International Training Course
For Engineers
and Town Planners

ASIST

Trainers' Notes

Sustainable community-managed and labour-based upgrading of urban low-income settlements

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Hamish Goldie Scot
Jan Fransen - Wilma van Esch

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International Labour Organization
ASIST - Advisory Support, Information Services for Labour-based Infrastructure Programmes (ILO)

Hamish Goldie-Scot - Jan Fransen - Wilma van Esch

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Preface

The ILO has promoted the concept of people's participation since the mid-seventies. Participation of local communities in development decisions affecting their lives is indeed a precondition to economic, social and political changes required to achieve better working and living conditions for the low- income groups in society. During the 1990s, efforts to materialise ''participation'' were undertaken in a number of grassroots programmes, resulting in the development of ''community-contracting'' as a policy tool to define roles, rights and obligations of each party concerned - e.g. local government and a community-based organisation -, and to introduce the principles of organisation and negotiation in the weakly organised and informal urban or rural areas.

Experience in the field projects, particularly with community-managed labour based upgrading schemes in urban low income areas, revealed that, for local government to effectively deliver its part of the contract, the municipal staff needed and actually requested support to improve and update their qualifications. Consequently, in 1999, a training needs assessment was carried out by ASIST* in Tanzania and Kenya, with a view to evaluating the needs for training of municipal engineers, technicians and foremen. The training material developed on the basis of this assessment consists of two parts:

- *A training course for engineers and town planners, Sustainable community-managed and labour-based upgrading of urban low-income settlements ;* it has three components: i) Trainer's notes; ii) Workbook; and iii) Handbook; and
- *A site supervisor course for labour-based and community-managed upgrading of urban and low income settlements*; this course consists of I) Training manual: Basic course; ii) Training manual: Skills course; and iii) Handbook.

Obviously, the present training material must be completed by similar training material addressing the needs of the communities themselves, i.e. their technical and managerial capacity, and their organisational and bargaining capacity**.

It is hoped that this package will enable local communities and local government to improve their ability to effectively cooperate and succeed in their efforts to upgrade the economic and social conditions of those who so often lack access not only to economic opportunities and basic social services, but also to the so much needed technical support.

The present Trainer's note for the International Training course for Engineers and Town Planners has been prepared by Jan Fransen, Hamish Goldie Scot and Wilma van Esch.

I would like to thank the authors for this useful guide, and express my gratitude to DANIDA and Italy for their financial assistance.

Jean Majeres
Head,
Employment-Intensive Investment Branch

* ASIST: Advisory Support Information Services and Training, is the regional support programme of the ILO's Employment-Intensive Investment Programme.

** ref.: "Community Contracts In Urban Infrastructure Works, Practical lessons from experience" by Jane Tournee and Wilma Van Esch. 2001.

Abbreviations

ASIST	Advisory Support, Information Services for Labour-based Infrastructure Programmes (ILO)
ABO	Area Based Organisation
CAP	Community Action Plan
CBO	Community-based Organisation
CDA	Community Development Association
CDC	Community Development Committee
CIP	Community Infrastructure Programme (DSM)
CM	Community Management
CMLB	Community Managed Labour BAsed
DSM	Dar-es-Salaam
HN	Hanna Nassif (DSM)
ILO	International Labour Organisation
KTC	Kisii Training Centre, Kenya
LBT	Labour-based Technology
NCC	National Construction Council, Tanzania
NGO	Non Governmental Organisation
NIGP	National Income Generation Programme
PRA	Participatory Rapid (Relaxed) Appraisal
PROSPECT	Programme of Support for Poverty Elimination and Community Transformation, by Care Zambia (Lusaka)
PUSH	NGO for Peri Urban Self Help (Lusaka)
SLP	Sustainable Lusaka Project
UCLAS	University College of Lands and Architectural Studies (DSM)

UNHCS	United Nations Centre for Human Settlements
WAC	Welfare Advisory Committee
WEDC	Water, Engineering and Development Centre
WHO	World Health Organisation

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Introduction

How to use the notes

These notes are intended for the course guide and lecturers and should be read in conjunction with the Handbook and Workbook for participants, they will help these trainers as they prepare for the challenges presented by this innovative course. The notes consist of four parts:

- Modules
- Project assignment
- Management and administration
- PowerPoint presentations

The timetable is in the introduction. The modules describe the classroom sessions; the project assignments describe the project work for students; and the section PowerPoint presentations gives the draft presentations for the modules.

Nature of the course

Trainers will need to be well prepared if they are to approach each module in a confident manner and be fully responsive to feedback from the participants. Only then will the course have the intended impact. There is not a fixed amount of material to be delivered. Rather, each module contains core information and ideas that should result in an intense learning experience. The aim is that each participant should acquire new skills and the confidence to make difficult decisions. This will be more important than the knowledge acquired.

The detailed structure of the course presented in these notes is intended primarily for the benefit of the trainers, to serve as a reference point from which the actual course will inevitably depart. It would be counterproductive for course participants to be provided with too much detail of what is planned. The maximum value will be derived from many of the sessions if the participants do not know what to expect. They should, however, know the basic structure of the course and feel confident at all times that they can obtain encouragement, support and direction from the trainers.

Required profile of trainers

Each of the trainers should have experience that is of direct relevance to community managed labour-based upgrading of urban settlements. In view of the intensive nature of the course, it is proposed that at least two trainers are involved each day, in addition to a course administrator.

Tips for trainers

Training should be stimulating for participants. Some tips are:

- Read your module carefully and keep to the content of your session to prevent overlap with others
- Use your own experience and data to liven up the content of your session
- Do not read the modules to participants
- Use a mix of media (lecture, overheads, field visits, discussions, video, etc.)
- Promote discussion and active participation of participants
- Try not to say too much; people have a limited attention span
- Link theory to the project work

Required profile of participants

The target group of the course are engineers and planners responsible for infrastructure provision and services in urban low-income settlements. Preferably they should have a university degree and some working experience. They will need to apply engineering and planning skills during the course, such as mapping, designing and costing without additional training. The most appropriate number of participants in 15 to 25 (see section Course management).

Time constraints

There is a great deal of ground to cover in this course. The course guides will be responsible for keeping up the momentum, while at the same time ensuring that no participant is left behind. A key requirement is that the start of the Project Assignments is not delayed, as they represent the core of the course. Once these are under way it should be possible to find the time needed to reinforce any point that were not adequately addressed in the more structured parts of each of the other modules.

Course material

Prepared course material falls into three categories:

1. ***Trainers' notes.*** These are intended for the exclusive use of the trainers. They consist primarily of text, which is best read in conjunction with the equivalent module in the handbook and workbook.

2. ***Handbook. Participants' notes.*** These will be handed out to the participants with their welcome pack. They consist of concise information on each module, infrastructure type and case study. A bibliography is attached. It intends to provide course participants with a clear overview of the issues they will be addressing during the course.
3. ***Workbook.*** Participants' notes. These will be handed out to the participants in conjunction with the Handbook. They provide guidance on the project assignments for participants. Each project assignment relates to a theoretical module, as summarised in the Handbook.

Time table

Week 1	09:00–10:30	10:30–11:00	11:00-12:30	13:00-14:00	14:00-15:30	15:30-16:00	16:00-17:00
Monday	***E1 Course introduction*** 1.1 Introduction	Tea and exhibition	1.2 Official opening and introduction to CMLB upgrading	Lunch	***E2: Life in a low-income settlement*** 2.1 Urban poverty: trends; characteristics	Tea	*Project step 1: introduce project work and project justification*
Tuesday	*Project step 1: group presentations*	Tea	***E3: Community participation*** 3.1 Tools for community participation		3.1 Continued 3.2 Community participation exercise: problem tree		3.3 Community participation exercise: transect walk
Wednesday	*Project step 2 (at site): problem analysis (problem tree and transect walk)*			Lunch with CBO	*Project step 2 continued*	Tea at site	*Project step 3 (at site): primary data collection*
Thursday	*Project step 2 and 3: group presentations*	Tea	***E4: Partnerships*** 4.1 Partnerships with NGOs and CBOs	Lunch	4.2 Plenary discussion: role of all partners	Tea	4.3 Case study of Hanna Nassif: partnerships in all project phases
Friday	4.4 Group work: capacity building of partners		4.5 Role play 1: Priority setting by an NGO, CBO and council		*Project step 4: partners and their roles*		*Continued*

