

## Handicap International

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### Introduction

Although Handicap International has more than ten years experience working for and with disabled people in developing countries, we do not want to give an account of our programmes in the world, with figures or statistics, but will explain our understanding of the situation which determines the implementation of our projects.

### Dynamic organisation of the situation of handicap

Let me first remind you of some useful WHO definitions and propose a dynamic organization of the concept of handicap (Fig. 1).

An **impairment** is considered as a loss or abnormality of psychological, physiological or anatomic structure or function.

A **disability** is any restriction (resulting from an impairment) or lack of ability to perform an activity in the manner or within the range considered normal.

A **handicap** is a disadvantage resulting from an impairment or disability that limits or prevents the fulfilment of a role that is normal relative to age, sex and culture factors.

A general situation, a global context determines the development of specific pathologies. Mine accidents or poliomyelitis in Cambodia, car accidents in France, etc.

These pathologies, combined with the context, will bring the patient to some kind of impairments e.g. mine accidents produce amputations. These impairments will produce a restriction of the patient's ability, described as a



Fig. 1. Dynamic organization of situation of handicap

disability. At this point, we come back to the starting point of the circle due to the fact that a combination of the disability and the context will produce a situation of handicap. We prefer to say "situation of handicap" instead of "handicap" because many factors will act to modify, in a positive or negative way, the handicap.

*A situation of handicap is not a definitive state but a flexible and evolving situation.*

Starting from this concept, it is clear that different actions can be taken to act positively on this situation of handicap. It is possible to act on the context to avoid pathologies:

- mine clearance operations
- mine awareness programmes
- vaccination campaigns, etc.

We can also act on the pathology to avoid an impairment; this is one of the objectives of physiotherapy treatments. Sometimes, if we pay attention to the context, we will have a better impact on the patients' situation of handicap with environmental adaptations than with "high tech" devices (David Werner's example of the donkey). Moreover, medical and rehabilitation teams should adapt their attitude and treatment according to the environment, the poor capacity

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of follow up, maintenance and financial resources to support lifetime treatment.

#### Appropriate technology

If we keep in mind that there is no short cut to progress, implementation of services by the progressive development of well adapted technologies and training of local personnel will provide part of the answer. In general, there is no simple way to provide adequate treatment for physically disabled people. It is particularly difficult in developing countries where the health system is often unable to meet the most urgent and basic needs of the population.

Within this difficult context, it is essential to determine the most appropriate means of providing durable assistance for the disabled people. It is difficult to claim that only one technical solution suits a specific situation. Considering the whole situation of a population, the general context can make us more aware of the needs of the people and the adequacy of the proposed solution based on the local absorption capacity. Sometimes a simple device, not manufactured according to academic standards, but which can be locally repaired, could have a great advantage. Only continuous research, deep consideration of the exact need of the population, critical evaluation of services, progressive implementation of services and repeated adjustment based on experience, will meet with success.

#### Global and comprehensive approach

Rehabilitation is a long process, and orthopaedic and assistive devices represent only a step in this process (Fig. 2).

Handicap International is always very keen not to focus only on the technology aspect of rehabilitation. The technology has to be at the service of the rehabilitation process and not the contrary.

For that reason it is important to keep a global and comprehensive approach to the rehabilitation process, hoping to achieve an improvement of the social and economical situation of the patient.

#### Situation in Cambodia

In Cambodia, the Ministry of Social Affairs, Labour and Veterans' Affairs is in charge of the vulnerable groups, including disabled people. The organizations working in this country have



Fig. 2. The rehabilitation process

to participate, with the Ministry, in the establishment of a National Plan to try to face the needs in the field of rehabilitation.

For Handicap International, the key points of this plan should include decentralisation of services, standardisation of technology, establishment of a logistic network, no duplication of services, long term viability, transfer of technical knowledges, management capacities and financial resources to local personnel and local authorities.

