multiple disabilities (World Health Organization, 2004).

Disability, and its inter-linkages with education, employment, and poverty, is a complex phenomenon. Disability has the potential to cause downward economic mobility. Poverty, in turn, carries along with it, a number of aggravating factors that may cause or progress disability. More importantly, such inter-linkages are not guided by economic factors alone. Disability reduces income generating opportunities due to low levels of educational attainment and employability issues. Also the cost of living increases due to disability on account of health factors. Besides, disability is likely to cause further social exclusion and discrimination, leading to multiple deprivation. Poverty causes poor health care/sanitation and malnutrition that are major causes of disability. ‘Disability has often been associated with poverty, but few studies examine the relationship empirically in developing countries. For example, a review of World Bank Poverty Assessments finds that while most countries acknowledge the issue, few have the data to investigate it’ (Braithwaite and Mont, 2009). The paper of Braithwaite and Mont sets forth a methodology for examining disability and poverty that is ‘in line both with a more functional approach to disability incorporated in the WHO’s International Classification of Functioning and Sen’s capabilities model’. Applying a specific methodology that allows for a consumption-based measure of poverty and a functional measure of disability to data from Bosnia and Vietnam, they conclude that ‘Disability and poverty are intricately linked as both a cause and consequence of each other and ignoring the
issue of disability significantly understates both poverty and the impact of Disability’ (Braithwaite and Mont, 2009). Disability and poverty have a complex and interdependent relationship (Trani and Loeb, 2012). Both poverty and disability reinforce each other in a vicious cycle as depicted in Figure 2.3 and 2.4.

**Figure 2.3: Impairment/Disability & Poverty Linkages**

Source: Rebecca Yeo, 2001
2.2 Definitions and Estimates of Disability

2.2.1 Legal Definition in the Indian Context
As per the Persons with Disabilities (Equal Opportunities Protection of Rights and Full Participation) Act, 1995, disability has been defined under seven broad-heads i.e. Blindness, Low vision, Leprosy – cured, Hearing impairment, Locomotor disability, Mental retardation and Mental illness. Definitions of the major categories of disability are as under:
'Blindness' refers to a condition where a person suffers from any of the following conditions, namely: total absence of sight; or visual acuity not exceeding 6/60 or 20/200 (snellen) in the better eye with correcting lenses; or limitation of the field of vision subtending an angle of 20 degree or worse. ‘Hearing impairment’ means loss of sixty decibels or more in the better ear in the conversational range of frequencies; ‘Locomotor disability’ means disability of the bones, joints or muscles leading to substantial restriction of the movement of the limbs or any form of cerebral palsy; ‘Mental retardation’ means a condition of arrested or incomplete development of mind of a person which is specially characterized by sub normality of intelligence (PWD, 1995).

The Persons with Disabilities Act recognizes a person with 40% or more degree of disability as disabled, for the purpose of applicability of the benefits flowing from the Act. A severely disabled person is defined as a person having disability of 80% or above. In June 2001, Government of India revised the guidelines for evaluation of disability and procedure for certification that were prescribed in 1986 in order to bring the same in consonance with the Disability Act, 1995.

2.2.2 Complexities and Estimates
Due to the complexities involved in this dynamic movement of disability and the way different authors and economics define it, there is an issue of comparability of disability statistics across countries. A 1995 ESCAP paper, notes that the estimated prevalence figure has been the subject of much debate because of differing definitions and the different survey methodologies. It concludes that global prevalence is probably lower than 10% estimate. The paper cites a 1992 UNDP estimate of moderately to extensively disabled people in developing countries of around five per cent of the population (Helander, 1992).

The extent of the difference in the estimates that is dependent on various factors including the source, definitions, sample etc. can be highlighted taking the most recent estimates of Census and NSSO, undertaken around the same time. Looking at the complexities and technicalities of the legal definitions, simple operational
definitions were adopted. Due to different definitions, estimates vary. The Census estimates the locomotor disabled at 106.34 lakh, the NSSO estimates such population at 61.05 lakh. The figures for the visually disabled is similarly startlingly different at 28.26 lakh (Census) and 106.35 lakh (NSSO) (Table 2.2).

Table 2.2: Estimates of Persons with Disabilities (in lakh)

<table>
<thead>
<tr>
<th>Disability</th>
<th>NSSO, 2002</th>
<th>Census, 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locomotor</td>
<td>106.34</td>
<td>61.05</td>
</tr>
<tr>
<td>Visual</td>
<td>28.26</td>
<td>106.35</td>
</tr>
<tr>
<td>Hearing</td>
<td>30.62</td>
<td>12.62</td>
</tr>
<tr>
<td>Speech</td>
<td>21.55</td>
<td>16.41</td>
</tr>
<tr>
<td>Mental</td>
<td>20.96</td>
<td>22.64</td>
</tr>
</tbody>
</table>

2.2.3 Definitions and Concepts of Poverty

‘Poverty has many dimensions and these include standard of living, assetlessness, lack of basic security, lack of entitlement, multiple deprivation, exclusion, inequality, class, dependency and unacceptable hardship’ (Gordon & Spickler 1999). Poverty can be transient, structural or chronic in nature. Poverty is also looked at differently by different experts. Broadly (i) poverty is seen as low income, and (ii) poverty is seen as the inability to meet some elementary and essential needs. Since human beings are ultimately concerned with the lives we can lead (and income is only instrumentally important in helping us to lead adequate lives), the case for taking the latter view of poverty is quite strong. Poverty according to Sen and Foster, can be defined in terms of capability deprivation (the connection with lowness of income is only instrumental) and there are influences on capability deprivation other than lowness of income (Sen and Foster, 1999). In the international scene, poverty index is not limited only to low income, but is related to human development. It contains the basic aspects as delineated in Table 2.3.
Disability, and its Interlinkages with Education, Employment and Poverty in India