Yellow italic: names of modules *Black italic:* project work

Week 2	09:00–10:30	10:30–11:00	11:00-12:30	13:00-14:00	14:00-15:30	15:30-16:00	16:00-17:00
Monday	*Project step 4: group presentations*	Tea	***E5: Intractable problems*** 5.1 Intractable problems	Lunch	5.2 Appropriate design options for low-income settlements	Tea	*Project step 5: consider technical and not technical solutions*
Tuesday	*Project step 5 (at site): data collection*	Tea at site	*Continued*		*Project step 5: Group presentations*		
Wednesday	***E6: Labour-based technology*** 6.1 Labour-based rural roadworks step-by-step	Tea	6.2 The urban application of LBT		6.3 Site visit	Tea at site	Site visit continued
Thursday	***E7: Money matters*** 7.1 Costing CMLB projects		7.2 Costing exercise	Lunch	7.3 Case study: costing of the Hanna Nassif project	Tea	*Project step 6 and 7: costing labour-based options*
Friday	*Project work continued*		*Project work continued*		*Project: presentation of step 6 and 7*		

Yellow italic: names of modules *Black italic:* project work

Week 3	09:00–10:30	10:30–11:00	11:00-12:30	13:00-14:00	14:00-15:30	15:30-16:00	16:00-17:00
Monday	***E8: Contract administration*** 8.1 Community contracting	Tea	8.2 Contractor development	Lunch	8.3 Role play: developing a community contract	Tea	Role play continued *Project step 8: developing a community contract*
Tuesday	***E9: Maintenance*** 9.1 Community maintenance		***E10: Management*** 10.1 Labour and project management		10.2 Programme management		*Project step 9 and 10: maintenance and management*
Wednesday	10.3 Site visit to City Council		Continued		*Project step 9 and 10: maintenance and management*		*Project step 8 – 10: group presentations*
Thursday	*E1 – E10: project document* • *State of affairs* • *Logical framework*		*Continued*: *Group work: logical framework*	Lunch	*Continued*: *Presentation of group work*	Tea	*Continued:* *Finalise project document*
Friday	Prepare and present individual action plans		Course evaluation and closure		Farewell lunch		

Yellow italic: names of modules *Black italic:* project work

1 Course introduction

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Have a clear understanding of the course, its administrative arrangements and the opportunities to draw on support from the trainers.

- **Skills**

  Gain experience in presenting personally prepared material to fellow participants

- **Attitudes**

  Be at ease about the course, confident about its value and relevance to their work, and eager to make the most of the opportunity it offers.

Handouts

- Participants' notes
- Welcome pack (see section 21.5)
- Time table

Background material for lecturers

- Full lecturers notes, handbook and workbook
- J Liu (1998), *Urban employment guidelines*. ILO.
- ILO (1993), *From want to work. Job creation for the urban poor*.
- A Cotton, K Taylor (1998), *Urban Upgrading Training Modules*, WEDC/GHK.
- H Goldie Scot, J Fransen, P Chaudry (1999), *Training for labour-based and community-managed upgrading of urban low-income settlements: Step 1 Outlining training courses and materials for technical staff:* ILO ASIST.

1.1 Introduction

The introduction will take place before the official opening in order to reduce the risk of unproductive time.

10 min. Welcome (by all)

Welcome and brief introduction to all participants, the hosts, organisers and lecturers.

15 min. Overview of course and course objectives

This course is intended for both Town Planners and Engineers. Each needs to understand and appreciate the role of the other as well as the needs of the communities they serve.

By the end of the two-week course, participants are expected to be fully aware of the advantages of labour-based and participatory approaches to infrastructure provision and management. In particular, they should be able to:

- plan and design appropriate engineering solutions to upgrade urban low-income settlements
- work in partnership with local communities
- manage community contracts and award contracts to small-scale local contractors
- design appropriate maintenance strategies with the community
- plan and design labour-based construction and maintenance works.

They will learn to appreciate the relevance and value of community management of urban infrastructure projects. They will also acquire, through practical experience, some of the skills needed to follow this approach.

The course is unashamedly intense. Those who get most involved will probably make the most mistakes, but they will also learn the most. Each participant will be required to contribute actively throughout the course. At times they will be expected to make decisions when there is no obvious 'best' solution. This is part of the process of learning how to deal with the difficult situations they will find when they work in low-income settlements.

This course will have failed if it does not result in changed attitudes and behaviour when participants return to their jobs. Towards the end of the course each participant will be expected to present a brief action plan. This is their opportunity to show how they believe they can best apply what they have learned. They will also be asked for suggestions as to how the course can be improved.

Discuss the course structure and timetable with the participants.

5 min. Introduction of handbook and workbook

Introduce the handbook. Section 1 to 10 provides key information on each module. For instance, module 1 details key concepts and course information. Section A to E provides information on each type of infrastructure. This is particularly relevant for project work. Case studies provide relevant examples. Key documents for further reading are in the bibliography.

Introduce the workbook, which guides participants through the project assignment.

5 min. Project assignment

A central feature of the course is the Project Assignment. Participants will work as a consultancy team preparing a project document for a low-income settlement. They will work in small groups to go through the main steps required to identify and prepare a CMLB project. The exercise will involve group work, field visits, data collection and community meetings. They can make use of a library.

Each module will be followed by a project assignment. . Participants will have to listen carefully to all sessions to pick up arguments and skills for their assignment. The project assignment will be introduced in more detail in the late afternoon.

10 min. Administrative arrangements

A clear and concise explanation will be given of all administrative arrangements. This will be backed up by written material to be included in the welcome pack. Given the challenging nature of the course it is important that participants feel confident about the arrangements and free to ask for information or advice at any stage.

Issues to discuss are:

- Hotel arrangements
- Transport arrangements
- Social programme
- Pocket money
- Malaria
- Food: any special preferences
- Library
- Participants should appoint a participant representative

30 min. Icebreaking exercise 1: Portraits

Materials: Format overleaf, pens.

Time: 15 minutes of portrait drawing, 15 minutes for a roving exhibition

Exercise: Each participant, (including trainers) to complete the format overleaf for a fellow participant/lecturer. Participants then introduce each other in pairs.

15 min. Icebreaking exercise - 2: Expectations

Materials: ZOPP board and cards.

Exercise: Each person notes up to three expectations of the course on cards. The moderator structures these on the board.

Portraits

<table>
<tr><td colspan="2">Name</td><td colspan="2">Age</td></tr>
<tr><td colspan="2">Title</td><td colspan="2">Nationality</td></tr>
<tr><td colspan="4">Employer</td></tr>
<tr><td colspan="4">Portrait</td></tr>
<tr><td colspan="2">Background</td><td colspan="2">Experience</td></tr>
<tr><td>Engineer</td><td>Town Planner</td><td>Community Management</td><td>Labour-based technology</td></tr>
<tr><td>Tick where appropriate</td><td></td><td></td><td></td></tr>
</table>

1.2 Official opening

The timing of the opening will depend on the availability and actual arrival time of the guests.

Exhibition (during tea)

In order to maintain a practical focus, there will be an informal exhibition during tea to demonstrate key features of CMLB projects. Participants and guests will then be able to look at and discuss the exhibition.

30 min. Official opening

The official opening will be short, but will affirm the importance attached by Government and other organisations to the course.

1.3 Introduction to CMLB upgrading

10 min. Introduction

The session aims to agree an understanding of the key concepts *'community-managed'* and *'labour-based'*. Participants will have come to the course with their own conceptions. It is crucial to create an environment where these conceptions are discussed.

Most Engineers and Planners have been trained in, and so feel comfortable with a 'top-down' approach to planning. This is based on a 'conventional' model whereby people pay taxes, leaders are elected, and officials are appointed. These officials then plan and implement in order to make everything work smoothly for the tax paying public. It is felt that there is no need for consultation because people are mostly satisfied by the infrastructure provided.

This is the theory, but it rarely happens that way in practice, particularly in informal settlements. Here we have people who avoid paying taxes. Officials are appointed but often do little or nothing, as they have no resources. The result is a low-input low-output self-reinforcing circle in which little appears to work effectively. Many planners and engineers assume that they only thing to do in these circumstances is to bring in the bulldozers in an attempt to get rid of what is seen as the 'problem' of informal settlements. This approach results from a misunderstanding of the nature of the problem. While informal low-income settlements present many problems, they also represent considerable investment by those who live in them. If government officials and local people pool their knowledge and work in partnership, these settlements can become an acceptable and useful component of the urban fabric.

