Mobile Vocational Training Units
A survey by Katarina Larsson

Elevation Section A-A
(Not to Scale)

Elevation Section B-B
(Not to Scale)
MOBILE VOCATIONAL TRAINING UNITS

A SURVEY

Katarina Larsson
Autumn 1982
The views and interpretations expressed in this survey are those of the author and do not necessarily coincide with those of SIDA.
TABLE OF CONTENTS

FOOD FOR THOUGHT .................................................. 1
INTRODUCTION ........................................................ 3
SUMMARY .................................................................. 5
RECOMMENDATION .................................................... 7
  Administrative feasibility
  Economic feasibility
  Pedagogic feasibility
  Political feasibility
  Social feasibility
  Technical feasibility
DEFINITIONS OF "MOBILE VOCATIONAL TRAINING UNIT" ........ 11
PRESENTATION OF MOBILE TRAINING UNITS .................... 13
AFRICA .................................................................. 14
  Ghana .................................................................. 14
  Ivory Coast ........................................................ 14
  Kenya .................................................................. 14
  Sudan .................................................................. 14
  Tanzania ............................................................ 18
ASIA AND THE PACIFIC ................................................. 23
  Afghanistan ......................................................... 23
  Bangladesh ........................................................ 25
  Burma .................................................................. 25
  Fiji ..................................................................... 25
  Indonesia ............................................................ 32
  Iran ..................................................................... 37
  Sri Lanka ............................................................. 37
  Thailand ............................................................. 39
  West Irian ............................................................ 40
LATIN AMERICA .......................................................... 41
  Brazil .................................................................... 41
  Chile ..................................................................... 46
  Colombia ............................................................. 46
  Honduras ............................................................. 50
  Peru ..................................................................... 50
  Venezuela ............................................................ 51

Appendices

1 Sources of Information, including Bibliography .................. 57
2 "Integration of Women" ............................................... 63
3 "Occupational Training Needs Assessment" ....................... 67
FOOD FOR THOUGHT

When I study a project I always ask three basic questions:
Who decides?
Who participates?
Who benefits?

Dr. D.L. Umali, Assistant Director General and Regional Representative for Asia and the Pacific, FAO, in an interview in 1980

* * *

Once substantial inequality has been established in a society undergoing 'development', the self-interest of those who benefit most, and have the greatest power, will tend strongly to perpetuate and increase the divisions. Male bias has been built into development institutions, processes and policies, and even if all new programs were placed overnight on a foundation of equal access for all, regardless of gender, the momentum of unequal processes already in operation would remain very powerful. Without wishing to accept the inevitability of inequality which is implied in some dualistic analysis, we must realise that discriminatory processes, working against women in development, are extremely strong. If we are to challenge them, we must first try to understand how they function.

Barbara Rogers in "The Domestication of Women", 1980

* * *

Do not repeat the same mistakes too often.

Zbigniew Janczewski, Social Scientist, in an interview in 1981
INRODUCTION

Background

In 1980, the Vocational Training Section of the Education Division, SIDA requested me to make a survey of mobile vocational training units in different parts of the world. This survey was needed at SIDA as background information in the planning of vocational training programmes, particularly in Tanzania.

My survey of mobile vocational training units was first published in 1980 in Swedish. At the request of colleagues outside of Sweden, this English version has now been prepared. Needless to say, it does not claim complete coverage of the subject. I am well aware that the month I had at my disposal to make the survey was insufficient to give a detailed presentation of all the 50 mobile vocational training programmes referred to, especially since the documentation available in several cases was only fragmentary.

In spite of its shortcomings, I do, however, hope that the survey, the first if its kind, will be found useful by planners and implementors of mobile vocational training programmes.

Terms of reference

My assignment was to give a presentation of mobile vocational training programmes in developing countries. Special emphasis was to be given to programmes supported by ILO and to women’s participation. I was also expected to give recommendations based on my findings.

Earlier reports on the same subject

According to ILO, Geneva (1982), there is no comprehensive survey in English of completed, ongoing and planned mobile vocational training programmes in Africa, Asia and Latin America. In 1979-80, Mr Skretvedt, ILO, Geneva, worked on a draft called "Mobile Units for Skill Training - Rural Areas - A Guide to Effective Use in Developing Countries". This draft (available at SIDA) does not contain presentations of specific programmes. Mr Skretvedt left ILO in 1980.

Cinterfor, the Latin American research and documentation centre for vocational training, has published a series of descriptive reports (Project 090) about mobile vocational training units in Latin America. Results of reviews and evaluations are reported only to a limited extent in these reports (see p41).

In 1979, ARSDEP, the Asian Regional Skills Development Programme, requested the Asian Development Bank to finance a technical report on rural mobile training units in Latin America, Africa and Asia as well as a regional or sub-regional seminar to study this report and follow it up. The request was rejected by the Asian Development Bank later that year.
In 1980, it was proposed that the World Bank should finance a comparative analysis of existing mobile vocational training units in Indonesia and other countries in Southeast Asia. This study was postponed to a later date (see p32).

Sources of information

The information in this survey of mobile vocational training units is based on:

- interviews in 1980 and/or 1982 with colleagues at ILO and WHO in Geneva, and at SIDA in Stockholm

- a thorough review in 1980 of all available writings in English, French, German, Portuguese and Spanish in the ILO (Geneva) files on mobile vocational training units: reports, memoranda, letters, brochures, search service lists, etc

- study of relevant documents at the Vocational Training Section of the Education Division, SIDA and the SIDA Library

- my own experience, mainly from Afghanistan, Indonesia, Sri Lanka and Thailand

Detailed references are given in the text at the end of each presentation of mobile training units. In addition, a list of references is presented in Appendix 1, Sources of Information, including Bibliography, p 57.

Furthermore, I have prepared a file on Mobile Vocational Training Units, containing most of the writings referred to, for the Vocational Training Section of the Education Division, SIDA. Cp Appendix 1, Sources of Information, including Bibliography, p 58.
A total of 50 mobile vocational training programmes in 22
developing countries in Africa, Asia, the Pacific and Latin
America are presented in this survey. As far as available data
permit, the programmes are presented with background, objec-
tives, donors, structure/size, trainees including women's
participation, staff, courses, transport/facilities, evalua-
tions, comments and references.

It may be questioned to what extent the rural poor have really
benefitted from these programmes. At ILO in Geneva, it was
stated that no ILO-supported mobile training programmes had
been totally successful. In many cases, the mobile units had
become stationary after some time. The vehicles had often been
too heavy for the rural roads, and the training contents not
adapted to local needs. The confidence in modern, sophisticated
educational technology was surprisingly great in some pro-
grammes. Training of instructors was unsatisfactory of non-existent
in several cases. In other cases, the political commitment and/
or the financial support were not strong enough. Another prob-
lem was lack of administrative and technical backstopping from
a vocational training institution. In many cases the planning
was inadequate, in some cases remarkably so.

Regarding women's participation, the situation is unsatisfactory.
The survey clearly shows that almost all ILO-supported pro-
grammes have been operated predominantly by men, with men, for men.
For example, in the Tanzania Forest Worker Training Project
(p 18) and the Tanzania National Vocational Training Programme
(p 20) all the planners, advisers, instructors and trainees
were men. All officers at the Rural Vocational Training Branch
at ILO in Geneva are men. Appendix 2 to this survey is "Inte-
gration of Women", a memorandum well worth reading and consider-
ing. On page 20, I am suggesting that it might be beneficial
to consider/adopt a sex quota system in some ILO-supported
training programmes to increase women's participation.

Many types of vehicles have been used in mobile voca-
tional training programmes, e.g. bicycles, jeeps, trucks,
trains, aeroplanes, mules, canoes, rowing-boats and
ships.

One of the more interesting mobile training programmes in
the survey is run by the Young Men's Christian Association,
a voluntary organization, in Fiji (p 29). This small-scale,
popular, efficient and fairly low-cost programme at the
grass-root level may be contrasted to SENAR, the mastodon
Brazilian programme (p 43).

Most likely there are many small-scale and efficient mobile
training programmes adapted to local needs and realities,
at the grass-root level. It is not surprising that reports
from many of these down-to-earth programmes never reach in-
ternational headquarters in Geneva, Washington, New York, etc
In his excellent book "The African Artisan", Kenneth King describes how voluntary organizations have played an important role in the development of vocational training in Kenya through innovative projects, e.g., Village Polytechnics. King writes:

"... the Village Polytechnic architects were anxious to avoid institutionalization. They wanted small, flexible, intensely local structures, which could reflect a particular community's needs at the post-primary skill level. They were adamant that provision should not mean the same four old courses that every vocational institution felt it necessary to offer: carpentry, masonry, electrical work and motor vehicle repair. Instead, ideally, the polytechnic should respond to local needs whatever they were, and also take the lead in offering skills that might make a difference to the quality of life in the countryside. It should not, its designers felt, encourage students to aspire to wage earning positions in towns, but prepare them individually or communally to exploit the income opportunities of rural areas. Finally, it should be low cost, non-boarding and steer clear of certification."

