

# Adapting the Home and Community

CHAPTER

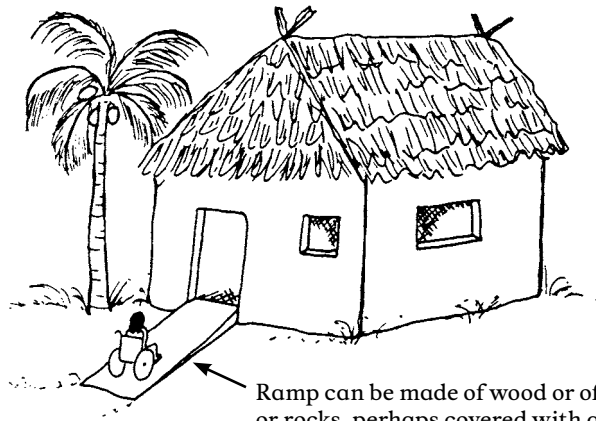
# 51

## ADAPTING THE HOME

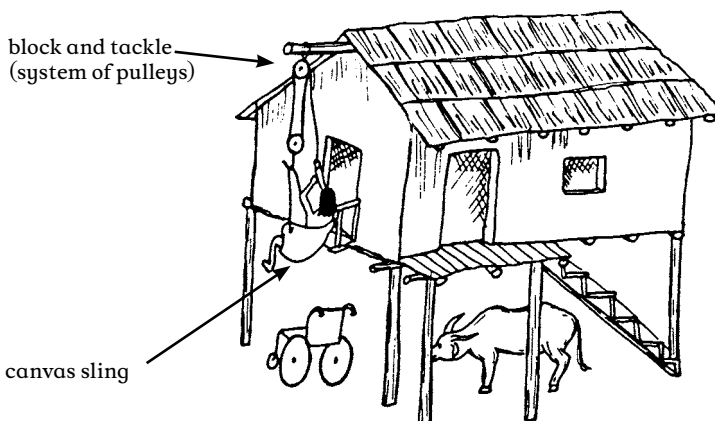
The kind of adaptations needed in the home will partly depend on the kind of disability a child has, the severity of the disability and the age and size of the child. Adaptations for a child with loss of vision are very different than those for a child with paralysis who uses a wheelchair. A child who is completely dependent will need aids and adaptations to help the family care for him and move him—especially as he gets older and grows bigger. However, the child with disabilities who can do a lot for herself may be helped by adaptations that make self-care and work in the house easier.

The kinds of adaptations needed will also depend on the local living situation, style of house, and customs. For example:

A simple ramp may work well for a wheelchair entrance to a house near ground level.



Ramp can be made of wood or of dirt or rocks, perhaps covered with a thin layer of cement. For details, see p. 489.



block and tackle  
(system of pulleys)

canvas sling

A system of ropes and pulleys may be the best way for a person with strong arms to lift herself without help to a “house on stilts.”

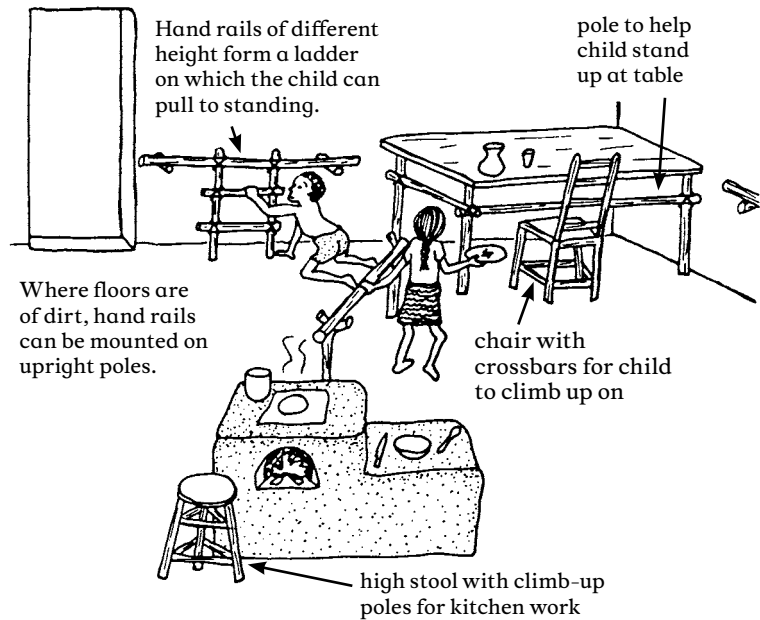
The “lift” can be made with a platform so that the whole wheelchair can be lifted. But if the house is small and people cook and eat at floor level, it may be best to leave the wheelchair outside.