In recent years, recognition of this fact has led a growing number of governments to accept the existence of these informal settlements, and to treat the challenge they pose in a positive way. One aspect of this positive approach has been an increased emphasis on involving the community in improving their physical environment.

Although much has been written about a more participatory approach to urban upgrading, experiences are still limited. What experience there has been suggests that a major constraint to this approach is that it can be at odds with the training and instincts of the Planners and Engineers involved.

25 min. Community management

The lecturer defines community management, and compares it with definitions of community-based and community participation. The community can be involved in various ways and for various reasons in construction and maintenance of infrastructure and the provision of services. The community can only be consulted in the planning exercise or may be involved in construction, maintenance and operation as the client, consultant or contractor. Various examples may be given (see cases in the handbook).

Some key components of community participation are:

Community	▸ Locally resident ▸ Organised or represented in some way ▸ People with a common interest ▸ Heterogeneous
Community-based	▸ Community as a focal point
Community-Management	▸ Community taking the lead to a greater or lesser extent in the planning, implementation and operation
Community Participation	▸ Community involved to a greater or lesser extent in planning, implementation and operation

Participants can then be split into two halves to give advantages and disadvantages of community-management in a plenary session. The advantages and disadvantages should be discussed to iron out misunderstandings.

25 min. Labour-based technology

The same process can be undertaken for labour-based technology. Labour-based technology has a long background in the countries represented at the course. Kenya has been the pioneer in labour-based rural roadworks and many managers, engineers and technicians still visit

Kenya to learn the skills. Tanzania has considerable experience in contracting labour-based rural road works, while the Hanna Nassif project provides insight in an urban application of the technology. In recent years, both Zambia and Uganda are making rapid progress in labour-based contracting, both in an urban environment and in rural roads.

In rural road works, labour-based technology is cost effective in low-income countries. For urban works, labour-based technology is often the only option in highly congested settlements. The challenge is to adopt the technology to an urban environment, where communities are involved, sites are highly congested and development should be integrated (services such as roads, drainage without mitre drains, sanitation, water supply and solid waste management can't easily be separated).

Key concepts are:

Labour-based Technology	▸ High labour content ▸ Tightly managed ▸ Appropriate use of light equipment ▸ Cost-effective ▸ Up to standard
Employment Intensive	▸ High labour content ▸ Not necessarily cost-effective

Finally the lecturer summarises the outcome of the lecture.

2 Life in a low-income settlement

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Have a clearer understanding of the everyday pressures to which residents are subject, and the way in which these determine choices and the patterns of decision making.

- **Attitudes**

  Be more receptive to the residents perspective of issues of daily living, in particular those relating to infrastructure provision and maintenance.

  Appreciate that working in low-income settlements is a valid and interesting professional option.

Handouts

- Lecture notes.
- ILO (1998), *The future of urban employment*, or ILO (1998), *Urban employment guidelines*.

Lecturers background material

- See section 1.
- Latest statistics: ILO, *World Employment Reports*; UNDP, *Human Development Reports*; World Bank, *World Development Reports*; web sites of ILO, UNDP, World Bank.
- National and local data on low-income settlements.
- Handbook: Module 2 and cases.

2.1 Urban poverty: trends and characteristics

15 min. Statistics and trends

International trends of urbanisation and urban poverty: to be prepared by the lecturer. Lecturer also to provide data to highlight the social and political features of life in low-income settlements in the hosting town. Many of these will be negative, but some should be positive.

25 min. Characteristics of cities

Plenary discussion of the characteristics of cities of the participants. The purpose of this exercise is to raise the awareness of the differences between cities and the implications of those differences on the effective provision and maintenance of infrastructure.

Participants should take the lead in making suggestions about key characteristics of their cities (which they should bring). The lecturer may prepare a table with all characteristics. Features to be raised include:

- % of growth, poverty, un/underemployment, people living in unplanned settlements
- How cities are located and have developed spatially. (eg colonial policy of separating townships has been continued in come cases since independence) (planning problems)
- Key problems in unplanned settlements How crime affects settlement dwellers.
- The strengths/weaknesses of city authorities
- Key differences between planned and unplanned settlements.
- Pressure on space

Note: *participants will have collected this information at home. The lecturer should prepare the information beforehand.*

Cities can be characterised as: rich, with relative poverty (Europe, USA, ...), cities with large pockets of poor (most capital cities in Africa) or poor cities (such as minor cities in arid and semi arid zones). The characteristics will affect the strategies for upgrading.

South Africa can be referred to as a special case. Although a highly participative approach is being taken to the upgrading of low-income settlements, this is based on the willingness of Government to make major investments in what are often essentially new sites. Such an approach is much less likely to be feasible in the rest of Africa, and can bring its own problems. An interesting feature of the South African experience has been the difficulty encountered in identifying true 'representatives' of the communities.

25 min. Characteristics of low-income settlements

In order to start to understand community needs, participants must understand the realities of day-to-day life in the community they are seeking to serve. By identifying closely with the full spectrum of local residents they should establish the answers to basic questions such as:

- How can I earn income?
- How do I set priorities in my time?
- How do I stop the rain coming in?
- How do I stop my house flooding?
- Where do I defecate?
- How do I reach my work?
- How do I dispose of my rubbish?
- Where do I buy things?
- Where do I obtain medical care?
- Where do I obtain schooling?

Many of these basic questions will be answered as the participants work closely with and spend time socially with members of the community during the module activities.

Plenary discussion: Identify characteristics of urban low-income settlements and differences between the represented countries. These characteristics should include:

- Heterogeneous population
- High densities in larger towns and close to job opportunities (Nairobi has 250 unites per hectare in low-income areas, 25 in middle income areas and 15 in high-income. Density per person in low-income areas is about 1,500.
- Physical layouts are relatively haphazard
- Land ownerships may be unclear, with high levels of renting
- Poor or absent maintenance of public infrastructure (also in site and service schemes)
- Poor living and working conditions
- Much home work (house as work place)

20 min. International experience in upgrading

In the 60s, 70s and 80s, site and services schemes and public housing intended to provide shelter for the growing number of urban poor. In time, it became clear that such an approach was expensive and that most settlements were not maintained properly. Many city councils lacked resources for operation and maintenance, while local communities felt no responsibility for their environment. It became clear

that instead of constructing new settlements, low-income settlements should be upgraded. It also became clear that city councils and local communities should be involved to create maintenance systems and proper use of facilities. Hence, internationally there is a growing and increasingly successful move towards working closely with communities to upgrade low-income settlements.

At the same time, the last decade saw a growing attention to urban management and planning. It is realised that city councils are central to the sustainable upgrading of low-income settlements. They require decentralisation and proper accounting. Land planning may prevent further growth of unplanned settlements.

Dar es Salaam can be sited as an example, where the population grew from about 638,000 in 1975 to close to about 3 million in 1999, and an expected 4 million in 2015. The document *'Employment-intensive upgrading of urban unplanned settlements by communities'*, Sheuya, 1997, ILO ASIST, provides examples of changes in policies and interventions.

15 min. Present a sample case study (see cases in the handbook)

Participants should be encouraged to read through each of the case studies in their own time.

10 min. Questions

3 Community participation in upgrading works

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Learn about options of community participation in planning and infrastructure provision and maintenance.

- **Skills**

  Gain experience in reviewing a range of options for community participation, such as Participatory Rapid Appraisal and Community Action Planning.

- **Attitudes**

  Appreciate the need for community participation tools.

Handouts

- Lecture notes

Lecturers background material

- A Hope, S Timmel (1984), *A handbook for community workers, Volume 1, 2 and 3*.
- UNCHS (1995), *Community Action Planning Series*.
- IT Transport (1999), *Community Participation in Road Maintenance: Guidelines for Planners and Engineers*.
- S Kahn, K Taylor, A Cotton (1998), *Community Initiatives in Urban Infrastructure*, WEDC/GHK, Loughborough University.
- Handbook: Module 3, Case 2 (problem tree).

3.1 Tools for community participation

Note: *120 minutes are required for this session.*

5 min. Introduction

Urban communities are heterogeneous, whereby different groups may have different priority problems and solutions. Some groups may benefit from problems of others: land owners may benefit from high rents; water sellers from high water prices, etc. Every action in a community will thus have winners and losers and may result in conflict.