It is probably correct to conclude that the ILO-supported mobile vocational training programmes never have been very successful. Still the expertise in ILO and I believe in the idea. It is my hope that this survey of mobile vocational training units in developing countries will enable the readers to learn from the mistakes as well as the successes of others.
Hardwon experience and (sociological and other) research have convincingly demonstrated the inadequacy of a uni-dimensional approach to problem identification. The dimension in which project identification is often pursued is the technical dimension. Hence this is called the technocratic approach. In addition to a technical dimension, the problems in the rural areas have economic, social and political dimensions. This does not mean that there is one set of technical and economic problems, another set of social problems and yet another set of political problems. The point is that one and the same problem generally has all these dimensions simultaneously. To describe a 'technical problem' is then to describe only one dimension of the problem. The activities which are proposed on the basis of such a uni-dimensional analysis will refer to only one aspect of the problem. The failure to recognize and to address other than the technical dimension of a problem often results in project failure.


It is my recommendation that the compilation below of administrative, economic, pedagogic, political, social and technical prerequisites for successful mobile vocational training programmes be carefully studied and considered by planners and implementors of such programmes. The compilation is based on the achievements, shortcomings and/or failures of the various programmes presented in this survey and on my own field experience from Africa, Asia and Latin America.

On the dotted lines, the readers may fill in additional factors of relevance in the local context.

Do not repeat the same mistakes too often.

Zbigniew Janczewski, Social Scientist, in an interview in 1981
SIDA

1 Administrative feasibility
- Which governmental and/or non-governmental structures should/could/will (not) support the programme?
- Integration/cooperation with training institution? Backstopping?
- Organizational structure?
- Decentralization?
- Small scale operations desirable?
- Clearly defined objectives?
- Clear work programme?
- Clear job descriptions for the staff?
- Sufficient staff?
- .......

2 Economic feasibility
- Sufficient budget for the programme?
- Will the training lead to self-employment and/or economic benefits in other ways?
- Decent earnings/economic benefits?
- Production for own consumption or for sale?
- Low-cost raw materials, tools, etc?
- Need/facilities for credits for starting capital, tools, raw materials, etc?
- Stable market? Competition?
- Marketing? Transports?
- Allowances and/or other benefits for field staff? For trainees?
- .......

3 Pedagogic feasibility
- Instructor training?
- Who will/will not be accepted as instructors by the trainees?
- Maximum of practical exercises? Minimum of theoretical exercises?
- How will the training fit in with other learning/previous skills in the community?
- Training in skills/tasks rather than occupations?
- Problem-solving methods?
- Instructors' and trainees' participation in identification of training needs?
- Instructional materials? (The less sophisticated, the better, as a rule)
- Small groups? (The smaller the better, as a rule)
- Short-term courses? (The shorter the better, if well planned)
- Continuous evaluation?
- Follow-up (IMPORTANT!)
- ........

4 Political feasibility

- Is there a political will to implement the programme?
- Which governmental and/or non-governmental structures should/could/will (not) support the programme?
- ........

5 Social feasibility

- What kinds of activities and work organization are encouraged alternatively prohibited by the social system?
- What women can be reached? (Quota?)
- What men can be reached? (Quota?)
- Who will be accepted as instructor? Training? Social origin? Age? Sex? etc
- Who are the planners? National and cultural background? Education? Age? Sex? etc
- What season(s) of the year alternatively time of the week/day are/are not suitable for training?
- Effects on health?
- Effects on environment?
- Meals? Rest breaks?
- Child care facilities?
- Accomodation for the instructor? With village family?
- For how long will the instructor accept being away from home?
- ........
Technical feasibility

- Institutional backstopping?
- What skills are available/required in the community?
  See Appendix 3 "Occupational Training Needs Assessment"
- Are local resources utilized: raw materials, tools, knowledgeable craftsmen, experience/aspirations of villagers, etc?
- Appropriate (!) technology?
- Labour intensive production?
- Fairly simple production?
- Quality control?
- Is it possible to give the training in short-term courses?
  In a few days or a few weeks, at most?
- Practical, not theoretical, training?
- Training adapted to local needs, leading to increased incomes and/or other benefits?
- Possibilities to get/buy tools and raw materials after training?
- Facilities (space) for training? For storage?
- Transports? Adaptation to local realities?
- Spare parts? Maintenance?
- ........
DEFINITIONS OF "MOBILE VOCATIONAL TRAINING UNIT"

There are many definitions of "mobile vocational training unit". One of the more relevant definitions is provided by Dr Espinoza, ILO, Geneva (1980):

"... a mobile vocational training course comprising a qualified instructor, an organized and relevant content (syllabus), instructional aids and the necessary equipment, tools and materials for training 16 to 20 rural participants in skills needed to enter and/or successfully sustain self or wage employment in a rural gainful activity..."

Dr Espinoza's definition is quite long. He does not write that the training should take place in the home area of the trainees and on their conditions. The group size recommended might seem a bit large. Since women have been participating in ILO-supported mobile training programmes only to a very limited extent so far, it might have been appropriate to write "male and female participants". With these modifications, Dr Espinoza's definition is well worth remembering, especially his emphasis on "self or wage employment in a rural gainful activity".

Definition by Mr Skretvedt, ILO, Geneva (1980) in his draft "Mobile Units for Skill Training - Rural Areas - A Guide for Effective Use in Developing Countries":

"Mobile training is a direct effort to teach people skills in their own environment using instructors or materials that can be moved from place to place. It differs from institute or centre training in that training is brought to trainees rather than trainees being brought to a training facility. Mobile training does not compete with, nor is it a substitute for, training offered at centres. It is rather a complementary effort which can be used to extend training to communities and worksites."

The following chart on mobile and local community origin combination possibilities (7) in mobile training programmes is also from Mr Skredvedt's draft report:

<table>
<thead>
<tr>
<th>Trainees</th>
<th>Instructors</th>
<th>Materials</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC</td>
<td>LC</td>
<td>M</td>
<td>LC</td>
</tr>
<tr>
<td>LC</td>
<td>LC</td>
<td>LC</td>
<td>M</td>
</tr>
<tr>
<td>LC</td>
<td>LC</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>LC</td>
<td>M</td>
<td>LC</td>
<td>LC</td>
</tr>
<tr>
<td>LC</td>
<td>M</td>
<td>M</td>
<td>LC</td>
</tr>
<tr>
<td>LC</td>
<td>M</td>
<td>LC</td>
<td>M</td>
</tr>
<tr>
<td>LC</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
</tbody>
</table>

LC = Local community origin;  M = Mobile origin

It is emphasized that maximum use should be made of local resources.
Definition by Cinterfor, the Latin American research and documentation centre for vocational training, in Project 090 Training Action with Mobile Units (1975):

"Mobile training is the vocational training mode enabling to convey manpower preparation as near as possible to the trainee’s place of work or residence, in an intensive and systematic fashion".

Åke Dahl (1980) differentiates between pure mobile training activities and in-plant training programmes. His point is that mobile training should be offered to people in the informal sector, i.e. people who are self-employed or intend to be so.

The reasons why the Mobile Training Scheme, Bangladesh (p 25) and the Mobile Centres, Sri Lanka (p 37) are called "mobile" may be more difficult to grasp.
PRESENTATION

OF

MOBILE VOCATIONAL TRAINING UNITS
AFRICA

GHANA

Secretarial training

Several years ago, there was an ILO-supported mobile secretarial training programme in Ghana. Land Rovers with office equipment were used.

Source: Vocational Training Branch, ILO, Geneva, 1980

IVORY COAST

Cooperative training

During the second half of the 1970's, ILO supported a cooperative programme with mobile training units in the Ivory Coast.

At ILO, Geneva, it was regretted that the project with mobile training units in the Ivory Coast had become too "commercial". National politicians and French business interests, including a former ILO expert, were making great profits on this project. The situation was characterized as "embarrassing for ILO". It was emphasized that mobile training units should be equipped and installed in a simple and practical way, if possible at the national level rather than being purchased prefabricated with sophisticated equipment at a high cost from Europe. It was further stressed that mobile training units should be closely attached to a training institution and not operate in a vacuum.

Source: Vocational Training Branch, ILO, Geneva, 1980

KENYA

The informal sector in Kenya is described in an interesting and knowledgeable way in "The African Artisan" by Kenneth King. Although the author does not describe any official programmes with mobile units in Kenya, his book is highly recommended for planners of mobile and/or other vocational training programmes in Tanzania and elsewhere in Africa. (See also p.

SUDAN

NVTS - National Vocational Training Scheme (SUD/72/020)

Background

In the late 1970's, it was estimated that the majority of the operators and mechanics responsible for the Sudanese fleet of some 15,000 tractors and 550 self-propelled combines had never received any kind of job training. Furthermore, most of them had no tools to do even minimum maintenance. According to ILO, the majority of tractors
On the job training of operators and mechanics in Sudan

used in developing countries cannot be expected to run beyond 2,000 hours, while their useful life would be at least 10,000 hours with average care and maintenance.

A main training effort at the National Vocational Training Scheme had been a three-year training course for mechanics with 15 graduates per year. However, many of them left Sudan for well-paid employment in neighbouring Arab countries. In order to find a solution to the severe shortage of mechanics, a mobile vocational training programme was started in 1979.

Objectives
To give short-term training to farm tractor operators in proper driving techniques and maintenance of tractors and related agricultural machinery. Later operators of diesel-driven irrigation pumps were included in the mobile training programme.

Donors
UNDP/ILO, UNIDO, Federal Republic of Germany

Structure/size
The mobile training programme closely linked to the NVTS Centre. Training of 200-240 operators planned for 1979 (to be compared to 15 mechanics graduating from the Centre per year).

Trainees
See Objectives above. The trainees got a daily allowance. Maximum 20 trainees per course.