Table 2.3: Poverty Index

<table>
<thead>
<tr>
<th>1) Health Deprivations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Life expectancy less than 40 years</td>
</tr>
<tr>
<td>(ii) Lack of access to basic medical services</td>
</tr>
<tr>
<td>(iii) Non-immunized children</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2) Educational Deprivations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(iv) Illiteracy rate</td>
</tr>
<tr>
<td>(v) Un-enrolled children</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3) Economic Deprivations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(vi) Below poverty line</td>
</tr>
<tr>
<td>(vii) Katcha dwelling</td>
</tr>
<tr>
<td>(viii) Lack of sanitation facilities</td>
</tr>
<tr>
<td>(ix) Lack of safe drinking water</td>
</tr>
<tr>
<td>(x) Lack of electricity connection</td>
</tr>
</tbody>
</table>


According to UNHCR, ‘poverty is a human condition characterized by the sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights. Poverty is not only an economic deprivation but has other deep-rooted causes and consequences-social, political and cultural’.

In the Indian context, poverty is estimated in terms of people below or above the poverty line as per the recommendations of the Expert Group on Estimation of Proportion and Number of Poor constituted by Planning Commission in 1989. This method captures the cost of living in each state through state-specific poverty line. Per capita monthly consumption expenditure of Rs. 49.09 in rural areas and Rs. 56.64 in urban areas, anchored in the per capita daily intake of 2400 K Cal in rural areas and 2100 K cal in urban areas with reference to the consumption pattern as obtained in 1973-1974 is adopted as the basis for defining poverty line (Datta and Sharma, 2002). In India, poverty is seen as an absolute concept indicating a minimum of provisions required to keep up health and working
capacity in order to survive and maintain physical fitness and efficiency. This method of estimating poverty ratio does analyze the depth and severity of poverty. As observed by Jalan, the estimates of the number of poor persons in India vary depending on the methodology used for estimation. However, even the most conservative estimates released by government agencies show that as many as 300 million Indians are below the poverty line (Jalan, 2005). Considering the additional personal costs and social costs to a person with disability, their socio-economic poverty and deprivational conditions are worse.

2.3 Major Causes, Burden, Costs and Benefits of Disability

2.3.1 Major Causes of Disability

Disability may exist from birth or may be acquired during a person’s lifetime. A certain degree of disability also comes as a natural process of aging called as geriatric conditions that can be delayed, but cannot be avoided. A number of factors can cause disability. These include heredity, birth defects, lack of care during pregnancy and childbirth due of lack of coverage or ignorance, insanitary housing, natural disasters, illiteracy and the resulting lack of information on available health services, poor sanitation and hygiene, congenital diseases, malnutrition, traffic accidents, work-related accidents and illnesses, sports accidents, the so-called diseases of ‘civilization’ (cardiovascular disease, mental and nervous disorders, the use of certain chemicals, change of diet and lifestyle, etc.), marriage between close relatives, accidents in the home, respiratory diseases, metabolic diseases (diabetes, kidney failure, etc.) drugs, alcohol, smoking, high blood pressure, old age, Chagas’ disease, poliomyelitis, measles, etc. Non-governmental sources also place particular emphasis on factors related to the environment, air and water pollution, scientific experiments, violence, wars, intentional physical mutilations carried out by the authorities and other attacks on the physical and mental integrity of persons, as well as violations of human rights and humanitarian law in general’ (Krishna, Dutt & Rao, 2001).

The most common causes of disability include chronic diseases such as diabetes, cardiovascular disease and cancers, injuries, violence; mental illness; malnutrition;
HIV/AIDS and other infectious diseases. The disabled population is growing in the world because of factors such as population growth, ageing and medical advances that preserve and prolong life. Lack of access to health services is a significant cause of disability. For example, an estimated 45 million people worldwide are blind and every year, an additional 1-2 million persons go blind though more than two-thirds of this blindness is treatable and preventable. It has been estimated that people with disabilities make up about 20% of the poor in developing countries (WHO, 2002).

2.3.2 Burden of Disability

2.3.2.1 Economic Cost

The additional real and monetary cost that has to be borne on a person with disability at every step of his life. These include the cost of assistive devices, their maintenance, implicit or explicit cost of attendants (part time or full time), cost of making the minimum environment (such as his own house) barrier free or disabled friendly, cost of medicines, transport cost and time spent in frequent visits to doctors and rehabilitation experts due to the complications of disability etc. There are additional costs to a person with disability, no matter how poor he/she may be.

The burden of care most often falls on family members, usually mothers or other female relatives. Caring for a child with a severe disability therefore further increases the workload of women living in extreme poverty, and takes valuable time away from the daily struggle to make a living (Miles, 1999). This is a major drain on his resources which is further aggravated in the absence of adequate coverage in terms of rehabilitation services, social security services and a barrier free environment. Sometimes, the need to travel from a remote rural area to a relatively urban area to access rehabilitation services for treatment may cause a substantial economic drain on family resources, thereby accentuating household poverty. Therefore, a disabled person who is as income poor as a non-disabled person in the context of the poverty line is, in a true sense, poorer than the person who doesn’t have any disability.
2.3.2.2 Social cost
Disability, in most of the developing societies, is considered as a social stigma. This leads to ‘social poverty’ in terms of exclusion, alienation, humiliation and marginalization. A person with disability is deprived from getting equal opportunities in the social sphere and is restrained from participating fully in the mainstream activities of the society. Negative bias exists despite social legislation. Disability thus constricts the overall development of the potential in the individual. It is argued that the family of a person with disability also suffers secondary emotional disturbance, stress, and other psycho-social problems and thus adversely affects their productivity. According to Erb and Harriss-White, the three components of cost of disability are: ‘(a) the direct cost of treatment, including the costs of travel and access; (b) the indirect costs to those who are not directly affected (‘carers’); and (c) the opportunity costs of income foregone from incapacity’(Erb and Harriss-White, 1999).