Participatory tools are practices and procedures that facilitate the involvement of different stakeholders in the planning, design and implementation of initiatives. Good participatory tools are designed to increase the chance that all community members, including those who would normally be marginalised, are included in decision-making processes. This increases chances of addressing real problems through viable and sustainable solutions.

This session starts with an introduction to PRA, the most widely advocated approach to participatory appraisal. PRA is a form of action research, designed to both collect information and to increase awareness amongst participants. It is not so much a participatory tool as an approach and a set of tools that can be used with the community to appraise current problems and possibilities and develop ideas as to the way forward. In contrast to the traditional tools of questionnaires, meetings and interviews, PRA assumes that the community decides which information is important. PRA tools, such as problems trees and resource analyses can also be used in detailed planning and implementation. Lastly, PRA methods can be used in participatory monitoring and evaluation of initiatives.

20 min. PRA concepts

PRA approaches differ radically from the more standard top-down approaches. The introduction of the concepts should be used to change concepts. This will require discussions.

The single most important PRA concept is that of *'handing over the stick'*. This implies that responsibility for generating and using information is transferred in its entirety to the community. The role of the professional is restricted to that of an enabler, providing information only when community members ask for it. This relationship ensures that the community takes the lead in identifying priorities. It builds on the concept that the community is not ignorant and knows its environment and problems better than 'professionals'. Professionals may come in to identify solutions.

A second key PRA concept is that of *triangulation* - in plain words, the principle that information obtained in one way and/or from one source should be cross-checked against information obtained using different methods and sources. Typically this would include drawing out the views of the providers of services, the users of those services, the managers and the workers.

A third concept is that of *'optimum ignorance'*, whereby only information is collected that is needed. The concept is a response to anthropological data collection, which was seen as time-consuming but lacking in specific objectives and benefits for the community.

65 min. PRA tools

Introduce commonly use PRA tools with short and simple examples. Ask participants if they have ever used any of them and ask then which they consider useful. Refer to the handbook.

- *Transect walks:* the resource person walks with community members along a particular stretch within the community, such as a road or along a river. The person notes down the specific characteristics mentioned by the community group. A transect walk may concentrate on environmental problems, social characteristics, access to services, etc.
- *Problem trees:* in a moderated group discussion, a problem is analysed to identify its causes and results. On that basis, the problems of a community can be linked and its causes identified. Normally, chappati diagrams are used to illustrate the problem.
- *Chappati diagrams* - intended to provide information on relationships. A chappati is round Indian bread. By linking issues in 'chappatis' relationships can be visualised.
- *Community mapping:* community groups draw a map of the environment as they see it. They may note down specific problem areas, social or economic information, etc.
- *Resource analysis:* all resources of a community can be listed as a first step to identifying local solutions.
- *Wealth ranking:* ranking who is rich and poor according to indicators of the community. Indicators may be the size of houses, number of wives, etc.
- *Seasonal calendars:* These enable the engineers and planners to see what services and facilities are important or come under strain at what points of the year, and why.
- *Timelines:* similar to seasonal calendars.
- *Focus group discussions:* open discussions with specific community groups, such as female headed households and unemployed youth.
- *Open ended interviewing.*

How can participatory methodologies be used in planning and engineering? Community development officers should first identify priority problems of the community. Then, they should bring planners, engineers, community development workers and the community together to agree on problems, see their links and possible solutions. The main risk is that the professionals dominate. This requires the strict use of community participation techniques.

PRA is intended to derive a qualitative picture of the rich texture of local life, and to capture some of the dynamism, flux and fragility of local people's livelihoods. While this can provide an essential insight into the way the community operates and the issues that are important to people, it may not provide enough information in itself for infrastructure planning decisions to be made. There may be a need to go beyond 'pure' PRA to use more focused participatory methods to obtain information and develop understanding on particular planning and infrastructure issues.

Most likely, this will be the end of the session. The remaining part can be presented and discussed after a short break.

15 min. Community action planning (CAP)

CAP uses PRA tools in a guided planning process of a community group. Stress the role of CAP as a means of enabling communities to:

1. articulate and explore their needs and concerns leading to the development of concrete proposals for action.
2. assess the resources available and determine who might do what in the development process;
3. integrate local action plans into wider municipal and national planning processes.

CAP was developed in Sri Lanka but versions have been used in many other countries. In most cases, the planning process centres on a workshop attended by community representatives and representatives of government departments and service providers. Discuss the process as described in case 5. Sri Lanka of the handbook.

Community action plans are only as good as the people involved and the action that is taken to implement them. The risk is that only community leaders are involved in the planning process. It may therefore be linked to other participatory tools to assess the opinion of a wider group.

If possible, CAP should link to higher level plans and programmes. If it is not feasible, it is essential that their findings are accepted and acted upon by the various service providers.

15 min. Communication skills

Good communication is the key to successful community participation. Some of its elements are:

- Be quick to listen and slow to speak
- Be clear about the purpose of each communication
- Use an appropriate medium
- Express it in your own words, preferably in writing
- Convey ideas with enthusiasm and openness
- Be sensitive to feedback
- Be sensitive to alternative perspectives
- Be creative
- Be inclusive – especially to disadvantaged groups

3.2 Community participation exercise – problem trees

Note: *60 minutes are needed.*

10 min. Introduction

The lecturer will give a short example of a problem tree. He/she asks the participants to mention causes of a particular problem (say poverty) and notes these down. Then he/she asks effects and notes these down.

Participants are requested to develop problem trees for –in their opinion– a typical high-density unplanned low-income settlements in a large town. The participants will be divided into four groups:

- Poor mobility and access (2 groups)
- Poor health (2 groups)

Each group will appoint one moderator, who will guide the discussion without dominating it. The others list potential causes and effects, which the moderator will note on cards and put on the board. One participant will be appointed to present the problem tree.

Participants will have 20 minutes.

20 min. Group work

The lecturer will walk around and advise groups if needed.

30 min. Report back

Groups with the same topic will present their findings, after which these will be discussed. A particular point of interest is that different people will come up with different causes and effects. The same will happen within a community.

3.3 Mobility participation exercise: transect walk

10 min. Introduction

The lecturer presents a sample result of a transect walk, where along a road flooded areas, solid waste and narrow passages are indicated. Remind participants that in a transect walk you note down the opinion of the community members.

In the same groups, participants are then asked to do a very short transect walk in the close vicinity. They will be asked to walk a particular route and prepare a map identifying key issues. The route may be within the building, where groups look at specific issues. For example:

- *Group 1 and 2:* Availability, condition, problems of equipment
- *Group 3 and 4:* Physical condition of the building: indicate where the building is in good condition and where what kind of maintenance is required.

30 min. Transect walks

Resource persons should join each groups, playing the role of community members. Staff of the building may join groups as well.

20 min. Report back

Jointly all groups give an overview of the status of the building and precise locations of problems. Note that transect walks may also indicate where the poor live and who own land. This may help in focussing activities towards the poor.

30 min. Project work step 2

The last 30 minutes, the project work on community participation should be introduced and linked to the lecture and exercises. Participants can prepare their field visit.

4 Partnerships

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Have a clearer view of the range of potential partners, their roles and the capacity they require.

- **Skills**

  Gain experience in considering and applying ideas about the relationships between the various partners involved.

- **Attitudes**

  Appreciate, from a professional perspective, the importance of communicating with representative local residents, NGOs and the private sector in ways in which knowledge is effectively and mutually exchanged.

  Appreciate the importance of including all members of the community in project dialogue and of actively seeking to include the disadvantaged.

Handouts

- Refer to handbook
- Lecturers notes

Background material

- P Gidman, BI Lorentzen and P Schuttenbelt (1995), *Public-private partnerships in urban infrastructure services*. UMP working paper 4, UNCHS.
- P Schubeler (1996), *Participation and partnership in urban infrastructure management*, UMP, UNCHS.
- F Davidson and M Peltenburg (1993), *Governments and NGOs working together for better cities*. IHS.
- R Chambers (199?), *Whose reality counts?*
- Handbook: Module 4, Case 1, 5 and 6.

4.1 Partnerships with CBO's and NGO's

10 min. Introduction

This session aims to introduce the concept of partnership, and potential roles of CBOs and NGOs in improving conditions in low-income areas.