Staff
One ILO expert and four instructors, all male, working in two teams alternating between the Centre and field service. One team stayed at the Centre for a week or two, while the
other went to the surrounding agricultural schemes which had requested assistance. The instructors were paid overtime and travel allowances.

Courses
Only short courses of 1-3 weeks. Practical, not theoretical, training based on local needs. Extensive use of visual aids and problem-solving methods. The instructors were free to adapt the training to local needs.

Transport/facilities
Land Rover. Training in the fields and/or in existing workshops.

Evaluation
No information

Sources: "Rural Vocational Skill Training: Mobile Units", ILO, Geneva, 1979

Basic training for traditional birth attendants in Sudan

Traditional Birth Attendant Training

The Swedish Pentecostal International Relief Development Agency (PMU) is operating a mobile training programme for traditional birth attendants in rural areas. On completion of the short-term practical training course, the participants receive a basic tool kit. The effects of the training are reported to have been very positive, e.g. the percentage of babies with tetanus has decreased remarkably in villages where the traditional birth attendants have been trained.

Source: Swedish Pentecostal International Relief Development Agency, Stockholm, 1982
In Sudanese villages where the traditional birth attendants have been trained, there has been a remarkable improvement of infant health.
TANZANIA

Forest Worker Training (URT/70/005)

Background
This nation-wide project for training of forest workers and their supervisors was in operation from 1971 to 1975. During the first three years, a mobile on-the-spot training unit gave courses at 19 forest projects and production units. During the fourth year, the objectives of the programme were modified to place emphasis on training assistant foresters as instructors. The UNDP contribution was US $135,000. The Government of Tanzania committed itself to a contribution of 110,000 shillings.

Objectives
- to give training in tool maintenance and working techniques
- to introduce safety precautions, health rules and new tools
- to simplify work and increase efficiency
- to provide of basic hand and maintenance tools
- to offer direct and continuous follow-up of training

Donors
UNDP/ILO

Structure/size
The project was run by the Ministry of Natural Resources and Tourism and ILO. The mobile unit was not attached to a training institution. During three years, 420 persons were trained at 19 forest projects and production units.

Trainees
420 persons in total, all men. The average age was 28 years. The average period in forest work before training was five years. The main categories were loggers, charcoal burners, head men, field assistants, forest university students and nursery men.

Staff
One Norwegian ILO-expert (man) with one counterpart. During the three-year period a total of four persons, all male assistant foresters, served successively as counterparts. One of them left for a six-month fellowship in the United Kingdom, one was transferred and two resigned for further studies in Tanzania.

Courses
Short courses in e.g. tool maintenance, logging, charcoal making and safety precautions on the work site. The shortest course, "Food, drink, rest, safety and health", took two hours; the longest, "Charcoal making", one week. The programme of work is described in detail in "Project Findings and Recommendations" (see below). Practical exercises in the field and tool maintenance were the main activities. The mobile training unit stayed for about a month at a time on each site. The delayed arrival of necessary tools restricted on-the-spot training to sites where some tools were already available.

The trainees could choose to participate in one or several courses. The training as well as lunch was provided free of charge.

Transport/Facilities
A ten-seater Land Rover. The ILO-expert lived in a double-berth caravan. The courses were given in the forest and in workshops belonging to the forest projects.
Log measuring in Arusha, Tanzania

Evaluation
According to the "Project Findings and Recommendations" (see below) measurable results of the training were, in most places, evident. For example, production increased by 25 per cent on an average in logging operations, in one logging unit by 400 per cent. In one charcoal production unit, the output increased by 100 per cent after training. These good results were attributed to improved planning of operations, improved tool maintenance and the introduction of a food and rest break.

Comments
Mr Strehlke, Rural Vocational Training, ILO, Geneva, was connected to the project in the early 1970's. In his opinion, the experiment with the mobile training unit was, on the whole, not very successful. The reasons for this, according to Mr Strehlke, were:

- The Tanzanian mobile training unit worked in isolation, without institutional backstopping. Originally, a regional (Tanzania, Kenya, Uganda and possibly Zambia and Malawi) programme with mobile training units attached to a common forest research institute had been planned. The main functions of this proposed regional programme would have been training of instructors, production of teaching aids and follow-up activities. For political and other reasons the programme never materialized.

- Too many counterparts serving for too short a period. They found it too uncomfortable during the long periods in the field and preferred staying at home.
In spite of the limited success of the mobile unit in the Forest Worker Training project, Mr Strehlke was, in principle, in favour of mobile training units in forestry. He pointed out that the results in Norway, Sweden and Great Britain have been very successful, and gave the following reasons:

- short courses, maximum a few days, during a season when the forest workers/owners have time available for training
- well planned and prepared training
- well defined and limited subject areas
- practical and informal, not theoretical, training
- the instructors themselves forest workers/owners, not university graduates
- small groups, preferably not more than four participants per instructor

Concerning the Tanzanian mobile training programme, it may be noted that all instructors and all trainees were men in spite of the fact that a considerable part of the forest work, especially planting and nursing, in the area is traditionally performed by women. See Food for Thought, page 1. If Dr Umali had posed a fourth question: "Who loses?", the answer in this case would have been: "The women".

Perhaps it would be beneficial to consider/adopt a sex quota system in some ILO-supported training programmes to increase women's participation?

Sources: "Forest Worker Training URT/70/005, Project Findings and Recommendations", ILO, Geneva, 1975

Discussions with Mr Strehlke, Rural Vocational Training, ILO, Geneva, 1980

LIDA - Livestock Development Authority

During the 1970's, the LIDA Project had a mobile workshop consisting of a Mercedes-Benz LA 911 truck chassis with a container workshop sized 4.5 m x 2.5 m. The cost (1976) of the complete mobile unit with equipment was F 100,000 (appr US $ 40,000). The unit with installations is described in A J Duermeijer's "Instruction with the Aid of Mobile Units" (1976). However, it is not mentioned in this technical report to what extent the unit was actually used for training. Administrative, economic, social and pedagogical aspects are not discussed at all.

NVTP - National Vocational Training Programme (URT/67/520)

Background

In 1972-73, NVTP tried to carry out a training programme with mobile units.

Objectives

- to offer instructor training up-country
- to give skill training in rural development
- to support centres with limited facilities
- to perform trade testing
According to the ILO report (1973; see below) the unit consisted of one five-ton chassis with two interchangeable container bodies fitted and equipped for instruction in two trade areas: building/electrical and automotive/mechanical. According to a SIDA consultant's draft memorandum (1979; see below), the programme had two Ford lorries with one container each.

Instructors were locally employed supervisors, a Canadian expert and a Dutch volunteer.

According to unanimous information, the mobile training experiment turned out to be an almost complete failure.

At ILO in Geneva, inadequate planning was stated as one of the prime reasons for the failure. The mobile units should have had closer links to a vocational training institution for syllabi, spare parts and maintenance of equipment.

According to the SIDA consultant's draft memorandum, the major problems with the mobile units, until they became completely stationary after a few months, were:

**Trade testing on a tractor assembly, National Vocational Training Programme, Tanzania**
- insufficient and inadequate planning
- unsuitable vehicles; the Ford lorries were too heavy and unwieldy for the rural roads, especially during the rainy season when four-wheel-drive vehicles would have been needed
- tools and equipment were improperly installed and stored in the containers: "After only a few kilometres of driving everything was in a complete mess, sometimes sensitive items were broken before reaching the destination"
- 25 units of each tool were too many; tools "disappeared" easily
- many participants found the three-month-courses too long
- lack of social consideration: the instructors did not like to be away from home for as long a period as three months.

After the first three-month training course, the instructors reported to the National Vocational Training Centre in Dar es Salaam. Thereafter the "mobile" units became stationary. The instructors refused to be away from home for another three months. However, the lorries have later been used for regular transports and the containers have been utilized as store rooms.

Concerning women's participation it may be noted that all international experts, all Tanzanian instructors and all trainees attached to the project were men.


Eriksson, Olle: "Report - National Vocational Training Programme: Mobile Training Unit, Pilot Programme, draft memorandum, 1979

Discussions with staff at the Vocational Training Branch, ILO, Geneva, 1980
ASIA AND THE PACIFIC

AFGHANISTAN

Training of Traditional Birth Attendants (Dais)

The health situation in isolated, rural areas of Afghanistan ranks among the worst in the world. According to the Afghan Ministry of Public Health, one third of all children never reach the age of 5. The mortality rate among women of childbearing age is high: 118 per 1,000 pregnancies. The vast majority of Afghan women never receive medical attention by trained personnel.

Given the need to cut the rate of death and illnesses among women and children and the almost total lack of trained female health personnel, the Ministry of Public Health started a mobile training programme with practical exercises for
dais (traditional birth attendants) in hygienic prenatal care and delivery, postpartum and postnatal care, detection and treatment of minor childhood illnesses and referral of serious cases to medical services. The dais, for social reasons women, were all experienced and highly respected, but they lacked basic training and equipment. They were all illiterate. The mobile training team consisted of a nurse midwife (one of the few trained Afghan midwives), two female health workers, a trained dai and, in many cases, a male sanitarian. The training was normally carried out in a rented house at a short distance from the village(s) concerned to respect the privacy of the women, some of whom had never left the village before. The houses rented were surrounded by high walls and men were not admitted. The courses lasted for a few weeks. By living and working together the trainers and trainees developed a better understanding for each other. On completion of the course, the dais received a basic tool kit.

