

Module 1

Chapter 1

Orientation to the Course

Introduction

Training Guidelines will address approaches to the planning and designing of Barrier Free Environment and Universal Design.

Objectives

1. The utmost objective of the course is to train participants to become master trainers, promoters and resource persons concerning a non-handicapping environment, universal design and a barrier-free society.
2. To link and network participants to promote a non-handicapping environment in their respective states.

Target Group

Architects, Engineers, urban planners, public transport planners, Government officials, special educators, mobility instructors, coordinators, occupational therapists, CBR workers, non-government representatives working on disability related issues and representatives of self-help organizations of PwDs & DPOs.

Expected results of training

Participants can:

- *Promote awareness* of Universal Design.
- *Enforce a design concept* on building applications.
- *Help to incorporate* a non-handicapping environment in agenda items.
- *Build a network* with Government and NGOs to share skills and implement plans.

Chapter 2

Perceptions, Definitions and Terminology

Perceptions

Many of us have an impression that barrier free environment is an expensive affair but it is not so in most of the cases – in fact, it is cheaper if one considers long-term benefit. There is another misconception, it seems only wheelchairs users need accessible environment and making a ramp (often it is a slope) can solve all the problems. There is nothing wrong more than this.

Who is accessibility for?

- Everyone!
- Accessibility is not just an issue for disabled people. It makes participation easier and more effective for everyone. This includes:
 - Young people.
 - Elderly people.
 - People who speak different languages/have different learning styles.
 - People with hidden impairments (diabetes, epilepsy).
 - People with temporary ailments.
 - Pregnant women.
 - Parents and carers.
 - People with heavy luggage.
 - And it is for the people who have difficulty seeing, hearing, moving, learning, and or/speaking; whether this is mild or severe, whether or not they define themselves as disabled, whether or not their impairment is obvious.

Barrier free environments (environments without physical barriers) enable parents with young children, elderly people and disabled people to integrate. Special needs for special people segregate; universal design integrates!

Who is responsible for barrier free environment?

Everyone – because an inclusive society, in which everyone can participate, will only happen if everyone is committed and plays their part.

Definitions

The World Programme of Action concerning Disabled Persons recognizes that disabled persons do not form a homogenous group. In 1980, the World Health Organization adopted an international classification of “impairment”, “disability” and “handicap”. There is a clear distinction among these three. Previous terminology

to define these terms reflected a medical or diagnostic approach. The new definitions represent a more precise approach.

People with visual, hearing and speech impairments and those with restricted mobility or with so-called “medical disabilities” encounter a variety of barriers. From this perspective of diversity in unity, it is useful to clarify the distinctions among three commonly used terms.

- a. *Impairment* is any loss or abnormality of psychological, physiological or anatomical structure or function. Impairment can be temporary or permanent. This includes the existence or occurrence of an anomaly, defect or loss in a limb, organ, tissue or other structure of the body, including the systems of mental function.
- b. *A disability* is any restriction, or lack of ability (resulting from an impairment), to perform an activity within the range considered normal for a human being. A disability may be temporary or permanent, reversible or irreversible, and progressive or regressive.
- c. *A handicap* results from impairment or a disability and limits or prevents the fulfillment of a function that is considered normal for a human being. A handicap is therefore seen in the relationship between disabled persons and their environment. Cultural, physical or social barriers to mobility within the built environment are handicaps.

A “Handicapping Environment” as stated by the UNESCAP means the building, roads, pedestrian pathways including public transport and communication systems, which are all components of a built environment. Barriers from these components, not only affect PwDs but elderly persons and the well being of many other users.

PwDs and a diverse group of people in society have the right to move about freely in a safe physical environment without any obstacles. Everyone benefits from a built environment that meets the safety standards, convenience and usability of PwDs.

“*Accessibility: Environment & Public Transport*” is a priority area of the New Asian and Pacific Decade of Disabled Persons: Biwako Millennium Framework for Action towards an Inclusive Barrier-Free and Rights based Society for PwDs in Asia & the Pacific.

Terminology

The following terms used in this manual have the meaning indicated in this section:

Access

Means to enable persons with or without disability to approach, enter and leave a building, and to reach and use its facilities without assistance and undue difficulties.

Access Aisle

An accessible pedestrian space between elements, such as parking spaces, seating and desks, that provides clearances appropriate for use of the elements.

Accessible

A site building, facility, or portion thereof that complies with this manual and that can be approached, entered and used by people with disabilities.

Accessible Route

A continuous unobstructed path connecting all accessible elements and spaces in a building or facility that can be negotiated by a severely disabled person using a wheelchair and that is also safe for and usable by people with other disabilities. Interior accessible routes may include corridors, ramps, elevators, lifts and clear floor space at fixtures. Exterior accessible routes may include parking, access aisles, kerb ramps, walkways and ramps.

Ambulatory Disabled

A person who is able, either with or without personal assistance, and who may depend on prostheses (artificial limbs), orthoses (calipers), sticks, crutches or walking aids to walk on level or negotiate suitably graded steps provided that convenient handrails are available.

Beveled

Smooth, slanted angle between two surfaces for example, a slant and inclination between two uneven surfaces to allow easier passage of a wheelchair.

Buildings intended to be used by the public

Means a building where the whole or any part of which the public or a section of the public has or may reasonably be expected to have access.

Circulation Path

An exterior or interior way of passage from one place to another for pedestrians, including walkways, hallways, courtyards, stairways and stair landings.