What do we mean by partnership? - A partnership is a formal or informal relationship in which two or more individuals, groups or organisations agree to work together to achieve some common goal. It is not an end in itself. For example: we have a partnership in this classroom, with clear objectives and roles. Do we? Are all parties willing to contribute and meet the objectives? You may have a partnership in your marriage, but are your objectives and roles clear? Many initiatives fail, since partners have different objectives (their own agenda), are not willing to compromise or because roles in implementation are unclear. For example: NGOs and community groups generally look for short term solutions and Governments for long term policies. Any partnership between the two will have tensions to overcome such differences.

Partnerships in infrastructure provision can take various forms:

- Partners may agree to share their resources to achieve a particular goal. An example would be when the government provides a grant and/or technical advice for a plot-owner to provide improved sanitation facilities for his or her plot.
- Partners may agree to undertake separate but linked tasks. This form of partnership occurs when a community group provides an item of infrastructure, for instance a community sewer, that is linked to a higher-order government facility. It may also occur when a community group inputs in policy making and planning.

Why partnership? The obvious answer to this is that each partner brings something to the process that might otherwise not be available. This something might be finance but it is equally likely to be knowledge and skills. Effective partnerships are those in which the resources, knowledge and skills brought by the different partners are complementary so that each adds something to the process. In policy making and planning, for example, community groups could add knowledge on local needs and resources while Government officials add planning skills.

The second reason is to bridge the gap between governments and citizens. CBO's and NGO's may provide that bridge. Some services, however, may directly deal with households or users as the partner.

20 min. Forms of partnerships

Partnerships can take a number of forms. They can be categorised in terms of:

- who initiates the relationship;
- form of the relationship;
- degree of partnership achieved;
- formal and informal partnerships.

Who initiates the partnership?

Because the workshop participants are mostly from government, they will almost certainly assume that partnership means bringing community members into the government's programme. This does not have to be the case. Almost by definition, informal settlements originated outside government and most of the work in developing them has been done by local people with no assistance from government and other outside bodies. The possibility, indeed the probability, exists that partnerships can be initiated on the community side. The aim is then to involve government in the people's process rather than the other way around. Mention examples: case 1 and 2 of the handbook have been initiated by the community. Case 4 by an NGO and case 5 and 6 by the government.

The form of the relationship

Partnerships between government and communities in rural areas often take a **community-based** form. Community-based approaches to partnership emphasis what the community can do for itself and the ways in which the government can facilitate that self-help activity. The government's assistance is often provided through a special extension or community development worker. This form of partnership is best suited to relatively simple self-contained projects, such as the construction of a school classroom or the sinking of a hand-dug well.

For more complex projects, there will be a need for a **cooperative** approach in which a community and one or more government departments each provides resources and skills. In such situations, there is likely to be a need for **negotiation** as to the responsibilities to be assigned to each party and the ownership of assets. Attempts to take a community-based approach to problems that require cooperation and negotiation are likely to fail.

City-wide approaches to CMLB upgrading of low-income settlements will require a cooperative approach, whereby coordination takes place at city level. At the settlement level, a cooperative approach may be needed for more complex issues and a community-based approach for minor community initiatives.

The degree of participation achieved

Various systems are available for defining the degree of participation achieved, the earliest of which is **Arnstein's Ladder of Participation**. A composite version of the various systems might include the following degrees of participation:

- informing,
- consulting,
- provision of labour during implementation,
- participation in decision-making
- full community control of the upgrading process (community-management).

Mention examples of all degrees. It is commonly assumed that more participation is always better but this is not necessarily the case. Participation involves costs in terms of time lost and it is unlikely that community members will want the highest level of participation on every occasion. The key to success is to achieve the most appropriate form of participation in the circumstances.

A particular issue relating to the degree of participation concerns the role to be played by professionals, in particular engineers and planners. Under a genuine community management structure, the community decides upon priorities for upgrading, and consults planners and engineers as to how best they can implement their plans. Engineers and planners are viewed simply as a resource for the community to draw upon as they need to. Potential ways in which technical staff can be used in this way include:

- Assisting communities in problem identification
- Costing and assessing options
- Assisting with the implementation and supervision of final upgrading plans

Demand driven approaches such as these can offer prospects of sustainability, as users have actively participated in implementation of the upgrading. However, there are situations in which action at the local level may solve immediate problems but only at the expense of the wider environment. Professionals may be in a better perspective to take a wider perspective than local people. It is in such situations that the importance of dialogue and negotiation becomes clear.

Formal or informal partnerships

Partnerships may be formal, written agreements or informal and verbal. The most appropriate form depends mainly on the degree of partnership. For example: the Sustainable Cities Programme sets up working groups to advice municipal policy makers. This may be informal, without

recognition in decision making procedures. Or a by-law may stipulate that the working group will have to be consulted before decisions are made.

In CMLB upgrading, more formal relationships are required if the community group implements part of the work with public or donor funding. This requires registration of the CBO, a bank account and clear roles of each partner.

30 min. The roles of NGO's and CBO's

This session will introduce the roles of NGOs and CBOs in facilitating links between government and the community and in providing institutional structures to represent the community. Upgrading projects normally deal with improvements in services in particular geographical areas. The people living within these areas may come from a variety of socio-economic backgrounds and may or may not form a homogeneous group.

Generally speaking NGOs have a more legalistic, formal and recognised existence and are often organised around a key issue. They tend to deal with the problems and concerns of communities. Their staff tends to consist of highly motivated professionals and volunteers, directed at addressing specific community needs through participatory approaches. Besides these common characteristics, NGO's may take all forms: national or international, professional or do-gooders, rich or poor. Note that NGO's are defined by what they are not.

CBOs are more heterogeneous and multi-issued, but are exclusively community-based and represent (part of) the community. They are concerned with the problems and concerns of their own community.

There are two challenges involved in developing participatory approaches to upgrading with roles for both government and the local community. The first is to develop links between government and the community. The second is to develop structures within the community that allow the development of partnerships.

Special 'social organisers' or 'facilitators can provide the links. Government departments or specialist infrastructure agencies can employ these but NGO's may be better placed to fulfil this role. NGOs tend to be closer to communities than government and this may give them a comparative advantage in working with people to identify their priorities and needs and to organise themselves to take action for change and development. Use the case from Sri Lanka and/or the Netherlands as example (handbook).

Communities are made up of individual households or families but it is logistically difficult for outside organisations, such as government agencies and NGOs to work with individuals. There is a need for

Lack of skills and knowledge

Most CBO's lack skills on management, finances, planning, contracting and engineering. Thus, they have to be trained and require technical assistance. An umbrella organisation can provide such assistance. Most city councils on the other hand lack skills and knowledge to work with CBOs and NGOs.

Lack of representativeness

CBO's hardly ever represent the full community. NGO's have their own agenda and require funding. Truly demand driven approaches may work through CBOs and NGOs, but should also consider other interest groups and broader community participation skills. Questions to ask yourself are: are female headed households and youth represented by CBO?; are all language groups and other sub-groups represented?

15 min. Agreements

The partnership may be reflected in agreements. In first instance, the agreement may indicate a broad intention to work in a partnership to identify and solve certain problems. Such an agreement allows Government staff to adopt innovative approaches. For large-scale implementation of works, such agreements should be legal documents, for minor works it may be a more informal arrangement.

In a plenary discussion, the participants will propose the content of an agreement. This summarises the session and forces participants to concretise the topics. As a checklist for the lecturer, the various issues to be addressed are:

- Who initiates the partnership
- Form of the relationship
- Degree of participation
- Role of technical staff
- Specific roles of all partners
- Description of participatory process
- Accounting system
- Skill transfer

4.2 Partners and their role: plenary discussion

In a plenary discussion, the potential roles of all partners can be identified.

Step 1: identify key stakeholders in a plenary discussion.

Ask participants to mention key stakeholders and list these down. For example:

Organisations	
▸ CBO	▸ Contractors
▸ NGO	▸ Technical Assistance Agency
▸ Government Civil Service	▸ Donor (local, international)
▸ Government politicians	▸ Interest groups: churches/businesses, etc.
▸ Consultants	

Step 2: identify the potential roles of stakeholders

The lecturer may introduce the following potential roles:

Potential roles of the organisations	
1. Initiator/leader	5. Information provider
2. Financer	6. Official approval
3. Technical assistance (institutional, technical, social)	7. Constructor/maintainer
4. Client	8. Designer
	9. Monitoring and Evaluation

Note: *not all roles are required at each stage of a project.*

Step 3: identify the potential role of each partner

The participants will be asked to identify the potential role of each partner at each stage of a project in a plenary discussion. The lecturer should put the following table on flipcharts on a wall. The number of the activity, as identified in step 2, should be written into the table. It is useful to circle '1', which are the potential leading agencies of each step.