The dai programme was supported by the Management Sciences for Health (USA), WHO, UNFPA and UNICEF. At the start in 1977, there was a plan to train 7,500 dais by 1983. By the end of 1978, 700 dais had been trained. The programme, training women to care for women, was well adapted to local needs and very much appreciated by village women. Due to the war, the programme had to be stopped.

The United Nations has supported many similar programmes in other countries, e.g. Pakistan.

Sources: Mohseny, M G: "Afghanistan: Health Care Against All Odds", Salubritas, April 1981

The author
BANGLADESH

Mobile Training Scheme in Bangladesh

This project for "landlocked and least developed countries of the ESCAP region", e.g. Bangladesh, Nepal and Afghanistan, was financed by ESCAP/UNOTC (Economic and Social Commission for Asia and the Pacific/United Nations Office of Technical Cooperation). The objective was to "train trainers" in areas such as social welfare, community development, local self-government, cooperation, youth development and women's programmes.

In a long ESCAP report (1978), the Team Leader of the Mobile Training Scheme describes a training programme in Bangladesh in 1977. 34 persons, 26 men and 8 women, the majority of whom were university graduates, participated in the theoretical six-month course. There is no serious evaluation of the programme in the report.

Moreover, the ESCAP report does not explain why this traditional training programme was called "mobile". Was it perhaps because the Team Leader occasionally travelled from the ESCAP Headquarters in Bangkok to Dacca?

Source: Cosio, M P: "The Mobile Training Scheme in Bangladesh", ESCAP, Bangkok, 1978

Training of Ship Crews

In 1978, ILO provided a complete training ship made in Japan. Deck-crews and navigators were to be trained for work on river boats.

Source: Vocational Training Branch, ILO, Geneva, 1980

BURMA

Industrial Training

Some 20 years ago, ILO supported a mobile industrial training programme in Burma. The training took place in two railway waggons.

Source: Vocational Training Branch, ILO, Geneva, 1980

FIJI

Multi-Purpose Rural Training (FIJ/78/004)

Background

The rural training programmes on the two project islands had many problems: financial constraints, lack of specific and clearly defined objectives, lack of trained and
experienced instructors, communication and transportation difficulties, and lack of coordination between different organizations and ministries with training programmes. A mobile training unit was provided by ILO in 1980.

**Objective**

To assist with the development of a coordinated programme of village level training through the operation of a mobile training unit.

**Donors**

UNDP/ILO

**Structure/size**

Cooperation between several Ministries and Departments, e.g. Agriculture, Animal Husbandry, Education, Forestry, Fisheries, Health, Cooperatives, Rural Development and Fijian Affairs, and non-governmental agencies, e.g. YMCA, Fiji Sugar Corporation and local churches, in planning a multi-purpose rural training programme for two islands. The mobile unit was to be based at the Nasoso Rural Training Centre on one of the islands. During the preparatory phase (six months), thousands of persons participated in training courses and film shows.

**Trainees**

Villagers and future instructors

**Staff**

An Australian ILO consultant during the preparatory phase. The mobile unit was run by a full-time driver/operator. Local extension officers from various departments were expected to serve as instructors on an ad hoc basis. For certain courses specialists would be hired.

**Courses**

Short-term courses lasting 1/2 - 5 days for villagers in agriculture, forestry, health and sanitation, fisheries, taxation, book-keeping, etc. During the preparatory phase, a five day in-service training course was run for the extension officers who would be utilizing the mobile unit in the future.

According to the project report (see below), the training was to be informal with demonstrations and group discussions.

**Transport/Facilities**

Mazda E300 Model TA3H1-W two-ton truck with canopy and imported equipment locally installed: a Bell & Howell 16 mm film projector with 1(!) spare projection lamp and 1(!) spare exciter lamp, an Elmo slide projector, a screen, a spirit duplicator, a portable typewriter, a cassette tape recorder, a Honda portable generator, a blackboard, a tent (5.5 m x 5.5 m), 6(!) folding tables, 21 (!) folding chairs, a fire extinguisher, various tools etc. Detailed technical specifications with photographs and drawings are given in the final report (see below).

The total cost in 1980 for the mobile unit was US $ 17,000. This sum included the vehicle (US $ 11,000) and equipment (US $ 6,000), but excluded the cost of the consultant who did most of the installations.

The majority of the courses would be given in villages, but courses longer than five days would be held at the Nasoso Rural Training Centre.
The Nasoso Mobile Training Unit, Fiji

Equipment from the mobile training unit being transferred by boat to coastal areas inaccessible by road

Interior of the mobile training unit showing equipment secured in place
Interior design of the Nasoso Mobile Training Unit
The mobile unit could not reach all villages concerned. In some cases, the equipment of the unit had to be loaded onto small boats for further transport to coastal villages.

For economic, administrative, technical and other reasons, the installation of the mobile unit and the recruitment of the driver/operator were delayed. Due to a record cane harvest, the islanders could participate in the training courses on a limited scale only during the first ten months. When the sugar had been harvested, the training activities became more popular. However, the training objectives were not clearly defined and the budget for the mobile unit was insufficient. The final report does not show how (if) the activities had been coordinated and planned for the future.

In his final report, the consultant warned against the mobile unit being used simply as a mobile cinema for entertainment films rather than educational films. A classic dilemma. How many educational films in the local language and of interest to the islanders were available? Probably none. How many would be produced in the next few years? Probably none. How long would the one and only spare lamp last? What happens afterwards? Who decides? Who participates? Who benefits?


YMCA Mobile Training Programmes

Background
In 1972, the YMCA (Young Men's Christian Association) on Fiji started a mobile training programme in carpentry for urban youth. Since 1974, vocational training has been offered to rural youth. In 1979, the YMCA was operating five vocational training programmes with mobile units in rural areas. The following description is based on documents from 1979 and 1980.

Objectives
- to provide instruction in skills needed for employment or self-employment
- to provide the trainees with the necessary tools and equipment
- to provide technical knowledge through problem-solving methods in the trainee's home environment

Donors
YMCA, USAID

In 1979, 78 per cent of the operational costs were covered by foreign grants, 10 per cent by a Fiji Government grant and 12 per cent by fees paid by the trainees (usually $1 per week per trainee or $10 per week per village).

Structure/size
YMCA clubs in more than 80 villages. In 1979, there were some 5,000 YMCA members.
Trainees

Preference was given to YMCA members, but non-members were also welcome.

Staff

Six instructors, all of whom were skilled tradesmen/craftsmen. In addition, an American Peace Corps Volunteer was employed in the programme. The instructors lived in the homes of the trainees in the village where they were giving the training.

Courses

In 1979, there were five mobile training programmes all of which put emphasis on practical work in a village setting and problem-solving methods:


   a) General Carpentry, usually ten weeks: basic building construction, block laying, plastering, painting and simple furniture making

   b) Building Construction, usually four weeks, similar to General Carpentry, but undertaken in villages as "on-the-job" training in the construction of churches, community centres, schools, etc

   c) Punt Construction, usually two weeks, in villages where the participants wished to build a punt (type of boat) for their own use or hire, or wished to commence a punt construction and repair enterprise

   For these three types of training, the participants provided all the materials needed and paid a nominal weekly fee (US $ 2.30). The average number of trainees per course was 5-6.

2. Wood Carving Programme (since 1975; total cost for salary, travel and tools in 1979: US $ 2,600).

   Two-week courses in how to carve articles such as a 'tanoa' (traditional kava drinking bowl) and a 'lali' (a hollowed log drum) for village use. Carving of tourist items was discontinued at an early stage due to marketing/quality problems. Each course was attended by 6-10 participants. The villagers supplied timber and tools and paid a nominal fee for the training. The instructor was a skilled village craftsman.

3. Outboard Motor Maintenance and Repair Programme (since 1974; estimated cost in 1978: US $ 3,250)

   One of the most successful programmes. In 1978, seven courses of 1-2 weeks' duration were held. Each course was attended by 5-10 trainees, most of whom were outboard motor operators who brought their own motors to the training sessions. On completion of the course, the trainees were able to purchase a basic tool kit at a subsidized price.
A similar mobile programme was started in the New Hebrides in 1977 with an American Peace Corps Volunteer as instructor. After his departure, a UN Volunteer (NHE/78/003) was to be recruited and a local counterpart trained.


In 1978, 14 courses of approximately two weeks' duration were held; 8-10 participants per course. As training was given to a group rather than individuals, the village paid a nominal weekly fee. The instructor was an American Peace Corps Volunteer (provided "free" by USAID).

The objectives of the training were to provide skills in the operation and maintenance of a small chain saw and mill unit for the production of sawn timber for village housing and furniture making projects. By using their own trees, the villagers could get quality sawn timber at 10-20 per cent of the commercial rates. Rural Development Funds administered by the Fiji Government were made available to village groups to subsidize the purchase of saw mill units.

5. Sewing-Machine Maintenance and Repair Programme (started in 1979; no data about costs)

One-week courses being attended by 9-10 women, usually representatives of Women's Clubs. Some sewing skills were also taught.

A similar mobile programme (SOI/78/007) for sewing-machine maintenance and repair was planned for the Solomon Islands.

The YMCA mobile training programmes seem to have responded well to locally felt needs, appear to have been popular and fairly low-cost. Probably a non-governmental organization like the YMCA, with a network of popular village clubs, is particularly well suited for running locally adapted and small-scale mobile training programmes.

The instructors were experienced craftsmen (women?) and villagers, not university graduates as in several programmes described elsewhere in this survey. They lived in the homes of the villagers they trained and got to know their needs and aspirations on which the training programmes were based. In spite of the fact that the trainees had to pay a course fee, the participation was high. This indicates that they considered the training worth-while. On completion of a course, the trainees were able to buy tools and equipment at subsidized prices.