2.3.2.3 Cost to the Economy
Disability also poses social and economic cost to the society as a whole in terms of productivity forgone, welfare loss and heavy financial and administrative costs in providing social services. Services include rehabilitation services that are incurred by the government as well as non-governmental institutions. Besides, the national income and welfare is dampened in terms of the opportunity cost of the part / full time attendant who are productive, but engaged in looking after the disabled person. The existence of a health-limited working-age population is thus a drain on the productivity of the nation’s economy and a constraint on its growth.

Starting in the early 1970s, several studies have been conducted on the costs to the United States of ill health and disability. The earliest of these studies focused on the loss of actual earnings (or the value of lost household services), and estimated that the costs of health-related work limitations ranged from about 1.7 to 3.5 percent of GNP. A study by Haveman, Wolfe, Buron, and Hill (1995) has focused on the loss of earnings capabilities that are attributable to these health
limitations. While the earlier measures of the loss of actual earnings are dependent on individual preferences for work and leisure, the measure based on lost earnings capabilities is not (Haveman and Wolfe, 2000). In this measure, the effect of disability on both the wage earned and the hours per year worked are accounted for in determining how much of an individual’s potential earnings are lost because of the disabling condition. Using the definition of disability based on both self-reports of a work limitation and/or participation in a disability-related benefit program, Haveman and Barbara have estimated a loss of earnings capability of $131 billion in 1973 (5.3 per cent of aggregate earnings capabilities) and of $128 billion in 1988 (4.5 per cent of aggregate earnings capabilities. They find that across demographic groups, the loss of earning capabilities as a proportion of potential capability was greatest for female, non-whites, older workers, and those with low levels of schooling.

According to another research study (Smith Noel et al., 2002), disabled people who rely on state benefits or work for the national minimum wage have weekly incomes that are far below the amount they need for an acceptable quality of life. The study calculates the costs of essential items, including personal assistance, which people with different levels of disability would need to lead their lives on level terms with non-disabled people. This research found that disabled people experienced extra costs that range from major expenditure on essential equipment to routine additional bills for food, clothing, fuel, transport and leisure activities. Disabled people with the greatest needs had been forward to be having highest costs. However, transport costs were found by the study to be greatest for those with fluctuating needs, and communication and leisure costs were highest among deaf people. 'Personal assistance' which broadly include items such as interpreters for deaf people, trainers for visually impaired people and personal care and other domiciliary services were excluded from the comparison with benefits in that study. This research highlighted how substantial these additional costs are and clearly shows that the extent of poverty among disabled people is seriously under-estimated. The monetary benefit levels fall well short of meeting the true costs of disability. Besides, it is equally clear that many disabled people
engaged in paid work are found to have not achieved the income required to meet their needs.

The burden of disability has been aptly summarized in a document published by the Rehabilitation International in cooperation with UN that states ‘aside from the more apparent implications of disability for the people directly affected, disability has important consequences for society as a whole. Disability results in a loss of national income. Like other chronic social and medical problems, it may reduce the capacity of the individual to absorb education, to be productive in work, and to function independently. Disability can place heavy burden upon those who must care for the disabled, sometimes causing a reduction in the economic performance of the care providers. This amounts to a loss in psychic well being, while limiting the economic productivity of his or her family and friends. Economic losses are possible in the future based on the potential effect disability has on the health and well-being of the children of disabled people. Additional indirect effects such as, property losses and marital instability may be present but are rarely included within any analysis’ (United Nations, 1981). Long-term care is often provided by unpaid caregivers. Informal caregivers, often women, have to trade-off between providing care and participating in labour force. We know that women in the household containing a disabled person have to reduce their labour force participation in order to give informal care.

**2.3.3 Costs and Benefits**

The cost-benefit analysis of disability, to a person, employer or society, may not be able to encompass all human and social gains that are not measurable. The perspective may be that of society as a whole, or of a specific social or economic institution, or of an individual. ‘Assuming, like it happens in developed countries, that some form of pension or income assistance would be available to the disabled person were he or she to remain unemployed, the cost-benefit balances of employment will appear differently’ (United Nations, 1981).
To the disabled worker, the benefit side will include salary as against the costs that will cover his/her loss of entire or partial pension, or other such assistance and payment of (higher) taxes and social security contributions. To the employer, who may receive a premium from the State for hiring a disabled person but who may have to make special adaptations of the work place, the benefits include (a) value added to production output and (b) employment premium from the state and the costs include salary of worker and cost of special adaptations. To the state social security or social welfare agency, the benefits are (a) value added to production output (b) diminution of disability payments and administration costs and (c) levying of (higher) taxes and social security contributions from disabled worker whereas, costs to the state agency are (a) cost of services or measures to promote employment and (b) salary of worker.

Assuming that the economic effects of employment of the disabled worker for the community as a whole may be calculated by adding all benefits and deducting all costs, in balance benefit will appear to cover (a) value added to production output and (b) diminution of disability payments and administration costs. On the other side, costs will include costs of services or measures to promote employment.

2.4 Disability Rehabilitation Models

There are different approaches to study and manage disability. The clinical or medical approach, the oldest one, believes that it is the individual physical, sensory or intellectual impairments which poses problems for a person with disability. The psychological perspective looks at disability as specific psychological disturbances which arise on account of the onset of disability. The vocational approach to disability emphasizes the ‘health related’ limitations of a person with disability that imposes a constraint on the amount or kind of work performed by him/her. Some times, the study of disability is undertaken from the angle of ‘minority group’ where it is the aspects like prejudice, discrimination and exploitation etc. that are highlighted. However the most modern approach is to look at disability as a socio-political phenomenon where rights, empowerment, equality of opportunity etc. that emanate from the social context of a person with
disability, is given importance. Depending on the inclination of the society toward one approach or the other, the framework of the rehabilitative efforts are given shape. Hereunder, some prominent rehabilitation models are discussed.