Role of each organisation at each stage of the project cycle								
ACTIVITY	CBO	NGO	Gov't	MP	Consultant	Contractor	Donor	Interest group
City wide planning/ policy								
Problem Analysis								
Feasibility Study								
Design								
Implement								
O & M								

4.3 Case study of Hanna Nassif: partnerships in all project phases

5 min. Introduction

This session looks at the method and level of community participation relating to the key stages of the project cycle, taking the Hanna Nassif project in Dar es Salaam as example. Lecturers may also take another example, with relevant community participation experience. The stages are:

- Problem identification
- Project planning and design
- Implementation
- Ongoing operation and maintenance
- Evaluation

After that, the session looks at structures within CBOs and NGOs and community participation in large-scale programmes.

10 min. Project identification

Community participation in project identification has already been discussed and applied in step 2 of the project assignment. Can participants remember some?

In Hanna Nassif, the community requested assistance in 1991, after serious flooding uprooted their houses. PRA was used to appraise the existing situation and CAP provided a tool for moving from general appraisal to the identification of specific needs. Activists and the CBO in Hanna Nassif were the vehicle for bringing community priorities to the attention of government. NGOs may also have an important part to play

in facilitating PRAs. In phase 2 of the Hanna Nassif project, it is UCLAS (university).

10 min. Planning

CAP provides a useful tool in the planning and design process. Stress the fact that planners and designers have a lot to learn from what people are doing at present. Proposals should be presented to the community for discussion before they are finalised so that people can express their opinions. This may be done through a local CBO and it is also possible for an NGO to facilitate the process.

In Hanna Nassif, the planning process took a long time. It mainly involved the CBO. During project implementation, planning remained important since plans needed to be adopted. Also, a larger group of people became involved.

10 min. Design

Design is work of experts, but the community should be involved in the process. Consultancy firms are not used to such participatory processes. In Hanna Nassif, the designs in phase 2 took 9 month instead of 3. The main reason was that the consultant had to redo the designs after community consultation. It will be more logical to first outline various options and then detail the selected option(s). Visualisation techniques need to be described.

Two particular issues are:

- How can the wider community be involved, in design, instead of only the community leaders?
- How can technical issues be communicated to the community in an understandable manner?

10 min. Implementation

There are various ways in which the community participated in the implementation in Hanna Nassif.

- *Labour:* The most basic level is the provision of paid labour. The CBO was also involved in wage setting and labour selection. Describe the experiences.
- *Community contracting:* The CBO in Hanna Nassif is the *client*. Jointly with city council they subcontract construction works to the construction committee of the CBO. The committee appoints local labour and buys material, tools and equipment. Technical support is given by a city council engineer and UCLAS.
- *Control of resources:* In Hanna Nassif the CBO controls resources, while a technical assistance team audits the account. Transparency is required in expenditure, towards the community and the local

government. Cheques are signed both by the city council and the CBO to provide transparency. However, still it was rumoured within the community that the CBO leaders were misusing funds. This was not the case: books were kept and audits took place.

10 min. Ongoing operation and maintenance

In Hanna Nassif, the CBO maintains the assets. They have been trained and tried both maintenance by hiring labourers directly, through subcontracts. Some key issues may be discussed with participants:

- Who should fund maintenance?
- Should labourers be paid?

5 min. Evaluation

The community should be involved in evaluation, at the very least to the extent that their opinions are sought about the impact of the facilities that have been provided. Participatory appraisal methods can be adapted for use in monitoring and evaluation. This was done in Hanna Nassif.

30 min. Structures within CBOs and NGOs that are suitable for participation in planning and infrastructure

Hanna Nassif is a heterogeneous community, with very poor and a few relatively rich people. 70% of its inhabitants are tenants. Many community conflicts have occurred (mention some). The leadership and membership of the CBO have a role to play in creating an enabling environment. It is a long process, but ultimately building consent and inclusion will pay a long-term dividend in terms of sustainability.

Discuss the following points:

- The need for NGOs and CBOs to be registered and to have a formal bank account and accounts that are open to inspection. Transparency is crucial.
- Possible organisational structures and systems. These might include the following:
  - ✔ *main committee, with elected chairman etc.*
  - ✔ *committee for construction*
  - ✔ *committee for maintenance*
  - ✔ *arrangements to deal with finance*
- The need for regular meetings and ways in which to ensure that these are well attended. (Emphasise the fact that meetings need to be about something that is of concern to community members).

- The need to provide good communication with the community. Discussion of decentralised structures involving sub-committees or other organisational arrangements for representing groups of up to say 100 households.
- Options for funding the operation of NGOs and CBOs. Members contributions, grants from government, grants from international agencies and NGOs. Local funding. Use example from HN. Stress the point that initiatives should not be dependent on external funding.
- The possibility that specialist staff will be required for some tasks, particularly those relating to long-term operation and maintenance. Voluntary labour for maintenance has the disadvantage that people may get demotivated, which the may result in the failure of the infrastructure and services.
- The link between CBOs and other interest groups in the settlement, such as women organisations.

10 min. From Hanna Nassif to a city-wide programme

Programme identification is more complex than project identification. A city-wide programme may be established by local government, NGO or donor agency. A consultative group or steering committee of all partners may be established to guide the process. PRA and CAP techniques can be used to identify needs of the different communities, or a process approach can be adopted. In a process approach, outputs are not specified but the participatory tools to identify outputs are specified instead (the process). A programme may also be a number of projects established through CAP/PRA techniques.

To set up a large scale programme, it may be considered to control funds outside the communities (by city council, NGO or otherwise), as was done in Sri Lanka. In Deventer, the Netherlands, a fixed amount is reserved for community initiatives at the settlement level.

Municipal governance and management become important in programme management: bureaucracy and corruption may hamper the programme.

4.4 Group work: capacity building of partners

15 min. Introduction

The three key players are local government, NGOs and CBOs. While we have discussed NGOs and CBOs in detail, we have hardly discussed local government.

Local government is the tier of government closest to people. It has various characteristics:

- Power to control land use, an issue central to upgrading of low-income settlement.
- Power to raise taxation. A second central issue. People are often unwilling to contribute for services, for which they are already paying taxes.
- Provision of infrastructure.
- Provision of services.
- Promote local economic and social development

Their role is changing, with growing attention to their role as an 'enabler', instead of a 'provider'. This we discussed when we considered partnerships.

Groups are asked to develop strategies to strengthen the roles of partners. One group will look at local government, one at NGO's and one at CBO's.

They will have to complete the following table:

Name of partner:				
Present role	**Strengths**	**Weaknesses**	**Future role**	**Capacity building**

60 min. Group work

The lecturer should support the groups, if needed.

30 min. Report on group work

Groups report back, while other groups and the lecturer can comment on the group work.

4.5 Role Play 1

Describe the role-play as written in the handout. Tell participants that they have to play their role as it is given to them, but may add details while they go along. They have 10 minutes to prepare their role. The role-play itself will last 45 minutes, after which the outcome will be discussed in a plenary.

Handout role-play 1

The purpose of this session is to reinforce the lessons learned to date about communication, community, and participatory methodologies. It will not necessarily lead to 'neat' solutions. Half of the participants are assigned clearly defined roles, which they had an opportunity to study and consider. These roles include a set of absolute constraints on their behaviour as well as some preferences. The remaining participants act as observers.

Details of Role Play

An outside person visits an informal settlement for the first time. This person might be an engineer or an architect/town planner, who has come to assess competing needs for assistance in improving infrastructure in the community, and to offer the community practical assistance. This might be similar to a role that course participants could find themselves in. The object is to come away with a clear plan for improving either drainage, sanitation, access or solid waste management but only one of these things, as available funds are limited, and it has to be an improvement that the community are agreed upon.

The objective of the exercise is to see the competing pressures people within the community are under, and the difficulty of coming up with a simple solution upon which everyone is agreed. It also shows the need for sensitivity and understanding in mediating these conflicts towards a technically 'best' solution in the circumstances, and according to community needs. These points will be explored in a debriefing session afterwards.

Your individual role is attached. You should describe it briefly when asked for an introduction. You must stick strictly by the definitions, but can add in preferences for services (if consistent with your role) as based on your experience of the initial project assignment site visit. You are all aware that there are plans afoot on the part of some influential people to create a CBO. The meeting has been hurriedly organised by a local health NGO.