## Adaptations for the child who is learning to walk and balance

### HAND RAILS

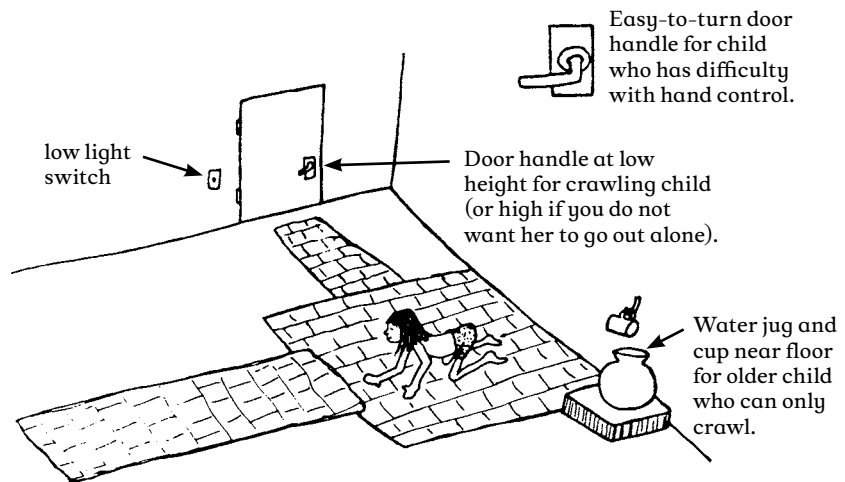
These can be fixed to the walls and furniture. If necessary, pathways with rails can be put up so that the child can walk with support almost anywhere in the house, and also outside to the latrine (toilet) or garden (see p. 507).

Before attaching hand rails firmly, have the child test them with a temporary rail at different heights to find out what works best. As the child grows, you may need to place the rails higher. Or you may want to remove rails little by little to help the child improve her balance and walk more independently.



### MATS

For the child who only rolls or crawls, some kind of straw mat or rug will help protect her knees and skin, and will help her stay cleaner (if floors are of dirt).

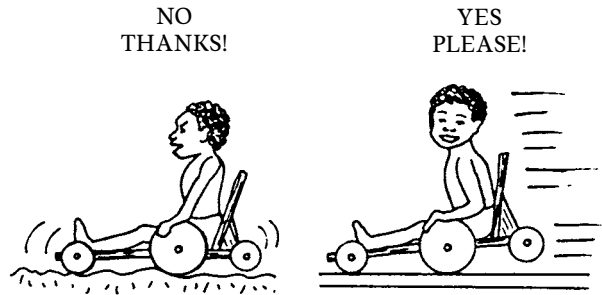


The “model home” in PROJIMO is a guesthouse. It has features that make it easier to care for a person with disabilities, or for a person with disabilities to care for herself and her family. Visiting families can find out what is useful for their child and can adapt their own home. Here PROJIMO workers split wild cane to make screens to keep out the animals.

## Home adaptations for wheelchair riders

### FLOORS

For almost any person with disabilities—but especially those who use wheelboards or scooters with small wheels, the floor should be as smooth and firm as possible (but not slick or slippery). Packed, smoothed clay-and-cow-dung surfaces (as used in India) work well. Cement is even better for long-lasting use of a trolley or wheelchair. Although expensive, a smooth cement floor makes getting around a lot easier.

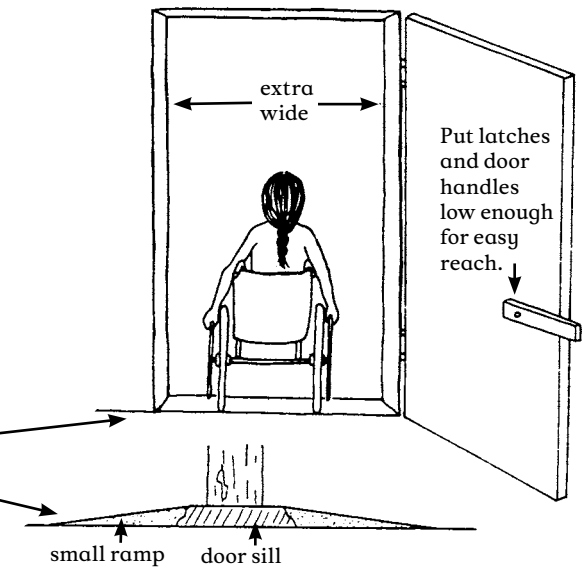


### DOORWAYS

Make all doorways extra wide. Remember, your child will grow and may need a bigger, wider wheelchair.