The following excerpt is from a memorandum (1979) by Mr Bamford, ILU Regional Adviser, Rural Vocational Training in the South Pacific:
"Although many programmes are in their infancy there is sufficient evidence to show that the mobile approach has considerable potential in the South Pacific. In a region of small isolated island communities between which travel is difficult and costly, it is often more economical and effective to take training to the people than vice versa.

The most effective training will be given where programmes are integrated with the activities of existing organizations with close links with rural communities. These will be Government Agencies with extension activities at village level and Voluntary Organizations, particularly church groups or related bodies such as YMCA and YWCA.

Itinerant instructors in many cases are better provided through Voluntary Organizations than by Governments. This is because the former have much greater flexibility of employment and operation. However, Government financial support is necessary but not to such an extent that it obviates the need for contributions from the organizations and the village people themselves".

Sources: Bamford G N: "Mobile Training Units", ILO memorandum, Fiji, 1979
Flikkema W: "Young Men's Christian Association" Fiji, 1980

INDONESIA

Data Gathering and Model Building re Mobile Training Units (MTUs) for the Fourth Educational Project/Vocational Training

One of the key objectives of the Fourth Educational Project/Vocational Training, supported by the World Bank and ILO, was the setting up of 25 mobile vocational training units, 20 for rural areas and five for urban areas, "to provide disadvantaged rural and urban groups with skills that would enable them to earn additional incomes or to improve their livelihoods."

In 1980, it was proposed that before ordering the 25 units, a comparative analysis of existing mobile vocational training units in Indonesia and other countries in Southeast Asia should be made. Data concerning vehicles, equipment, training materials, selection/training of instructors, budget, organization and administration should be gathered. This proposed "Data Gathering and Model Building" project was to be implemented in 1980/81. However, for financial and other reasons it was postponed to a later date.

In addition to the 25 mobile training units (two of which were to be boats) mentioned above, the World Bank was considering 50 more units for Indonesia. In 1980, the Asian Development Bank and the Ministry of Manpower and Transmigration procured 16 Land Rover mobile training units. These vehicles, however, were mostly used for regular transport. The Ministries of Education, Agriculture and Health also had
Project which are big in financial terms, which are technically and administratively complex and which embrace many components are not conducive to participation. Decision-making as well as implementation responsibility tends to be pushed up to central levels in the bureaucracy. The villagers become onlookers.

Lars-Erik Birgegård in "Manual for the Analysis of Rural Underdevelopment", Uppsala, 1980
mobile vocational training units. The need for a comprehensive and comparative analysis of the utilization/usefulness of the mobile training units remains.

Source: "Data-Gathering and Model Building re Mobile Training Units (MTUs)", project proposal by Sven Brandt, World Bank/ILO, Jakarta, 1980

Discussions with Sven Brandt, 1982

Development Support Communication (DSC)

In the late 1960's, the Development Support Communication Service (DSCS), financed by UNDP and UNICEF, launched the idea, well prepared in a project proposal, of a "development support communication" training and production ship to serve the many islands of Indonesia. Short-term training courses were to be given in production of locally adapted training materials, photography, simple printing techniques, tape recording, production of local radio programmes, etc. The plan was to purchase an old ship from Norway at a low cost. For different reasons, this proposed project never materialized.

Source: The author

Non-Agricultural Rural Vocational Training Programme

According to Dr Espinoza, ILO, Geneva, the World Bank and ILO were to support a major vocational training programme in Indonesia starting in 1980 (Cp. the Data Gathering project above). This programme was to have at least six mobile units.

In Dr Espinosa's report "Non-Agricultural Rural Vocational Training Requirements" (1980), there is a detailed proposal for the improvement of the rural vocational training programme.

Rural Mobile Vocational Training Programme

Background
The Indonesian vocational training programme with mobile units in rural areas started already in the 1950's. The training programme then, and still in 1980, was based on the syllabi of the regular (urban) vocational schools and not adapted to the needs of the rural population. The courses had a strong industrial bias.

Objective
To give rural youth the same opportunities to vocational training as urban youth

Donors
No data in the documents listed below

Structure/size
A network of 53 units operating within the 27 provinces. Each province had at least one unit (1980) within this particular programme. Some 7,000 trainees in 1979. The rural population of Indonesia was 112 million that year.
Fishing village near Surabaya, Java
Trainees
Minimum six years of basic schooling. Age: 15-20 years (18-35 according to the ILO report Vocational Preparation of Rural Youth for Development, 1980). The participants had to be unemployed. In 1979, 10 per cent of the 7,000 participants were women. 16-20 trainees per course.

Staff
Extreme shortage of qualified and trained personnel. No training programme for instructors.

Courses
Traditional courses, copied from the urban vocational schools. A course consisted of 400 45-minute lessons. The participants had limited possibilities to influence the training contents and methods.

Transport/facilities
Truck to transport equipment, tools and materials

Comments
According to Dr Espinoza's report, the programme suffered from major deficiencies:
- the traditional courses, not revised for eight years, did not correspond to the actual needs of rural people
- the number of professional staff, instructors and administrators, was "extremely insufficient"
- unsuitable /insufficient equipment, not adapted to local needs; poor maintenance and storage
- total lack of educational aids
- almost total isolation of the training, no institutional/technical backstopping

Dr Espinoza summarizes the situation in the following way: "Due to the above constraints and, of course, the apparent limited availability of employment in rural areas, the impact of the mobile training unit programme appears to be also limited, especially in terms of preparing people for self or wage employment."

Sources:

Discussions with Dr Espinoza, Rural Vocational Training, ILO, Geneva, 1980

"Vocational Preparation of Rural Youth for Development", ILO, Geneva, 1980
IRAN

Rural Vocational Training

Between 1972 and 1977, some 150 mobile units were used in a massive short-term vocational training programme in rural areas in Iran. The programme was supported by the United States' Department of Labour.

Source: SDC International Search Service.

School barges

Vocational training in maintenance and repairs of ships have been given on school barges in the Arabian/Persian Gulf.

Source: Vocational Training Branch, ILO, Geneva, 1980

SRI LANKA

Rope Production

In 1980, the Department of Small Industries (DSI) and the Women's Bureau, supported by UNICEF, started short-term training courses (four hours per day for two months) in coir-rope production (coir = coconut fibre) for women in the slums of Colombo. The women were paid Rs 5 (app. US $ 0.30) per day during the training.

The DSI provided the instructors, raw materials (coconut fibre), continuous quality control, maintenance of the spinning wheels and a guarantee to buy the coir-ropes produced. UNICEF paid for the spinning wheels, work-tables, shelves, benches and weighing machines. The municipality offered free storage facilities in the slums for the raw materials, the spinning wheels and the ropes. The women worked out-of-doors in the slums with the rope production.

The DSI gave similar short-term courses, primarily for women, in villages along the coasts. The demand for coir ropes was good and the women were guaranteed an income for the finished product.


Vocational Training Programme

Background

Already in the 1950's, ILO supported mobile vocational training units in Sri Lanka. The success of the programme was limited. The heavy vehicles, not suitable for the rural roads, remained stationary most of the time.

The "mobile centre" programme, started by the Department of Labour with ILO support, has been described as follows:
Objective
To give unemployed rural youths vocational training leading to employment or self-employment

Donors
UNDP/IL0

Structure/size
According to the project document (see below): at least two "mobile centres" per electorate. Administration by the District Labour Office. In 1977, 5,344 persons were to get vocational training in 334 "mobile centres", 150 of which were for dressmaking for women.

Trainees
16 trainees per centre. They had to be between 16 and 30 years of age, have a minimum of eight years of schooling (with some exceptions) and be registered as unemployed. The trainees were paid Rs 2 (appr US $ 0.15) per day attended.

Staff
One instructor, one day labourer and one night watchmen per "mobile centre". According to the plans, the instructors were to be trained at the Orugodawatte Vocational Skills Development Project.

Courses
One-year courses (January-December) consisting of 2,000 hours; 80 per cent practice, 20 per cent theory. According to the plans, training was to be given in carpentry, masonry, tailoring (males), dressmaking (females), hairdressing, mat-weaving, blacksmithery, non-ferrous moulding, shoemaking, batik, mask-making, toy making and lace making. Almost half of the courses were to be in dressmaking (see Comments below). The programme was totally centralized. Possibilities for adaption to local needs?

Transport/facilities
The definition of "mobile centres" given in the project document: "These centres are mobile to the extent that the equipment and furniture are shifted to suitable rented buildings (usually Community Centres, houses, etc) from one village to another". The shifting could take place once a year.

Comments
In 1978 (77?), Malsiri Dias, a respected social scientist of the Sri Lanka Federation of University Women, made an evaluation of the women's training within the programme, i.e. the dressmaking courses, supposedly given at 150 centres. Her thorough report is revealing and well worth reading. What she describes is a sad story. In the majority of cases, budget and/or staff and/or buildings and/or equipment and/or materials and/or trainees were missing. In many villages, the "mobile centres" existed only in the documents, not in reality.

Sources: "The Vocational Training Programme of the Department of Labour", Colombo, 1976
Malsiri Dias' evaluation of Women's Centres, Colombo, 1978 (77?)
The author
THAILAND

**Industrial Trades Training**

USAID donated a number of mobile units to this programme run by the Ministry of Education in Thailand. The programme objective was to give industrial training to people in rural areas. However, the planning and the organizational set-up were inadequate, and the "mobile" units soon became stationary in the cities. There was also a lack of instructors willing to live and work in rural areas for longer periods of time.