2.4.1 Medical Model

The nature and type of interventions for rehabilitation services for the disabled population depends on the approach to rehabilitation. There are two basic approaches to this issue; the first one is the old theory that believes in the medical and clinical treatment of disability as the prime component of rehabilitation. This medical model considers disabled persons as people with who cannot lead a normal life on account of the impairment they face and ignore the social exclusion and discrimination a disabled person faces and the psychological trauma he/she undergoes. Under this old model, rehabilitation is primarily a medical issue or an impairment problem which does not attempt to take a holistic perspective to rehabilitation services. The conceptual framework of this model as represented by Wood is given in Figure 2.5.

**Figure 2.5: Wood’s Framework**

![Wood's representation of the linkage between impairment, disability and handicap](image)

*Source: Karna, 1999, p.53*

The framework of the medical model has been diagramatically explained by Ahluwalia and Singh (2006) as given in Figure 2.6.
2.4.2 Social Model

The other model approaches rehabilitation from a social dimension as social exclusion, oppression, prejudice and discrimination faced by the disabled persons and the primary objective is to rehabilitate them into the society. It is society that constructs economic, social, health, architectural, legal, cultural and other barriers that prevent people with impairments from enjoying the full benefits of the society. The social model shifts the emphasis from a disabled individual to the society and its disabling attitudes and environment (Baquer & Sharma, 1997). It puts emphasis on mainstreaming the disabled population into the society (Figure 2.7).
2.4.3 Rights-based Model

The recent global model of rehabilitation is a rights based one. The thrust of this approach lies in overall empowerment of persons with disabilities with a view to ensure equal opportunity and full participation in the society. The target is to provide an integrated approach to rehabilitation. In developed countries, the thrust is being shifted to an employment oriented equal opportunity model. Marin Bernd recommends an ‘employment-oriented equal opportunity disability policy model’ that would emphasize activation, customized early intervention, tailor-made work assistance, vocational training and occupational rehabilitation, removal of disincentives to work and employment; it would develop schooling, training, job placement and assistance services, subsidize or otherwise compensate employers for competitive disadvantages eventually stemming from disabled members of the workforce, and support disabled people working by in-work benefits and a rights-based approach based on effective anti-discrimination legislation (Bernd, 2004).
2.4.4 Convergence Model
Under this model, emphasis is given on multisectoral linkages in handling rehabilitation activities in an effective manner (Figure 2.8).

Figure 2.8: The Convergence Model

Source: Ahluwalia and Singh, 2006

2.4.5 Rehabilitation Model in the Indian Context
Rehabilitation, in the present Indian context, includes the following types of services (Krishna, Dutt & Rao, 2001):

(a) Early detection, diagnosis and intervention;
(b) Medical care and treatment;
(c) Social, psychological and other types of counseling and assistance;
(d) Training in self-care activities, including mobility, communication and daily living skills, with special provisions as needed, e.g., for the hearing impaired, the visually impaired and the mentally retarded;
(e) Provision of technical and mobility aids and other devices;
(f) Specialized education services;
(g) Vocational rehabilitation services (including vocational guidance), vocational training, placement in open or sheltered employment.
Many developing countries including India are progressively moving towards a rights based inclusive approach as a model policy guideline. This commitment has been reaffirmed by India in the Persons with Disabilities Act of 1995 and the UN-ESCAP Biwako Millennium Framework Document of 2002 which has been adopted by the Government for action during 2003-2012 (UN-ESCAP, 2002). India is also a signatory to the UN Convention on the Rights of Persons with Disability (UNCRPD, 2008). A National Policy for Persons with Disabilities has been announced by the Government in 2006. A copy of the document is provided at Annexure III. However, the resource availability, level of societal commitment coupled with physical and attitudinal barriers suggest that it will take considerable time before disabled persons are fully included in the society.

2.5 Studies on Disability and Poverty Linkages

2.5.1 Disability and Poverty Linkages

Though the positive association between poverty and disability has been much discussed, literature search shows that some evidencing has been done in case of developed countries while research is scanty in developing countries. The poverty-disability research in developed countries gives a broad indication that disability has linkages with poverty, education, employment and income. It is a fact that poor prospects for education and employment among disabled people, and the intense stigma that they often face, are expected to drive them into poverty (Braithwaite and Mont, 2009). Elwan (1999) summarizes the literature on disability and its relationship to poverty, including education, employment, income, and access to basic social services. Despite the dearth of formal analysis, it is clear that in developing countries, as in more developed areas, disabled people (and their families) are more likely than the rest of the population to live in poverty (Table 2.4). It is stated as a two-way relationship i.e. disability adds to the risk of poverty, and conditions of poverty increase the risk of disability (Elwan, 1999).
Table 2.4 : Association between Disability and Poverty

<table>
<thead>
<tr>
<th>Country</th>
<th>Study</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands &amp; Sweden</td>
<td>1984</td>
<td>Despite generous income support policies, disabled people are disadvantaged in comparison to population norms.</td>
</tr>
<tr>
<td>(Neufeldt)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S (LaPante et.al)</td>
<td>1990</td>
<td>Poverty rate for partnered families increased from 7.8% (with no disabled people in the family) to 9.5% when one partner has a disability and to 14.2% when two partners have disabilities.</td>
</tr>
<tr>
<td>U.K. (Berthoud et.al. )</td>
<td>1993</td>
<td>One sixth of disabled people were poor which increased to almost 50% with extra disability related costs considered.</td>
</tr>
<tr>
<td>India (Harriss-White )</td>
<td>1996</td>
<td>Higher proportion of households with self-reported disabled members were below poverty line, had lower total assets, smaller land holdings and greater debt than households without disabled members.</td>
</tr>
</tbody>
</table>