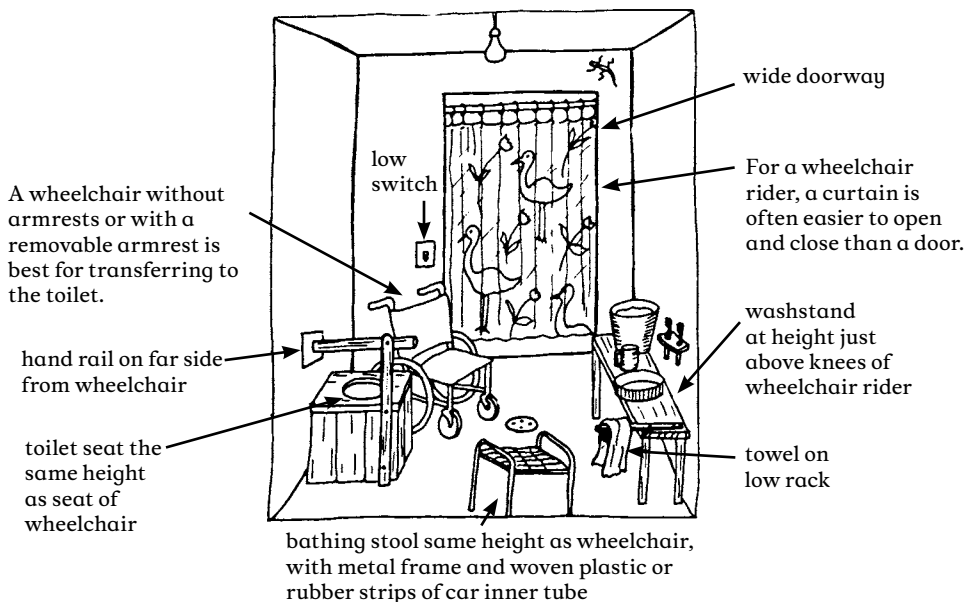
In a house that already has very narrow doorways, be sure the wheelchair you buy or make is narrow enough to fit through easily. Most commercial chairs are much wider than necessary, especially for a child.

Try to avoid any rise or bump at the doorway. If it already has a raised sill and you cannot remove it, build a small ramp to go over it. This will be especially helpful for children with weak muscles in their arms and hands.



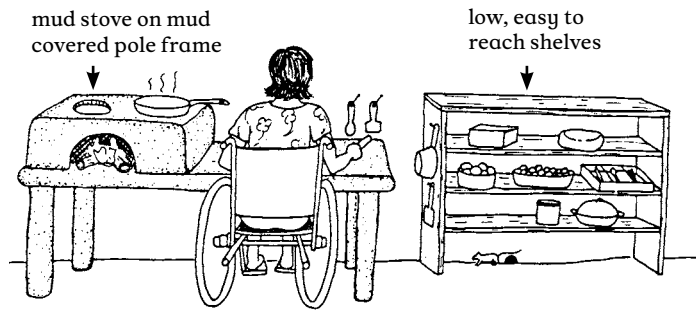
### BATHROOM OR OUTHOUSE (LATRINE)

Be sure the room is big enough for a wheelchair to turn around in easily.



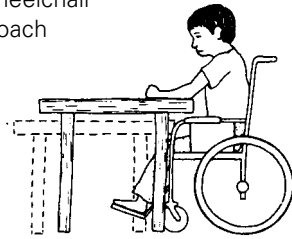
**KITCHEN AREA**

The stove, work areas, and tables should be as low as possible, but high enough so that the legs of the wheelchair rider can fit under them.



The cooking and eating area in the model home at PROJIMO has a lot of adaptations.