Source: Vocational Training Branch, ILO, Geneva, 1980

**Strengthening of the Programme for the Improvement of Irrigated Agriculture in Northeast Thailand (THA/74/015)**

In the 1970's, UNDP/FAO supplied this project with a fully-equipped Land Rover mobile unit to support agricultural extension work in three irrigation projects in the Northeast. The Development Support Communication Service (DSCS), later Development Training Communication Planning (DTCP), procured, modified and equipped the vehicle and organized and conducted an introductory training course for the staff of the mobile unit. DSCS also produced films, slides and other training materials for the extension work.

A review of the mobile unit operations, held a year and a half after the start of the programme, pointed out several problems:

- job responsibilities were unclearly defined
- extension agents were new and young and many lacked basic extension training (only one field staff remained from the DSCS introductory training course mentioned above)
- the work of the mobile unit was not integrated into existing extension services
- presentation techniques were basically one-way communication exercises which did not involve the farmer audiences
- training materials for use with the mobile unit were not being produced or were inappropriate
- the unit was often taken off its scheduled route and sent on special (non-training) assignments around the country by the central office

Sources: The author

"Improving the Utilization of Mobile Units in Agricultural Extension", DSCS, 1977
Training of Family Planning Staff

During the 1970's, the Thai Ministry of Public Health, in cooperation with UNFPA, DSCS and other organizations, operated several mobile audio-visual units on a nationwide basis to train staff in the national family planning programme.

The Development Support Communication Service (DSCS) installed the audio-visual equipment in the mobile units and produced 16 mm films, video tapes, slides, radio programmes, printed matters, etc. Detailed technical and sociological reports are available from the Development Training Communication Planning (DTCP; formerly DSCS) office in Bangkok.

One of the lessons to be learnt from this project is that sophisticated audio-visual equipment such as video tape-recorders should be avoided in mobile units on poor roads and under difficult climatic conditions.

Source: The author

A mobile vocational training unit installed in an aeroplane has been operated in mountainous areas of West Irian.

Source: Vocational Training Branch, ILO, Geneva, 1980
During the 1970's, Cinterfor (Centro Interamericano de Investigación y Documentación sobre Formación Profesional), the Latin American research and documentation centre for vocational training, published a series of reports called "Training with Mobile Units" (Project 090). The following presentation of mobile vocational training programmes in Latin America is mainly based on these Cinterfor reports. They are written in a diplomatic way and summaries of reviews and evaluations are reported only to a limited extent. However, the impression I get is that many of the programmes seem to have been

- centrally (top-down) planned and directed; people's participation limited
- poorly adapted to the needs of the rural poor and unemployed
- arranged mainly by men, with men, for men; women's participation limited
- relying on expensive, big and heavy vehicles and sophisticated educational technology, none of which suited to the rural realities

On paper, the Brazilian UMIT "school on wheels", page 44, appears to be one of the more interesting programmes, operating at the grass-root level. For comparison, read the memorandum from the UNDP (Brasilia) office about SENAR, the Brazilian mastodon mobile vocational training programme, page 43.

In addition to the mobile training programmes in Latin America described below, it should be mentioned that the following vocational training institutions have had "mobile courses" with itinerant instructors:

**Bolivia:** Rural Vocational Training, supported by ILO and the Swiss Government

**Costa Rica:** INA - El Instituto Nacional de Aprendizaje

**Guatemala:** INTECAP - El Instituto Técnico de Capacitación y Productividad

**Uruguay:** UTU - La Universidad del Trabajo del Uruguay

**BRAZIL**

**SENAC - El Servicio Nacional de Formação Comercial**

Since 1946, SENAC has run mobile units for training in the commerce and services sectors. From 1969 to 1972, training was given on 944 sites in:
- Secretarial/clerical subjects, incl typing
- Salesmanship/marketing
- Hygiene and beauty treatment
- Health services
- Hotel/restaurant work, etc

Source: SENAC is described in a fairly detailed way, but without an evaluation, in the Boletin Cinterfor 26/27 (1973): "Las Unidades Móviles en el Sistema SENAC"

SENAI - El Servicio Nacional de Formación Industrial

SENAI operated 14 mobile units (1975) for training in automotive engineering, diesel engine mechanics, carpentry and dressmaking. For some of the courses, railroad wagons were used. Trainees were persons employed in industries located along the railroad.

Source: Cinterfor Informes: 68, 1976

SENAR - El Servicio Nacional de Formación Profissional Rural (BRA/77/016)

Background

On paper, SENAR, started in 1977, appears to be one of the largest mobile vocational training programmes ever planned for rural areas. There were plans to give vocational training to no less than 250,000 persons during its first year of operation. According to the same plans, SENAR would, at full capacity, have 180 mobile units, trucks and boats, offering training in 54 occupations on a nation-wide basis.

Detailed descriptions of the plans are given in the information booklets published by SENAR and Cinterfor (see below). Data on costs for the mobile units and percentages men/women among instructors and trainees are not given in these publications.

SENAR's slogan was "Aprender a fazer, fazendo" ("Learning through doing").

Donors

UNDP/ILO, World Bank

Evaluation

In May 1979, SENAR carried out an internal evaluation of the various mobile units in the states of Rio Grande do Sul, Santa Catarina and Paraná. The Regional Administrators in charge of the operational aspects of these units, the three Regional Delegates concerned and staff from the SENAR Headquarters in Brasilia, including the Director General, participated in the evaluation. SENAR's major problems, as related by the Regional Administrators, were summarized in the following way in a UNDP memorandum dated May 1979:

- "inability to evaluate the training needs of a specific group;
- inability to evaluate the impact of the training;
- instructors unwilling in certain cases to fully utilize the new techniques offered and included in the mobile units;
- SENAR's lack of veto over the appointment of instructors. In this respect it should be noted that SENAR lacks instructors. Therefore SENAR enters into an agreement with institutions which have an instructional base. The institutions thus assign one of their instructors to go along with the mobile units;

- lack of coordination between the instructors, the institutions and SENAR to the point that SENAR is unable to determine whether a certain type of training was delivered in a particular area;

- lack of coordination (and sometimes interest) between the Regional Administrators appointed by SENAR and the Regional Delegates appointed by the Ministry of Labour and whose functions may not always coincide with the professional rural training aims of SENAR. This lack of coordination influences also the information received in Brasilia at SENAR's Headquarters. For example, an agreement was signed between SENAR and the Fundação do Trabalho de Santa Catarina (FUCAT) for the training of 40,000 rural producers. On paper, FUCAT seemed a well structured institution with good supporting services all over the state and an adequate budget. In practice, however, FUCAT is an institution set up to siphon off federal funds, the result being that less than 15 per cent of the training target to date was met by FUCAT."

The writer of the UNDP memorandum concludes: "As long as SENAR retains its present status, its impact on rural professional training will be negligible. This in fact was recognized by the Director General of SENAR who on various opportunities mentioned that SENAR was not conceived to carry out the type of tasks demanded by the World Bank loan."

As the SENAR programme has continued, it is hoped/presumed that the necessary corrections have been made.

Sources: "BRA/77/016-SENA" UNDP(Brasilia) memorandum dated 7 May 1979

"Unidades Móveis SENAR", Ministério do Trabalho, Brasilia, 1979

"La Capacitación Empresarial Campesina en el Desarrollo Rural", Cinterfor Informes 94, 1979

Vocational Training Branch, ILO, Geneva, 1980

UMIT - Unidade Móvel de Iniciação para o Trabalho

The UMIT programme, characterized as a veritable school on wheels, was started in 1973 in an attempt to bring vocational skills and continuing education to rural families. By 1976, it had been adopted by 46 rural school districts of Rio Grande do Sul.

Each school district had two UMIT teams provided with their own truck and trailer. The truck was equipped with instruc-
tional materials for introductory vocational training in the areas of agriculture, home economics, business and industrial arts. Each truck also had a portable generator for the operation of lathes, saws, projectors, blenders, mixers, tape recorders, etc in areas lacking electricity.

The use of a powerful truck with a four-wheel drive allowed the team to reach isolated schools even in the most difficult weather conditions.

A UMIT team would work for a week in rural communities, visiting two schools, each for a period of three consecutive days. On Sunday afternoon, the team would return to the district office to engage in a week of evaluation and planning, while its counterpart team would leave for training in other rural schools. The schools were visited an average of once a month during the term.

A UMIT team was formed by three persons of rural origin:
- one coordinator who was a credentialed primary school teacher with a degree in domestic science
- two university trained agricultural experts

Before being assigned to UMIT work, these instructors received 1,920 hours of training in both technical and professional areas including teaching methods, group dynamics, rural sociology and community development.

The coordinator was responsible for supervision, overall curriculum planning, and teaching home economics. The others divided the tasks of driving the mobile unit, operating and maintaining the varied equipment and giving instruction in agriculture, business and industrial arts.

The courses were organized both to meet practical needs and to give an introduction to the world of work. Attempts were made to build on skills which the students had already learnt in their homes, e.g., in wood and metalworking classes they started by repairing local furniture and farm tools. Other subjects were nutrition education, maintenance of tractors, bookkeeping, cutting and sewing of clothes, construction of storage facilities, etc.