A report on Poverty and Social Exclusion in Britain published by the Joseph Rowntree Foundation reported that 44 per cent of those in poverty lived in a household which had someone with a long-standing illness or disability. In addition, 24 per cent of children who lived in poverty had a disabled parent (Disability Now, 2000). Daniel Mont, a social protection specialist with the Disability and Development group at the World Bank opines that many people in developing countries are locked in a vicious cycle of poverty and disability. Mont is of the view that this vicious cycle of poverty faced by disabled people is an important issue for the development community. A study in Uganda found that households with a disabled person were 38 percent more likely to be poor, and the PRSP from Serbia-Montenegro reports that 70 percent of disabled people are poor (http://web.worldbank.org). Causes of poverty among the disabled emanate from very low education levels as well as a low employment rate. Major causes of poverty among disabled persons in underdeveloped countries are ‘unemployment – both among disabled persons and their families, ‘low and irregular incomes, inappropriate economic policy, inadequate social and housing policy, a lack of understanding within society of the problems of disabled, inadequate and
incomplete health care, inappropriate legislation dealing with this area, collapse of economy, low level of consciousness, inadequate and unavailable education system’ (IMF, 2004).

It is commonly understood that persons with disabilities are more likely to be poor and that poverty may contribute to sustaining disability. A study that compares data collected from household surveys in Afghanistan and Zambia explores the potential link between poverty and disability and find evidence of lower level of access to health care, education and labour market in case of persons with disabilities, whatever is the disability status (Trani and Loeb, 2012).

A case study from Vietnam examines the relationship between disability and poverty at a health-demographic surveillance site in Viet Nam using alternative measures of severity of disability. It evidences that severity of disability is positively associated with poverty (Palmer, Thuy, Quyen, Duy, Huynh, and Berry, 2012).

In India, on account of acute problem of standardized data and sketchy information and non-availability of comparable data sets over time, no extensive study have been undertaken for establishing poverty disability links in India except for the study of Barbara and Harriss-White as discussed in this chapter. A census of three villages in northern Tamil Nadu was undertaken by Susan Erb and Barbara Harriss-White where they have worked with people’s own definition of chronically sick and disabled household members. The study showed a positive association between poverty and disability. They have estimated that between 17 and 30 per cent of households had at least one chronically sick or disabled member. There was wide inter-village variation as observed in the study. This study found a slightly higher proportion of these households who were below the income poverty line. It found that households with chronically sick and disabled people tended to have smaller family sizes, smaller operational landholding sizes, lower grain consumption from own production and greater market dependence for food (Harriss-White and Subramanian, 1999).
Erb and Harriss–White found that conditions which are not classified as disabling in the medical model of disability can actually incapacitate women and men from working in agriculture, construction, weaving, brick kilns etc. In these villages, instead of one per cent of the population being disabled as those classified in the ‘severe’ medical category, in practice some eight to ten per cent of rural adults find themselves incapacitated from the work (Erb and Harriss-White, 2002). The fact that disability increases dependence not only among children and the elderly, but also among adults of working age. The study contends that ‘poverty is believed both to cause and be a consequence of disability. Impoverished households are perceived as being more susceptible to disabling circumstances. Malnutrition (as a predisposing factor to blindness (vitamin A deficiency) and certain types of physical deformities (cretinism), inadequate access to preventative and curative medical care (including immunization), risks of accidental and/or occupational injury (labouring, carrying heavy loads, pesticide poisoning, etc.) all conspire to increase poor households’ susceptibility to disabling conditions. The inverse, however, is also expected to hold true. Disability is believed to combine with poverty to create situations of downward mobility’ (Erb and Harriss-White, 2002).

A study by Mohapatra (2004) that focused on the disabled population accessing Government institutional services located in various parts of the country covering all categories of disabilities suggest that there exists interdependence between poverty and degree of disability. The study found that higher percentage of poor persons suffer from disability since birth. This was attributed to reasons like under nourishment, malnutrition, poor hygienic condition, lack of care during pre-natal, peri-natal and post natal stages in case of poor households. Lack of both treatment and timely detection has been cited in that study as the dominant causes of acquiring disability by poor respondents which is more likely to occur in case of persons with poverty due to lack of resources and higher degree of illiteracy. About 81% of respondents of the study by Mohapatra admitted that it either has cost them the job or resulted in a change of job with reduced income levels
indicating that disability has impacted the income level and earning capacity and thus has been responsible for downward economic mobility. About two third of indebted poor were found to be having more than 60% disability which may be on account of increase in cost of disability involved in higher degree of disability (Mohapatra, 2004).

A World Bank survey report of 2007 showed that in India, disability is associated with lower socio-economic status. As per the survey of villages in Uttar Pradesh and Tamil Nadu in 2005, there was as clear decline in the proportion of people with disabilities of all severity, as the wealth of households rises (World Bank Report, 2007). Evidence from this study highlights some of the reasons why poverty rates can be higher in households containing person(s) with disability.

2.5.2 Disability, Education and Poverty

On average, disabled people receive less education and are likely to leave school with fewer qualifications than others (Neufeldt, 1995). Despite the fact that supporting data from different countries are not strictly comparable, yet the following table that gives information contained in the UN Disability Statistics Compendium, 1990 of other surveys/studies (Elwan, 1999) illustrate an association in general between disability and education (Table 2.5).