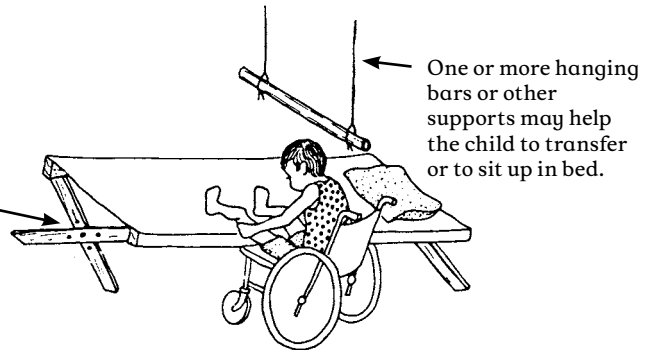
**CAUTION:** If the wheelchair has high fixed armrests, the tables and oven will have to be higher. Or the wheelchair will have to approach from the side, in which case the table should be lower.



**BED OR COT**

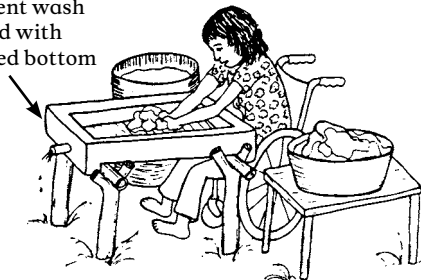
The bed or cot should be the same height as the wheelchair for easier transfer.

Cot height can be adjusted by drilling new holes and changing the position of the bolt.



**WASHING AREA (outdoor)**

cement wash stand with ridged bottom



Outdoor washing area at PROJIMO—designed for work from a wheelchair.

**IMPORTANT:** Before building fixed-height stoves, tables, and wash areas, set up something temporary to figure out what works best. Remember that the child is growing, so try not to make things too fixed or permanent.

## ADAPTING THE COMMUNITY

In many villages, people with disabilities have a hard time going places because streets or paths are rough, rocky, or sandy. Also, there may be high steps for getting into stores, the cinema, and even the town meeting hall, school, and health center.

A village rehabilitation program can encourage the villagers to make it easier for people with disabilities to go places and to participate in community activities.

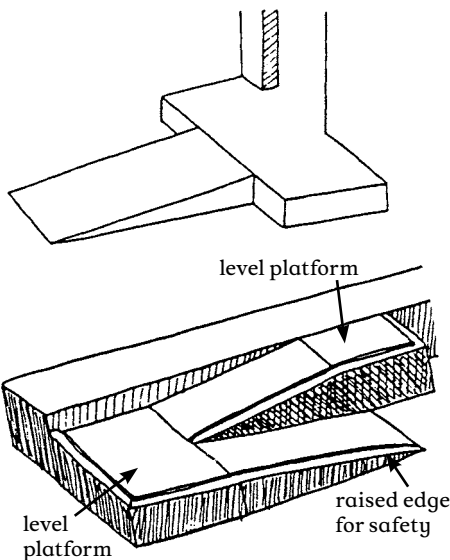
For example, ask storekeepers to build ramps so that wheelchairs can enter their stores. People with disabilities and their families can promise to give their business to those who cooperate in this way, and if necessary, can boycott (refuse to buy from) those who do not.



In Ajoya, Mexico, the rehabilitation team convinced store owners to build ramps so that the wheelchair riders could enter the stores. The store owners provided the materials and local masons volunteered the labor.

### RAMPS

The more gentle the slope of the ramp, the easier it is for a wheelchair rider to go up it.

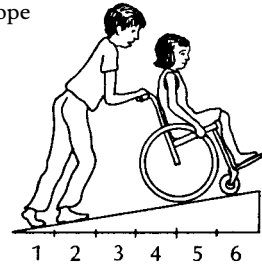


One or more ramps can be put parallel to the edge of the raised area. Be sure to leave large level platforms for turning.

Addition of hand rails will add safety and make going up ramps easier for persons who walk with difficulty.

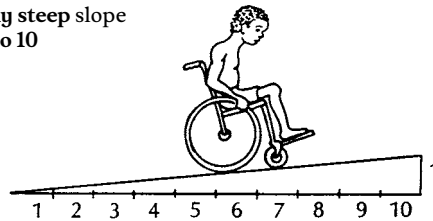
HOW STEEP YOU MAKE THE RAMP DEPENDS IN PART ON WHO IT IS FOR.