Both sexes participated in all activities. The UMIT programme was mainly organized for school children, but parents and other adults were also invited to participate, e.g., by assisting in the cultivation of demonstration plots on school land and by giving lessons in the preparation of specialty foods.

The UMIT library and audio-visual facilities were put at the disposal of local teachers and members of the community, for instruction and recreation, in and outside of the school.

By living with different local families, the team members got to know and understand the most pressing needs and aspirations of the people in the area.
The above brief description of UMIT is based on an article (1977; see below) by two professors of education who studied the programme in 1976. They summarized their article by saying that UMIT appeared to be a viable and low-cost alternative to more traditional vocational training. The strength of the UMIT programme, according to them, was:

- building on local needs, skills and knowledge
- residence with villagers allowed the instructors to take advantage of various learning situations; a dialogue was possible
- a few well trained people could offer skills and knowledge to many people dispersed over a wide geographic area

Source: Schütz, P & Chesterfield, R: "Mobile Units for Vocational Training in Rural Brazil", Agricultural Education, July 1977

CHILE

INACAP - Instituto Nacional de Capacitación Profesional

After the land reform in Chile in 1967, INACAP introduced a training programme with mobile units for farmers and fishermen. This programme was supported by the Inter-American Development Bank (IDB). Later three- to four-month courses in construction techniques, electricity/mechanics, sewing etc were offered to people living in rural areas. From 1970, these activities were supported by the World Bank. INACAP produced large quantities of audio-visual aids for the training.

Illustrations of the mobile units are available in A J Duermeijer's "Report, Instruction with the Aid of Mobile Units" (1976).


COLOMBIA

SENA: PPP-R - El Servicio Nacional de Aprendizaje: Promoción Profesional Popular-Rural

Background

In 1967, SENA started a large rural vocational training programme with mobile units, Promoción Profesional Popular-Rural (PPP-R). The PPP-R and its counterpart for urban areas, the Promoción Profesional Popular-Urban (PPP-U), were to contribute to the conversion of Colombia into "the Japan of Latin America". The following brief description of the PPP-R mobile vocational training programme is based on reports regarding the situation during the first half of the 1970's.

Objectives

Improve the skills and increase employment opportunities for underemployed and unemployed workers; slow down the rural-to-urban migration
Donors

Negotiations for financial support were held with inter alia UNDP/IL0 and donor agencies in the United States, Great Britain, the Netherlands and France. The reports listed below do not give details about the final financing of the programme.

Structure/size

Decentralization to 14 regional offices covering all sections of the country. In the reports (see below), it is emphasized that the mobile units had to be attached to and integrated into the activities of the regional vocational training institutions. In 1970, PPP-R had 105,000 trainees including 47,000 migrant labourers, each of whom was given a special 20-hour course in cotton picking.

Trainees

Adults and adolescents, men and women, agricultural and non-agricultural workers, but the major emphasis was on skills useful on the farm. No educational requirements for entry into courses. No data on percentage of women participating.

Staff

More than 300 full-time instructors; all of them had passed a three- to six-month training course at SENA's National Training Centre. Previous knowledge/experience required: secondary technical diploma or teacher's certificate in agriculture, with one year of specialization and two years of practical experience. No data on percentage of women instructors. In the reports, it is pointed out that SENA attached great importance to the selection, recruitment and training of the instructors who were considered the pillars of the programme.

Men's participation in the SENA agricultural mechanization training programme, Colombia
Large variety of course offerings: agricultural crops, cattle-rearing, minor farm industries such as bee-keeping, rabbit-breeding and poultry-keeping, handicrafts, construction techniques, maintenance, first aid, human relations etc.

All training was free of charge for the trainees.

A total of 40-120 hours per course; the average course length in 1970 was 73 hours. Most courses lasted for less than one month; none for more than three months. Usually 2-6 lessons per day. The training was given during the season(s) of the year, day(s) of the week and time of the day most convenient to the trainees.

The training was to be practical rather than theoretical. Practical demonstrations and exercises were encouraged. The instructors were recommended to use tools and equipment available locally. Detailed syllabi and visual aids were worked out centrally by SENA, but the instructors were allowed/encouraged to alter the contents to fit local conditions.
Transport/facilities

Motor vehicles of different types, but also mules, horses and canoes. Usually the village school or other suitable buildings were used. Prefabricated classroom buildings were also utilized.

Comments


"The PPP-R programme demonstrates that it is logistically possible to operate a large-scale mobile training programme that reaches isolated rural areas at relatively low cost. However, other countries looking at the PPP-R experience need to note some of its special features and some of the initial problems it has encountered and is now endeavouring to remedy. PPP-R has developed as part of a securely established, well-financed national organization with considerable experience in providing occupational training. SENA provided and still provides strong administrative and technical backstopping to the PPP-R programme and lends this programme some of the prestige SENA has gained throughout Colombia. The incremental cost of adding a mobile rural training programme to a large ongoing programme is presumably less than that of creating one de novo as a separate operation."

According to Coombs, some of the major PPP-R problems were

- difficulties in integrating PPP-R training into ongoing local development schemes (greatest impact was measured in integrated training programmes)
- difficulties in maintaining a competent staff willing to spend so much time away from home in relatively primitive conditions
- difficulties in selecting and designing courses and contents appropriate for each area
- difficulties in transporting essential tools, equipment and materials over rugged terrain to remote rural areas
- difficulties in getting the local programme well organized in advance of the instructor's arrival
- difficulties of following up with further training in each area within a reasonable period of time
- serious lack of evaluation measures

Sources:

Boletin Cinterfor 42 (1975): "Programas y Perspectivas del SENA en 1975-76"

Cinterfor Informes 68 (1976): "Acciones Móviles de Capacitación"

HONDURAS

Rural Vocational Training (ILO/CTS/75/HN/1)

This project was partially financed by the Government of Switzerland. In 1979, an expert in the use of mobile training units in rural areas was to be recruited.

Source: Vocational Training Branch, ILO, Geneva, 1980

PERU

SENATI - Servicio Nacional de Adiestramiento de Industria y Turismo

SENATI's mobile units, partially financed by Dutch funds, were used for vocational training in metal work and electromechanics. Trainees were employees at small enterprises in rural areas. The courses were short, averaging 40 hours. A team of Dutch experts assisted in the planning and implementation of the programme.

Detailed technical specifications of SENATI's mobile units, Volvo F-86 and Toyota Landcruiser, with installations and prices are given in A J Duermeijer's "Report, Instruction with the Aid of Mobile Units", pp 55-59 (1976), see below.

Source: Cinterfor Informes 68 (1976): "Acciones Móviles de Capacitación"

---

GENERAL SPECIFICATION OF THE VOLVO F-86 TRUCK AS USED BY SENATI IN PERU

Dimensions of P86-49 in mm

A Wheelbase
D Length of cab
E Front axle - rear edge of cab
G Overall length
I Front overhang
J Rear overhang
K Maximum width, front tyres
M Track, front
N Track, rear
O Cab roof - ground, unladen
R Frame - ground, loaded

Annex 1b
VENEZUELA

INCE - Instituto de Cooperación Educativa

Background
In the early 1960's, INCE started a vocational training programme with mobile units based on a Spanish model. In the beginning, the intention was to give 60,000 unemployed adolescents vocational training in a four-year period within three sectors: industry, trade and rural development.

Objectives
To give unemployed adolescents, also in distant and sparsely populated areas of the country, vocational training leading to employment or self-employment.

Donors
No data in the reports listed below. However, a major part of the sophisticated equipment was imported from the United States.

Structure/size
Close cooperation with Venezuelan enterprises and 14 regional vocational training institutions. National and regional structure for the programme. According to Cinterfor, INCE carried out close to 10,000 courses in rural areas from 1961 to 1974. More than 120,000 persons participated in these courses.

Trainees
Priority for unemployed literates between 16 and 26 years of age. Maximum 20 trainees per course. No data on women's participation. The training was provided free of charge to the participants who received appr US $ 1 per day for travel and meals.
On the outskirts of Caracas, Venezuela
In 1975, INCE had 332 full-time instructors for the rural mobile units. In later years, the American company Prep International, Inc. has provided training "in the didactic, administrative, organizational, and maintenance aspects of the units."

Courses of varied duration. Subjects: e.g. agriculture, fishing, electro-mechanics, sewing, carpentry, construction and trade. Programmed instruction with audio-visual aids.

Motor vehicles of different types. Local school buildings. During the second half of the 1970's, INCE bought 51 mobile units from the United States for advanced training in small gas and diesel engine mechanics, refrigeration and welding by means of audio-visual, individualized and self-paced instruction. Each unit was 3.7 m wide and 14 m long with an interior height of 2.4 m. The units were built with areas for group instruction, working space for 12 to 20 trainees, storage for supplies and an instructor's area.

No data on total weight and cost per unit are given in the documents listed below.

The American company Prep International with headquarters in New Jersey, was awarded a contract to supply INCE with 51 complete mobile vocational training units with programmed audio-visual instruction for the instructors and trainees. In a company brochure, the mobile units are launched as "a perfect example of the complete mobile package". There are some 20 colour photographs in the brochure. They show that these highly sophisticated mobile units were not made for rural roads. The well dressed gentlemen in the pictures do not look like unemployed villagers. There are few women in the pictures.

The Cinterfor publications (see below) about the INCE programme are positive, but it is reported that, in the majority of cases, the strictly programmed instruction was not adapted to the rural realities. The number of drop-outs is reported to have been high. According to one source, 42 per cent of the trainees were employed on completion of the training programme.