<table>
<thead>
<tr>
<th>Country</th>
<th>Figure relating to</th>
<th>General population</th>
<th>Disabled population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong, 1981 Census</td>
<td>15-24 age group who never attended school</td>
<td>&lt; 4%</td>
<td>&gt; 25%</td>
</tr>
<tr>
<td>Canada, 1983-84, Survey</td>
<td>15-24 age group having 8 years schooling or less</td>
<td>6%</td>
<td>17%</td>
</tr>
<tr>
<td>Bahrain, 1981 Census</td>
<td>10+ age group who are illiterate</td>
<td>27%</td>
<td>77%</td>
</tr>
<tr>
<td>UK, Canada &amp; Hong Kong, UN Compendium 1990</td>
<td>Grade 9 equivalent having a job</td>
<td>55%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>University Graduate having a job</td>
<td>87%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Deon Filmer, using 11 household surveys from nine developing countries has analyzed the relationship between whether a young person has a disability, the poverty status of their household, and their school participation. He finds that youth with disabilities sometimes live in poorer households, but the extent of this concentration is typically neither large nor statistically significant. However, youth with disabilities were observed to be almost always substantially less likely to start school, and in some countries had lower transition rates resulting in lower schooling attainment. The order of magnitude of the school participation disability deficit was found to be often larger than those associated with other characteristics such as gender, rural residence, or economic status differentials. Filmer’s analysis suggests that, in developing countries, disability is associated with long-run poverty in the sense that children with disabilities are less likely to acquire the human capital that will allow them to earn higher incomes (Filmer, 2005). A World Bank report of 2007 reveals that disabled people, defined as people having difficulty undertaking basic activity, received less education, having 52% illiteracy, which is higher as compared to that for the general population. The share of disabled children not enrolled in school was found to be over five times the general rate and disabled children very rarely progress beyond primary school (World Bank Report, 2007).

2.5.3 Disability, Employment and Poverty

Disability imposes functional limitations and inhibits education, thereby reducing employability. Apart from the extent of disability, there are other inhibiting social, economic and educational factors, which adversely impacts employment of disabled person. Many a times, onset of disability may result in change or loss of work of an already employed person. In addition to the direct effect of disability on employment, early onset of disability likely affects the acquisition of education and job skills i.e. human capital. This reduced ‘investment’ in human capital, in turn, may reduce the individual’s employment prospects throughout his/her
lifetime. Those people with early onset of disability are doubly disadvantaged in terms of later employment prospects.

Loprest and Maag have analyzed how early onset of disability affects employment opportunities both directly and as a result of reduced investment in human capital (education) for a younger cohort (aged 22 to 35) and older cohort (aged 44 to 54). In the young cohort, the study finds that people with early onset of disability have a lower probability of completing high school and a lower probability of being employed than those without disabilities. Lower employment rates result from both lower levels of high school completion and a direct negative impact of disability on work. In the older cohort, they find the employment of those with disability is lower than those without disability, regardless of age of onset. However, those with early onset of disability have significantly higher employment rates than those with later onset of disability (after age 22). They have hypothesized that this was a result of people with onset of disability prior to age 22 either choosing careers that can be more easily accommodated than the careers people with later disability onset have, or that people with early onset of disability are more likely to be adept at seeking and using accommodations than those with later disability onset (Loprest & Maag, 2003).

The unemployment rate for disabled people in industrialized countries has been found to be twice or even 3 times than that of non-disabled people (ILO, 1984). The following table gives information contained in the UN Disability Statistics Compendium and other surveys/studies that illustrates an association, in general, between disability and employment/labour force participation or lack of it.
Table 2.6: Association between Disability and Employment

<table>
<thead>
<tr>
<th>Country</th>
<th>Year/Survey</th>
<th>Employment/Unemployment</th>
<th>General population</th>
<th>Disabled population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (Australian Bureau of Statistics, 1993)</td>
<td>1981 Survey</td>
<td>Out of labour force</td>
<td>30%</td>
<td>60%</td>
</tr>
<tr>
<td>Australia (Australian Bureau of Statistics, 1993)</td>
<td>1993 Survey</td>
<td>Out of labour force</td>
<td>26.4%</td>
<td>53.5%</td>
</tr>
<tr>
<td>Canada</td>
<td>1983-84 Survey</td>
<td>Employment in 15-64 age group</td>
<td>65%</td>
<td>41%</td>
</tr>
<tr>
<td>Canada (Neufeldt, 1998)</td>
<td>1991 Survey</td>
<td>Not in labour force</td>
<td>19%</td>
<td>44%</td>
</tr>
<tr>
<td>U.K. (Glendinning &amp; Baldwin, 1988)</td>
<td>1981</td>
<td>Un-employed</td>
<td>8%</td>
<td>16% (of registered disabled people)</td>
</tr>
<tr>
<td>U.S. (Bennefield and McNeil, 1989)</td>
<td>1981-88</td>
<td>Labour force participation</td>
<td>78.9%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Mauritius (SIDA, 1995)</td>
<td>1995</td>
<td>Engaged in economic activity</td>
<td>53%</td>
<td>16%</td>
</tr>
<tr>
<td>Botswana (SIDA, 1995)</td>
<td>1995</td>
<td>Engaged in economic activity</td>
<td>51%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Source: Ann Elwan, 1999

It is obvious that the employability and employment status of the disabled population will be not as good as that of the nondisabled population of the society as the definition of disability is built on the premise of functional restrictions. *A priori* reasoning and casual observation tell us that the labor force status of
an individual is likely to be affected by his health is an unassailable proposition (Bowen and Finegan, 1969).