Clear

Unobstructed

Curb

A side barrier to trafficable surfaces.

Curb Ramp

A short ramp cutting through a curb or built up to it.

Grab bars

A bar used to give a steadying or stabilizing assistance to a person engaged in a particular function.

Handrails

A rail used in circulation areas such as corridors, passageways, ramps and stairways to assist in continuous movement.

Individual Washrooms

A compartment having the basic requirements of a water closet compartment, washbasin and other essential washroom accessories as required by people with disabilities.

Operable Parts

A part of equipment or appliance used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance (for example coin slot, pushbutton, handle, etc.)

Person with Disability (PwD)

A person who, as a consequence of physical disability or impairment, is either ambulant disabled; a wheelchair user; has visual, speech and hearing impairment; is mentally challenged or has learning disability.

Public Use

Describes interior and exterior rooms and spaces that are made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

Ramp

An inclined slope connecting one level with another.

Space

A definable area (toilet room, hall, assembly area, entrance, storage, room alcove, courtyard, or lobby etc.)

Symbol

Symbol of access for the disabled person.

Tactile

An object that can be perceived using the sense of touch.

Wheelchair user

A person who depends solely on a wheel chair for mobility except when using mechanized transport.

Chapter 3

Constitutional and Statutory Provisions

The Parliament of India, on many occasions, expressed its concern about persons with disabilities and enacted laws to deal with matters connected with disability. The first reference to disability was brought in the Seventh Schedule of the Constitution (State List at Entry 9), which empowered the State Governments to make laws with respect to relief of the disabled and unemployable.

Subsequently, the Seventythird and Seventyfourth Amendments to the Constitution of India made “safeguarding the interest of weaker sections of the society, including handicapped and mentally retarded” a constitutional obligation as referred to in the Twelfth Schedule.

The Parliament of India enacted **THE PERSONS WITH DISABILITIES (Equal Opportunities, Protection of Rights and Full Participation) ACT, 1995** which cast obligations on appropriate Governments and local authorities for creating barrier free facilities. For example:

Section 30 stipulates that the appropriate governments shall by notification prepare a comprehensive education scheme, which shall make provision for:

- (b) the removal of architectural barriers from school, colleges or other institutions, imparting vocational and professional training.

Similarly, Section 38 stipulates the appropriate governments and local authorities shall by notification formulate schemes for ensuring employment of persons with disabilities, and such schemes may provide for:

- (d) health and safety measures and creation of a non-handicapping environment in places where persons with disabilities are employed.

To ensure right to employment for PwD’s Section 45 calls upon the appropriate governments to provide for-

- (a) installation of auditory signals at red lights in the public roads for the benefit of persons with visual handicap;
- (b) causing kerb cuts and slopes to be made in pavements for the easy access of wheel chair users.
- (c) engraving on the surfaces of the zebra crossing for the blind or for persons with low vision.
- (d) engraving on the edges of railway platforms for the blind or for with low vision; and
- (e) devising appropriate symbols of disability.

In protection of the Right to have free access to public places, the Disability Act in Section 46 enjoins upon the appropriate governments and the local authorities to provide for:

- (a) ramps in public buildings.

- (b) braille symbols and auditory signals in elevators and lifts; and
- (c) ramps in hospitals, primary health centers and other medical care and rehabilitation institutions.

The architects of the Disability Act were conscious of the fact that for the creation of barrier free environment in educational institutions, vocational training centers, places of work and in other public places, special designs of buildings and special technologies would need to be developed. Section 48 of the Act calls upon the appropriate governments and local authorities to promote and sponsor research, inter alia, in the *on site modifications in offices and factories*.

As a follow up action of the PWD Act, the Ministry of Urban Development, Government of India, in collaboration with UNESCAP, undertook demonstrative exercises in Delhi to create a barrier free built environment in a two sq. km. area of Indraprastha Estate. This further led to a preparation “Guidelines and Space Standards for Barrier Free Environment for Disabled and Elderly Persons (1998)” by the Central Public Works Department, Ministry of Urban Affairs & Employment. Further a reference was made to all State Governments to make suitable amendments in their building bye-laws to respond to this Act.

The Bureau of Indian Standards had already brought out the minimum provision to be made in public buildings for providing access to PwDs, way back in 1983 in the National Building Code. The Planning Commission report on the Tenth Five Year Plan also lays stress on issues connected with accessibility for disabled persons.

(Inputs from Shri P.R. Mehta, President, Council of Architecture)

Implementations

There are several obstacles to the implementation of guidelines and legislative measures on barrier-free design. The promotion of barrier-free built environments is a new area of work. Access improvement requires the close cooperation of technical personnel with responsibility in different areas that are all related to the built environment, primarily architects, engineers (including transport technologists and traffic engineers) and town planners.

Even where guidelines and legislative measure exist, poor implementation and enforcement remain serious issues. With respect to implementing and enforcement agencies responsible for the built environment, insufficient systematic effort has been made to draw the attention of decision makers as well as of technical personnel at all levels to the significance of barrier-free design for the full participation and equality of people with disabilities. There is little understanding among the decision makers and technical personnel of the benefits of barrier-free design for large numbers of other user groups. They do not recognize that the large number of users who would benefit from barrier-free environments include elderly, children, women and those who may be frail, temporarily disabled or have hidden disabilities and, therefore, access needs that are similar to those of disability groups.