#### Handicap International programmes in Cambodia

Handicap International currently runs six programmes which illustrate the Handicap International wish to follow and develop the comprehensive approach mentioned herewith.

1. Six orthopaedic centres manufacturing prostheses (in six provinces).
2. Physiotherapy school (Phnom Penh and provinces)
3. Paraplegic and tetraplegic rehabilitation centre (Battambang)
4. Social and economic rehabilitation programme (in eight provinces)
5. Management support to CMAC (Phnom Penh and three provinces)
6. Training of sport teachers for disabled people (Phnom Penh and Battambang)

### Orthopaedic workshops

Handicap International has been active in Cambodia since 1982 in implementing the manufacture of prosthetic devices and walking aids. The assistance programme aims to help victims of war who have lost limbs in the minefields of Cambodia, as well as other amputees and disabled people.

Handicap International has opened prosthetic workshops in 6 provinces: Takeo, Kampot, Kompong Thom, Kompong Cham, Pursat and Siem Reap, which are situated in the most mined areas of Cambodia. This programme is run in close collaboration with the Ministry of Social Affairs, Labour and Veterans Affairs, which is officially employing the prosthetic technicians. Four of these workshops are using the polypropylene technology, which will also be introduced in a fifth centre in 1995, in a way of standardisation of technology throughout Cambodia. The six workshops supervised by Handicap International are now producing, 1,500 prostheses a year altogether, as well as crutches and wheelchairs.

The primary objectives of increasing production levels and of improving the quality of prosthetic devices are being achieved through the increased deployment of expatriate staff in the provinces and through increased supplies of materials. However, professional orthotist-prosthetist expatriates are still supervising the local staff in the workshops in order to improve their skills and knowledge. Emphasis has also been placed on strengthening links between the hospitals and prosthetic workshops. Physiotherapists, trained in Phnom Penh by Handicap International, in collaboration with the Ministry of Health, and based in the provincial hospitals are currently performing the gait training in the rehabilitation centres. The number of expatriates is now decreasing. However, Handicap International plans to stay some years more until the Ministry of Social Affairs, Labour and Veterans Affairs have the capacity to take over the programme.

### Foot factory in Phnom Penh

In 1991, the American Friends Service Committee (AFSC), the International Committee of the Red Cross (ICRC) and Handicap

International (HI) agreed on a strategy regarding the technology, the level of training and the salary policy. This common strategy was initiated because of the opening up of the country and the arrival of several NGOs. AFSC, ICRC and HI were concerned with the need for a coherent aid policy. The Comprehension Letter signed by these three organisations resulted in the following decisions:

- AFSC is in charge of the training of prosthetic technicians (1 year training course).
- ICRC is in charge of the production of the prosthetic modular components.
- HI is in charge of the production of prosthetic feet.

Different options were considered to secure the future autonomy of the artificial foot production. A Cambodian private company based in Phnom Penh and specialised in the production of inner tubes for bicycles has been identified as the most promising appropriate option. The factory has been producing feet since 1992. Today more than 10,000 pairs of SACH feet have been provided to the majority of the agencies working in the field of prosthetic device production in Cambodia: American Friends Service Committee, American Red Cross, Cambodia Trust, the International Committee of the Red Cross, and the National School of Prosthetics and Orthotics. Handicap International has also exported the foot to Laos with World Vision International, and to Vietnam and Thailand, in the Sirindhorn National Medical Rehabilitation Centre based in Bangkok.

The foot is made in 3 sizes:

Large size:	25 cm length	800 gr weight
Medium size:	23 cm length	600 gr weight
Small size:	17 cm length	320 gr weight

The materials are available locally: recycled polypropylene and rubber from the Cambodia province of Kompong Cham. With the investment in the last two months in twelve new aluminium moulds made in Phnom Penh, a belt sander and a floor drill, the project is totally independent of any NGO. Handicap International is only the customer of the factory, however we still support and improve the project regarding the control of the quality to offer better services to the disabled people.