Scheffler and Iden have provided an assessment of the impact of disability on the supply of labor. The data source employed in this study is the 1967 Survey of Economic Opportunity, which contained information on work-related disabilities. Estimates were made using a two-stage decision model of labor market behavior. At the foundation of their model is the basic choice between work and leisure. It is likely that disability may affect the labor supply decision in two ways i.e. firstly, disability would be expected to increase the relative attractiveness of non-work activity because it would reduce the expected wage rate, as well as affect the disutility of work and secondly, disability may lower the income and asset position of the family. The former, or substitution effect, would be expected to reduce work effort, whereas the latter, or income effect, may increase labor market activity of the family. The major conclusion of in this study is that the disability status of the population is a major factor in determining labor supply. This study showed that labour supply models that do not adequately consider disability are not adequately specified and that presence of disability decreased the coefficients for other variable such as education and disability may produce secondary effects on the work force participation of those close to the disabled person (Scheffler and Iden, 1974).

A study carried out by Disabled Peoples’ International and the International Labour Organization in 41 countries of which 34 were low-income and 7 were high-income nations with the objective of examining ‘income generation strategies’ and finding out models and strategies that might be required for overcoming the roadblocks to economic self-sufficiency by persons with disabilities. The study found that, in high-income countries, disabled people are employed at a rate roughly one-half of that of non-disabled people, and at least twice as many disabled as compared with non-disabled people are not in the labour force. Even when employed, substantially more disabled people, than non-disabled people, are under-employed relative to
their levels of training and education (Neufeldt and Mathieson, 1995). All of this are evidences of subtle forms of discrimination. Little data is available for low-income countries; but it is known that the problem is even more acute for disabled people since there are no social safety nets other than one’s family.

Randolph and Andresen hold that women with disabilities face simultaneous oppression in employment due to discrimination with regard to disability and gender. They have analysed weighted data of US from disability surveillance programs and the Behavioural Risk Factor Surveillance System (BRFSS) of over 47,000 respondents. They found that compared with people without disabilities, there were disparities found for people with disabilities, and women with and without disabilities, with the larger discrepancy for women without disabilities (Randolph and Andresen, 2004).

The presence of young children, with or without disabilities, has a significant negative influence on the work choice of both single and married mothers. However, once children enter elementary school, single mothers with disabled or nondisabled and married mothers with nondisabled children are significantly more likely to enter the labour market or increase their labour market hours than are married mothers of school age children with disabilities (Porterfield, 2002). Another study has analysed the self-reported work-limitation data of NHIS,USA and found that the employment trends of this work limitation-based disability population are not significantly different from the employment trends of the larger impairment-based population (Burkhauser et al, 2002).

It has been evidenced that child disability in a household has a profound impact on maternal labor force activity. A study with data from 369 families of children with cystic fibrosis, cerebral palsy, myelodysplasia or multiple physical handicaps and from 456 randomly selected families with children free of disabilities reports that among two-parent families from the same geographic area, child disability has a negative impact on maternal labor force participation which is higher in case of black and low-income families, as compared to white
and high-income families. However, labor market activity of single mothers did not appear to be significantly affected by child disability (Breslau et al, 1982).

A study by Johnson and Murphy, Jr. had examined the response of low-income households to income losses from disability way back in ‘60s, the economic effects of disability on the family using data from the 1966 Social Security Survey of the Disabled of USA. Disability was defined in that study as a reduction in the labor force activity of an individual that occurs when he has suffered an impairment. For most of those who were severely disabled, wage losses were found to be large and neither public nor private methods of compensation were adequate. This study also concluded that disability is a significant contributor to poverty in the United States (Johnson & Murphy Jr., 1975).

Powers, estimated the impact of child disability on maternal employment and held that since poor families are more likely to have an unhealthy child, child disability may help explain the persistence of poverty across generations as such children with impaired health may require more parental time investment, and appropriate child care may be unavailable or expensive. This, she feels leads parents, particularly wives who are secondary workers, or female heads of households with access to other income sources (e.g., welfare), to spend less time in paid work. The findings qualitatively support the finding of persistent and strong negative effects of disability on female heads (Powers, 2001).

A study conducted by World Bank found that disabled persons in India have lower employment rates. It revealed inter-alia that ‘the large majority of persons with disability in India are capable of productive work. Despite this fact, the employment rate of disabled population is lower (about 60% on average) than the general population, with the gap widening in the 1990s. Having a disability reduces the probability of being employed by over 30% for males in rural Uttar Pradesh and Tamil Nadu, though the effect is lower for women’ (World Bank Report, 2007).
2.5.6 Disability, Income and Poverty

According to a study by Disability Alliance, USA, disabled people have been found to have lower incomes than non-disabled people do in the developed countries even when age is taken into account (Disability Alliance, 1975). The following table gives information contained in various surveys/studies, which illustrates an association in general between disability and income.

<table>
<thead>
<tr>
<th>Study/Survey</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (Surveys from late '50s to late '70s)</td>
<td>Average wage rate of disabled men is 60 % of those of non-disabled people.</td>
</tr>
<tr>
<td>U.S. Survey 1987 (Burkhauser &amp; Daly)</td>
<td>Average earnings of disabled men is 50 % of those of non-disabled men.</td>
</tr>
<tr>
<td>1990 (LaPlante. et.al., 1996)</td>
<td>Studies in UK shows, as compared to non-disabled, fewer disabled persons owned homes, had substantial assets and rights to pensions and other welfare benefits.</td>
</tr>
</tbody>
</table>

Source: Collated from Ann Elwan, 1999

A study of U.K. indicates that earnings of disabled people are lower and the same decreases as the severity of the disability increases (Harriss et al, 1971). An ILO discussion paper expresses key points in relation to disability and the Poverty Reduction Study Process (PRSP) process initiated by the World Bank in general. It states that despite the fact that persons with disabilities in developing countries belong to the poorest of the poor and the PRSP process might seem as their unique chance to be integrated in socio-economic development and poverty reduction initiatives, this has not proven to be the case. (ILO, 2002).