Role of each player

Only provide the role to the player concerned!

Control Person: Donor Representative

You are employed by Irish Aid, which has limited budgets, but a strong policy of adopting participatory and labour-based approaches. It is your first visit to the settlement. You got lost on the way and are behind your intended schedule. You are under strong pressure to identify a potential project in this community so that it can be included as a provisional item in the latest project summary. Unless it is included Irish Aid will fail to meet its target of aid commitments. Your own area of professional

expertise is in agricultural engineering, though you have a reasonable understanding of infrastructure issues.

Your priority is to help the community arrive at a quick consensus of their problems and how Irish Aid can help. You would like them to quickly form a CBO with which you can work. Until a CBO has been formed you will not be able to add the cost estimate to your budget provision.

Role 1: Politician

Election is due in 6 months time. Sees upgrading as a possible opportunity to improve his/her popularity and so attempts to hijack the meeting for own ends. Wants the road improved from the main road to his constituency building in the community. Has made 'arrangements' for a CBO to be formed and remain under his effective control.

Role 2: Representative of health NGO active in the community

Worried about the open sewer which runs through part of the settlement, which is associated with serious seasonal flooding. Wants improved solid waste collection through extension of the authorities' service to the community. Lobbying hard for construction of a dispensary.

Role 3: Old man/settlement elder

Has lived in the settlement since it sprung up. Believes that change isn't needed, that systems work well as they are. If people choose to move into the flood-prone and unhealthy low-lying areas, that is their own problem. He doesn't really want new people anyway. He wants a situation where restricted access keeps trucks from driving through the settlement as a shortcut to the city. Suspicious of outside helpers, 'do-gooders' and worried that community will ultimately have to pay for improved services which they can't afford. Worried that religious divisions will find expression in the CBO, and lead to increased conflict in the community.

Role 4: Unemployed youth

Unskilled and untrained. Anxious for a job which the upgrading might bring him Suspicious of 'outsiders' who have made promises before, from which nothing has materialised. Is impatient and disaffected. Took part in the recent riots, though was not a leader.

Role 5: Representative of the local municipal authority

Under pressure from superiors not to grant the settlement recognised status. Reluctant to repair the water services to the settlement because the local authority does not have the resources to provide key services. Feels superior to the settlement dwellers. The residents represent a problem he does not really want to face.

Role 6: Woman with three children

Worried about the lack of water supply, and related health and safety issues for her children. The children have to walk along precarious roadways to school, and play near the open sewer. Nowhere safe for the children to play, would like to see a recreational space for them. She also needs employment and would want to work for construction and maintenance activities, if well paid.

Role 7: Trader with a stall

Has no formal permit, but has had a food stall beside the road for many years. He fears that his livelihood might be threatened by improvements to the road and vicinity, fears eviction from his site. Is also afraid that rents may increase if the settlement is upgraded.

Role 8: Person who makes money from carrying away waste by hand, and recycling household waste

Recycling and depositing waste by hand for local traders is his only source of income. New solid waste disposal stations might render him/her redundant.

Role 9: Local contractor

Wants to be involved in construction work. He does not have much work at present and is desperate to get contracts in order to stop his business going bankrupt. He is prepared to cultivate any politician or leader or influential person in order to get business.

Role 10: Local gangster

Wants to keep things as they are. Threatened by anything that might undermine his control. May have shared interests with his uncle, the local contractor.

Role 11: Well informed but quiet local resident

Possesses key information that 3 people have already drawn up a detailed plan to get themselves 'elected' as a CBO and to then systematically defraud the project. The resident is prepared to bring this to light in a meeting, but only if specifically given an opportunity to state any concerns.

5 Intractable problems

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Be aware of the scope for finding innovative, however imperfect, to intractable problems.

- **Skills**

  Have practised solving intractable problem in a systematic manner.

- **Attitudes**

  Confidence in own ability to find new and innovative solutions.

  Appreciate the importance of not taking criticism personally.

Handouts

- Lecture notes

Background notes

- F Davidson, G Payne (2000), *Urban upgrading manual*. Liverpool University Press.
- A Cotton, R Franceys (1991), *Services for shelter: infrastructure for urban low-income settlements*. Liverpool University Press.
- *Urban Upgrading: Options and procedures for Pakistan*, WEDC, GHK/MRM, 1993.
- *Handbook*: Module 5, Sections A to E and Case 3. See also the bibliography, A to E and Case 3.

5.1 Intractable problems and multi-disciplinary solutions

30 min. Introduction

Most engineers and planners concentrate on finding technical solutions for problems, which tend to have social, political, economical and technical causes. In a Tanzanian village, for example, residents were damaging the road in order to charge truck drivers for pushing their truck free. In this case, the solution for the poor condition of the road is clearly not technical (improve the road), but social and economic (pay villagers for maintenance or other income-generating initiatives). The dimensions of problems can be analysed through problem trees.

Participants are asked to brainstorm on options they consider for their project work. They are asked to list social, economic, organisational and financial (aspects of) solutions. These ideas will be based around the five technical areas already identified. Participants and the lecturer will add examples and solutions. The objective is not to end up with a comprehensive list, but to promote innovativeness.

Examples of innovative ideas:

- *Drainage:* Eucalyptus trees can be used as pumps, to drain the lower-lying area.
- *Roads:* a floating grass mat can be constructed over a swamp to construct a the road.
- *Water supply:* water can be purified with UV light in plastic bottles left out in the sun.
- *Sanitation:* sewerage can be mixed with earth and used as fertiliser.
- *Solid waste management:* recycle; use materials that do not need throwing away so often. CBOs to collect waste and households to pay fees.

15 min. Social issues

Targeting public works towards the poor

How can public works be targeted to the poor? For instance:

- How can we prevent a rent increase after an area is upgraded? Rent increases are likely to displace the poor. Ask participants for solutions. We have to understand the mechanism: rents increase if land values go up, which happens if status improves. For example: tarred roads may increase land values, footpaths probably not.
- How can we target employment creation in infrastructure provision towards the poor? A potential solution is to offer a low wage rate in order to exclude the better off. This may be a solution, but needs to be combined with others (proper selection procedures of labourers).

- How can we prevent that the CBO may be controlled by the literate and better off?

Dependency on paid labour

Some projects refuse to pay for labour, because they believe this may lead to local dependency upon monetary reward. In Lusaka, some projects pay for work, others provide food for work and other expect voluntary community labour. What is best? What are the conditions? In Tanzania, the 'Mto Wa Mbu' method of using by-laws to collect maintenance funds has been used successfully in order to pay for labour to do the work.

'User pays' or cross subsidies

Water tends to be more expensive for the urban poor than the rich. This may remain true in projects based on the 'user pays' principle. What is the ultimate goal of 'urban upgrading and is it sustainable? Would cross-subsidies work?

10 min. Organisational issues

Instability of CBOs

In Hanna Nassif, Mr Makongo wanted to become chairperson of the CBO to control construction funds. He prevented elections taking place through court cases, when he was not considered. The CBO did thus not democratically represent the community. This instability may be linked to lack of transparency and good governance within the CBO. What is the role of planners and engineers?

Corruption

Mention some examples from your own working experience, with potential solutions. For instance: In Benin fuel was being stolen. By adding a bright green dye to project fuel, the theft stopped immediately. In Uganda, the costs per kilometre road construction were collected. The results ranged from $5000 per km to $40,000 per km. By getting the PS to publish these figures, corruption was reduced. The Transparency International website on the Internet lists the most corrupt countries.

Political interference

Urban low-income settlements are 'voters banks' for politicians. They make empty promises to deliver services for free, interfering with community participation. In Kalerwe, Uganda (Case 2), a politician paid for the cleaning of the main drain, while the project stimulated community maintenance.

10 min. Economic issues

Land scarcity

Public infrastructure requires public land, which is very scarce in low-income settlements. Private owners may demand compensation and some households may need to be relocated. This increases expenses of projects tremendously. CBO's can prevent compensation.

Land scarcity increases land values. Pressure on informal settlements located centrally in urban areas may thus be immense, with land developers trying to obtain control. At the same time, high population densities mean that such settlements are 'voters banks', highly interesting for politicians. Any upgrading exercise will thus meet strong fights over land control and ownership, often with powerful outsiders involved.

Land ownership

Urban land is very valuable. In New Delhi, the policy aimed to sell land to the poor. However, due to corruption is was sold to land speculators. As a result, the land is not developed, while the speculators await increases in land value.