Sources: "Mobility", Prep International brochure

Cinterfor Informes 68 (1976): "Acciones Móviles de Capacitación"

Boletín Cinterfor 51 (1977): "Las Unidades Móviles en Venezuela"
SOURCES OF INFORMATION INCLUDING BIBLIOGRAPHY

The information in this survey of mobile vocational training units is based on:

1  ILO, Geneva

   a) Interviews in October 1980 with

      - Mr H B Moerke, Chief of Branch, Vocational Training Branch
      - Mr J Zarraga, Head of Section, Vocational Training Development (Rural)
      - Dr A Espinoza, Research and Development Officer, Vocational Training Development (Rural)
      - Mr B Strehlke, Forestry Training Specialist, Vocational Training Development (Rural)
      - Mr P C Pooran, Training Policies Branch
      - Ms P Pereira, Training Policies Branch, Women's Unit

   b) Thorough study in October 1980 of all reports, memoranda, brochures, letters, search service lists, etc in the ILO (Geneva) files on mobile vocational training units, e.g.

      - project documents: ILO, UNDP, FAO, World Bank, Development Training and Communication Planning (DTCP), Canadian International Development Agency (CIDA), Young Men's Christian Association (YMCA), etc

      - SDC International Search Service lists with brief descriptions of mobile units in different countries

      - Cinterfor's publications about mobile vocational training units in Latin America (in Spanish and Portuguese)

   For details, please refer to Bibliography below.

2  SIDA, Stockholm

   Interviews with colleagues in the Vocational Training Section of the Education Division and study of publications in their files, especially


   - Eriksson, Olle: "Report: National Vocational Training Programmes, Mobile Training Unit, Pilot Programme", draft memorandum re Tanzania, 1979
My own experience

My own experience of mobile training units in Afghanistan, Indonesia, Sri Lanka and Thailand

Other

Conversations with

- Dr Flahault, Chief, Health Manpower Development, WHO, Geneva, 1980. Dr Flahault is the WHO representative in the Inter Agency Group on Technical Training (WHO/ILO/UNICEF/WMO/ITU etc)

- Staff at SIDA's Health Division, Stockholm, 1980


- Mr Sven Brandt, ILO Vocational Training Specialist, Stockholm, 1982

Bibliography

Documents marked * are now available in the Mobile Vocational Training Units files at the Vocational Training Section of the Education Division at SIDA. These files also contain some of my notes from the interviews for this survey.

Unless otherwise stated, the documents are written in English.

GENERAL

* Duermeijer A J, "Rural, Instruction with the Aid of Mobile Units", 1976, 71 p.

* Haxthausen, T, "Une fourgonnette-cinéma simplifiée pour projections diurnes dans les villages", Technologie Appliquée, no date, in French, 2 p.

* "Mobile Training Centres", Inter-Training Systems, Ltd, Zug, commercial brochure, no date, 7 p.


* "Schools-on-Wheels, Mobile Training Centers for Industrial Trades and Services", Inter-training Systems, Ltd., Zug, commercial brochure, no date, 29 p.


AFRICA

Kenya


Sudan


Tanzania


ASIA AND THE PACIFIC

Afghanistan


Bangladesh

Cosio, M P, "The Mobile Training Scheme in Bangladesh", ESCAP, Bangkok, 1978

Fiji


Indonesia


Sri Lanka

Dias, Malsiri, Evaluation of the Women's Centres, Colombo, 1978 (777)


Thailand

* Griffin, Robert, "Improving the Utilization of Mobile Units in Agricultural Extension", DSCS, Bangkok, 1977, 17 p.

LATIN AMERICA

Brazil

* "BRA/77/016 - SENAR", UNDP (Brasilia) memorandum dated 7 May 1979, 2 p.


Colombia


Peru

* Duermeijer, A J, "Report, Instruction with the Aid of Mobile Units", 1976, pp.55-59

Venezuela


---

1) Cinterfor Informes 68 gives information about mobile vocational training units in several Latin American countries, e.g. Chile, Colombia, Peru and Venezuela.
INTEGRATION OF WOMEN

A check-list can be a useful aid when trying to integrate women in development programmes. Most donor agencies use such a list. Some have a few simple questions, others are very detailed. The ideal would be a basic list with straight, unequivocal questions on issues common to all development programmes, e.g. "What effect will this programme have on the situation of women?" and subject-oriented complementary lists, as necessary.

I have tried some of these lists in my work. The following questions are partly from a list compiled at the Institution of Social Sciences, University of Leiden. The Leiden list in turn is based on other check-lists issued by e.g. the donor agencies in the Federal Republic of Germany and Great Britain, FAO and women's groups in India.

Check-list

1. Objectives of the project
   a) To what extent are the rural poor considered as a target group and what attention is given to women?
   - What direct results are expected for women?
   - What are its effects on nutrition and health?
   - What are its effects on income?
     e.g. Does it provide employment opportunities for women?
     Does it give women more control over their own income?
     Does it make women less dependent on the husband's cash income for household needs?
   - Does it encourage acquisition of new skills? Which ones?
   - Does it increase self-reliance? How?
   - Does it encourage a change of attitude in the women participating?
   - Who proposed the project?
   b) In what way does the project give women more access to supportive amenities?
     e.g. Can they get the support of other women more easily? of organizations and institutions, including government programmes? of material amenities such as money, goods?
   c) Does the project offer women access to knowledge?
     e.g. of how to organize themselves, of their legal rights, of how they can discover what their problems are and deal with them in their own community; education on care of children, health, nutrition, working the land, household tasks, etc.
What effects does the project have on women's share in decision making?
- e.g. in the household, in the community, in organizations, in religious affairs, at official level, at government level.

What are the main benefits for women expected from the project activities?

Participation of women in the preparatory phase of the project

Are women in the target group directly involved in the preparation of the project: If so, to what extent?

Is enough information available on the needs and wishes of women in the target group and has it been used? How?

If women have not contributed at the preparatory stage, what is the reason? Can they still be encouraged to contribute at a larger stage?

If women have contributed at the preparatory stage, what part of the total number involved do they represent?

Have any women from outside the direct target group contributed to the preparation and decision making? Female staff or women in leading position?

What is their position in the community and family setting?

Are they members of the target community?

Participation of women in the operational phase of the project

Do women share in the decision making while the project is in operation?
- If so, in which organizational setting and in what way?
- If not, why not?

Are there any other ways in which women can influence the project while it is in progress?
- If so, how?

Is the role of the target group passive, in the sense that services and goods are made available to it (e.g. information) or is the role of the target group active, in the sense that it is encouraged to produce services and goods itself? Do women themselves invest labour, money or goods in the project? If so, in what way?

Is the project flexible enough to adjust to the changing needs and circumstances of women? Has any study been made of what can be done in this respect? What are the possibilities?

Means of implementing the projects

Do women have the same access to the implementation means as men?

- if literacy is required, have women the same level of literacy as men?
if a personal financial contribution is required, have women the necessary fund? If not, are any steps taken to counterbalance this, and how?

Activities integral to the project

Do activities take place at a time and location which suit women? Does the project offer childcare to mothers participating in project activities?

Can women participate on equal terms as men, if the activity is open to both sexes? If not, is this counterbalanced and how?

Further objectives of the projects and its impact on the social structure

a) What proportion of the total funds can be shown to benefit women?

b) Are the skills women acquire by the project useful for other activities?

c) Does the project make allowances for expected social change? How?

d) What impact will the project have on the relative positions of women and men?
   - rolepatterns
   - control of means
   - ownership
   - labour allocation

Will these consequences create new problems? If so, what are they?

e) Does the project improve the status of women – in the eyes of women/men? Will these consequences create new problems? If so, what are these?

f) Does the implementation of the project lead to discrimination or exploitation of women – in the short term/long term?
   - female labour being unpaid or poorly paid
   - women given work of low social status
   - increase the work load of women
   - deprive women the control over the results of their work

g) Will the project have a favourable impact on the attitude of the authorities at local and national level with regard to improving legislation and/or its implementation with reference to women?

Self-reliance

a) In what way does the project aim to reduce dependence on external resources and increase dependence on local material and non-material resources?

b) Does this increased self-reliance apply also to women? In what way?
3.8 OCCUPATIONAL TRAINING NEEDS ASSESSMENT

- Training Exercise -

To be completed in training session

<table>
<thead>
<tr>
<th>Step 1. Community development goal:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2. Community development task:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3. Jobs to be done or materials needed to implement task:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 4. Identifying occupations and special skills required:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 5. Assessment of occupations already available:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 6. Assessment of occupational training needed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
</tbody>
</table>
The Education Division at SIDA initiates and implements a large number of studies regarding education and training, especially in SIDA's programme countries.

In order to make these studies more readily available, they will be published in a series called "Education Division Documents".

Included in this series:

No.1: "Education and Training in Sri Lanka" by O. Engquist, L. Jiven, K. Nyström

No.2: "Education and Training in Botswana 1974-80" by J.O. Agrell, I. Fägerlind, I. Gustafsson

No.3: "The Indian Non-Formal Education Programme" by O. Österling, J. Persson

No.4: "Education and Training in Bangladesh" by A. Gorham, J. I. Löfstedt

No.5: "Education in Guinea-Bissau 1978-81" by R. Carr-Hill, G. Rosengart

No.6: "Institutional Co-operation between The University of Zambia and The University of Luleå 1976-82" by K. Chitombo, S. Ray

No.7: "Mobile Vocational Training Units" by K. Larsson