Judith E. Heumann, World Bank Advisor on Disability and Development, opines stated that ‘many acknowledge that disabled people are among the poorest of the poor throughout the world. In developing countries there are estimated to be more than 400 million disabled people. One of the significant challenges faced in the
battle to raise their standard of living is convincing those in authority that their poverty is the result of neglect and the erroneous belief that disabled people are unable to make meaningful contributions to their societies. But like all people, these contributions cannot be made if people are denied decent education, employment, housing, transportation, health care, and respect from their communities (http://www.adb.org). This signifies two things, one is that poverty is closely associated with this group of disadvantaged and two, education, employment, health care and respectable social status can improve the situation. Disabled persons and their families, as a rule, have low incomes, which are mainly social allowances and support for disabled persons received on monthly basis (IMF, 2004).

A recent study by Charles and Stephens, Jr. on job displacement, disability, and divorce used data from the Panel Study of Income Dynamics (PSID) and assessed how negative shocks to earnings coming from job displacement or physical disability affect the probability of marital dissolution. Dwelling on the earnings shocks which are likely to impact on probability of divorce due to change in the expectations from marriage had found that the divorce hazard rises after a spouse’s job displacement but does not change after a spousal disability. This study has established that job loss significantly raises the divorce hazard, whereas spousal disability has no effect. This is an interesting finding that suggests that in western countries, the attitudinal negativity on account of disability that leads to divorce is less. However, the condition of the developing and underdeveloped countries may be different (Charles and Stephens, 2004).

2.6 Policy Perspectives in Developed vs. Developing Countries
Survey of literature reveals that there is a difference in the character and extent of intervention programmes of the governments in developed vis-à-vis developing countries. Being highly market based economies, having better resource availability, the social security programmes as also insurance coverage in developed economies are substantial. The public policy programmes of United States constitutes mainly of income support programmes. (i) The Social Security
Disability Insurance (SSDI) programme and the (ii) Supplemental Security Income (SSI) programme for people not covered by SSDI or having low level benefits from the latter, are the major ones. The workers compensation (WC) system also provides income support for those injured on the job. These programmes (SSDI, SSI, WC) are basically cash transfer disability programmes and also have health insurance coverage as part of the benefit packages (Haveman & Wolfe, 2000).

In the United States, the Disability Insurance (DI) programme involves an annual cash transfer of over $54 billion in 2001. Approximately one-fourth of DI recipients also receive funds from Supplemental Security Insurance (SSI). Autor and Duggan, on the basis of US data between 1984 and 2001 conclude that, the share of nonelderly adults receiving Social Security Disability Insurance income (DI) increased by 60 percent to 5.3 million beneficiaries. It is stated that the liberalized process of disability determination has increased the coverage. The fast growth in the coverage despite improving conditions of aggregate health, as per this study, is attributed to reduced screening stringency, rising cash income replacement rates, and the increasing in-kind value of medicare benefits (Autor and Duggan, 2003).

Disability policy in developed countries has three main goals, (a) easing the burden of impairments and the reduction in earnings capacity, (b) preventing health impairments and/or adapting jobs so that persons with physical and mental impairments can be gainfully employed, and (c) restoring earnings capacity and the ability to undertake other tasks. The backgrounder to these goals is an insurance objective, i.e. the reduction of the risk for loss of income and the costs of medical care associated with a long term or permanent reduction in health of disabled population (Haveman and Wolfe, 2000). In contrast to the United States, both Germany and Sweden have sizable vocational rehabilitation programs. The program in Sweden includes the provision of benefits to workers in rehabilitation that are significantly higher than those paid to disabled workers who are not employed and in this case, workers in rehabilitation receive 90 per cent of their
lost earnings. In Germany, large amounts are also spent on rehabilitation, and employers are subsidized to adapt jobs for the handicapped. Programs in the United Kingdom, apart from the social security ones, are also designed to increase employment.

In US, the proportion of SSDI recipients using medicare has grown from less than 50 per cent in 1975 to more than 75 per cent in 1994. Haveman and Wolfe, have analyzed the programs of five OECD countries (Germany, the Netherlands, Sweden, the United Kingdom, and the United States), and contrasted their programs in terms of ‘freedom from want and freedom from idleness. Countries that are characterized by the first label tend to emphasize income transfers as the main instrument of disability policy; those that are characterized by the second emphasize rehabilitation and the prevention of impairments. Of the five countries, the Netherlands emphasizes income support (freedom from want) to the greatest extent, and does so essentially for all disabled persons. Sweden and Germany separate the disabled by age, offering income support for those 60 and over but placing far greater weight on rehabilitation and the prevention of dependency among younger disabled people. The United Kingdom spends very little on rehabilitation, but also has relatively low income support expenditure, largely because of lower benefit levels’ (Haveman and Wolfe, 2000).

In developing countries, disability-related needs are colossal but formal resources are not allocated to meet such needs. Therefore, imposing dominant models and popular solutions of the developed countries may not fit well for developing countries where the social and cultural contexts are different (Albrecht & Michael, 2001). The focus of disability intervention to whatever limited extent in the developing economies exist, is on providing rehabilitation services, undertaking prevention measures and disseminating information on prevention treatment and rehabilitation. Nobel laureate Dr. Amartya Sen has pointed out in a keynote address at the World Bank that, if poverty lines are adjusted to reflect the fact that disability absorbs substantial amounts of both time and money, poverty rates for disabled people will be even higher. It is clear that the fight against poverty will
not succeed without focused efforts to address the needs of people with disabilities (Sarbib, 2005). In developing countries, apart from poor resource base, lack of effective market and underdeveloped insurance sector, the database on disability is very limited. All these and more have led to ideas about the various dimensions of disability and inadequate rehabilitation services leading to reduced earning capabilities and significant poverty amongst persons with disabilities.

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