**Very steep slope**  
of 1 to 6



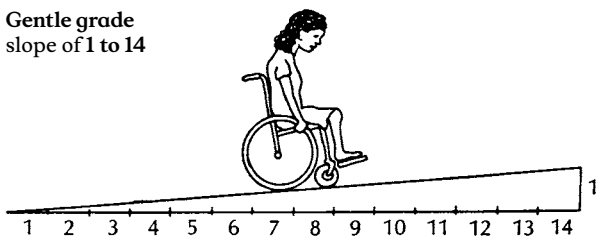
Only possible with electric wheelchair or with help. Rarely possible for rider alone. Chair may tip backwards.

**Fairly steep slope**  
of 1 to 10



Possible for riders with strong arms and strong people with paraplegia.

**Gentle grade**  
slope of 1 to 14



Possible for average riders and strong people with quadriplegia. This is the best slope for public buildings and rehabilitation centers.

## Improvement of walkways and trails

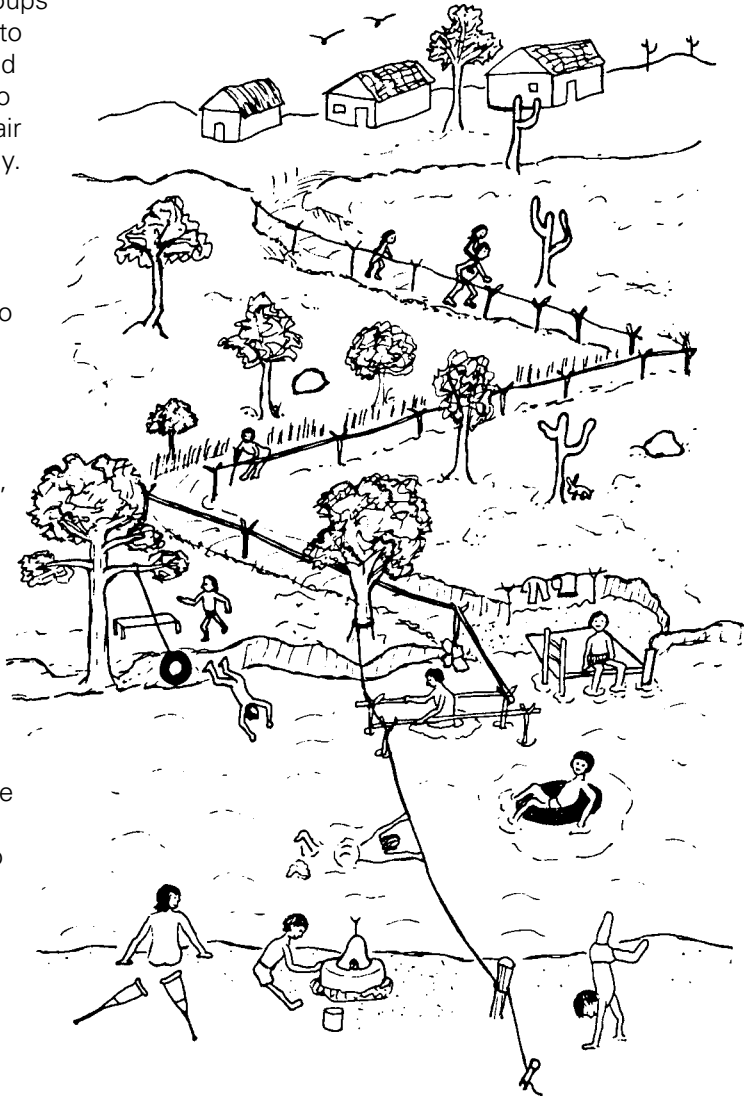
Community work parties or groups of schoolchildren can organize to help fix up smooth, hard-packed pathways through the village so that crutch users and wheelchair riders can go places more easily.

Also, if possible, easy-to-use pathways can be set up so that children with disabilities and adults can get to play areas, bathing areas, and family work areas.

### HAND RAILS (or ropes)

When placed along steep trails, these may permit children with vision loss, who have difficulty with balance, or who have difficulty walking to reach areas such as swimming or fishing holes.

In one village, a rehabilitation team together with some of the village children improved the steep trail down to the river, so that children with disabilities would have a chance to play and swim.



The health workers of Project Piactla built this ramp so the wheelchair riders could come into the clinic more easily. (Photo: John Fago)



A narrow wood ramp with sideboards lets this child pull himself up it on his skateboard.