Unclear land ownership affects community participation. For instance, community operation and maintenance improves when they own their house (title deeds). In Zambia, unplanned settlements are legalised once they are improved.

Planning

Upgrading of low-income settlements is an expensive solution. Better planning to prevent unplanned settlements and provide sites and services would be cheaper. This is not the topic of this course however.

Poor maintenance

No capital investment should be made before there is a demonstrable capacity on the part of the beneficiaries to maintain that investment. However, politicians may push for construction to obtain votes ('vote bank' approach).

15 min. Policy issues

Many of the problems have more to do with policy than with technical issues. Examples include:

- Targeting mechanisms to benefit disadvantaged groups
- Land ownership
- Payment of labour
- Maintenance funding

In addition, various policies affect the situation in low-income settlements:

Macro economic and political decisions may increase the incidence of poverty. For example: in Zimbabwe, rural and urban poverty increased due to political fighting and poor economic planning. Urban low-income settlements are thus likely to grow.

Structural adjustment programmes have a significant and negative impact on poverty. Lately, however, social investments by governments and donors are increasing again – particularly in health, education and local economic development. Debt cancellation is being considered by lenders as well. This may have a positive impact on urban poverty.

Poverty alleviation programmes are set up in many countries to mitigate the effects of structural adjustment programmes. In many countries such as Kenya, however, urban poverty is undervalued and the programme is therefore mostly rural based. We may try to push for a more urban focus of such programmes. What are other programmes we can try to obtain funds from? Road funds (for road maintenances), donor and NGO policies, specific local policies.

5 min. ***Summary***

A problem tree analysis provides a basis to consider solutions. Solutions for low-income settlements are often multi-disciplinary and innovative. Planners and engineers still tend to concentrate on standard technical solutions.

5.2 Appropriate design options

The trainers should have information, including sketches and diagrams with them to illustrate the various options. They should also provide generic information on costs. A starting point in preparation is section A to E of the handbook and the documents mentioned in the bibliography under section A to E.

Typical options to be considered include:

Sector	Technical options	
Drainage	✓ Lined channels ✓ Unlined channels ✓ Open channels ✓ Covered channels ✓ Pipes	✓ Use road as drain ✓ Storage of storm water ✓ Scour checks ✓ Tree planting
Roads and access	✓ Varied standards ✓ Unpaved ✓ Gravelled ✓ Sealed	✓ Paving stones ✓ Other surfaces? ✓ Change vehicles rather than roads (seems difficult or do you mean NMT?) ✓ Whether to widen ✓ Whether to realign
Water supply and distribution	✓ Community managed ground water supply ✓ Supply by City authorities ✓ Collection from tanks	✓ Distribution to kiosks ✓ Distribution to yard taps ✓ Metering ✓ Pipes on surface ✓ Buried pipes ✓ Leakage problems
Sanitation	✓ Pit latrines ✓ VIP pits ✓ Other on-plot options	✓ Sewerage ✓ Interceptor tank systems ✓ None of above
Solid waste management	✓ Local transfer stations ✓ Privatised local collection	✓ Bury or burn on site ✓ Recycle

15 min. Solid waste management

A case study can be presented addressing various issues (see bibliography in handbook, section E):

1. Not In My Backyard (NIMBA): nobody wants a transfer station near their house.
2. Primary and secondary collection is needed, which probably requires a partnership between city council, the private sector and/or community groups (see handbook).
3. Training and capacity building are needed.
4. Recurrent funding is needed, either through taxation or household contributions. Fees need to be based on real costs, but fee rates may differ for rich and poor, as well as households and enterprises.
5. Recycling in an urban context only addresses a small part of the waste problem. It is interesting from an employment perspective.

6 Labour-based technology

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Know the theory and history of labour-based technology, including the related information on tools and equipment, worker conditions and comparative costing.

- **Skills**

  Be able to estimate labour and management requirements for a simple labour-based operation.

  Be able to consider when to apply labour-based technology.

- **Attitudes**

  Appreciate the potential technical, economic and financial benefits of labour-based technology.

Handouts

- Lecture notes
- J Antoniou, P Guthrie and J de Veen (1990), *Building roads by hand*. Longman.
- D Stiedl (1998), *Productivity norms for labour-based construction*. ILO ASIST.

Background material

- J. Liu, *Urban employment guidelines*, ILO.
- ILO (1993), *From want to work. Job creation for the urban poor*.
- Videos: Ghana, KTC
- Handbook: Module 6, Cases 1, 2 and 4.

6.1 Labour-based technology: step by step

The purpose of this session is to provide a solid foundation of knowledge about labour-based technology. To maintain the interest of participants, it will be important that this is presented in as lively and interactive a manner as possible.

In addition to overheads (or PowerPoint) use could be made of standard available training material, including the Ghana Feeder Roads or KTC video.

Theory to be covered includes:

5 min. Definitions

Labour-based technology generally refers to the highly managed use of labour in a well-planned manner, which ensures high productivity and predictable costs. The objective is to achieve a high quality technical result when working to appropriate standards, in a cost-effective manner.

This is in contrast to other ways in which labour can be used to create jobs, distribute food, or mobilise communities. Here, labour tends to be less well managed, costs are higher, and labour is used for activities such as haulage or compaction where the use of some minor equipment may be more cost-effective.

10 min. Typical features of LBT

Discuss the typical features of LBT:

- Work norms (or productivity rates) and incentive schemes
- Task work v Piece work
- Good tools
- Trained staff
- Majority of labour employed from locality
- Standard rates available - allows contractors to plan accurately.

10 min. Historical perspective

Ask participants to mention historical examples of labour-based technology:

- Roman roads and water supply
- British canals and railways
- World Bank labour substitution studies
- Pilot rural road projects
- Kenya Rural Access Roads

- Small contractor development
- Difference between African and Asian experience
- Overview of Asian urban experience
- Overview of African urban experience

30 min. Typical stages

The presenter can describe the infrastructure he/she is most familiar with in detail and add one or two others.

Rural roads

- Maintenance planning
- Setting out
- Clearing and grubbing
- Platform (may require material to be imported, hauled longitudinally or disposed of)
- Compaction
- Formation
- Compaction
- Drainage (mitre drains, erosion control, cross drainage etc)
- Surface (gravel, or other options) and compaction where appropriate

Pipe Laying

- Operation and Maintenance Planning
- Setting out
- Trench excavation
- Bedding material
- Pipe joining and laying
- Backfilling with compaction

Drainage etc

20 min. Show a video of LBT, for instance the Ghana Feeder Roads video and discuss it.

6.2 Site visit

This site visit will demonstrate distinctive features of labour-based technology including:

- A well-defined and costed programme
- Good management and reporting on site
- Use of individual or group task work where appropriate

- Clearly defined tasks
- Well motivated and trained staff and labour at all levels
- Labour drawn from the local community, either by a small contractor, or under a community contract.

A hand-out on the ongoing sites – with a description of the works and copies of the contract with design and bills of quantity- should be prepared.

The site visit should give the participants examples of all steps in construction and maintenance. Ideally, there should be relatively large numbers of labourers, though this may not be possible.

During the course of the visit the participants will be encouraged to look into the effectiveness and organisation of the work and to consider advantages and disadvantages of labour-based technology, community contracting and private contracting.

Participants may receive a questionnaire, with questions relating to:

1. Efficiency of work
2. Labour management
3. Management structure of the project. This will include consideration of :
   - Who is the client?
   - Should private contractors or community contractors be used or both?
   - What is the ideal scale of operations?
   - What training will be required by labour and supervisory staff?
   - What role if any will there be for community participation in supervision?
   - How could such a role be achieved in practice?
4. Contracts used

The field visit may be followed by a guided discussion. This will include discussion within community and private contractors on the best technical and management options for construction and maintenance. These discussions may be continued with local hosts, based on the questionnaire.

6.3 The urban application of labour-based technology

40 min. Describe a case study

Since session 6.2 illustrated *rural* labour-based works, the case study should serve to highlight differences between rural and urban LBT. It is easiest to describe the case study of the field visit or a case study that the lecturer knows. Go into depth on planning, staffing, site management, tools and equipment, specific problems encountered, task rates and labour payment, labour recruitment, etc.

In the remainder of the session, the case study can be referred to. The lecturer and participants may come up with additional case studies.

10 min. LBT in urban compared to rural works

Ask participants where rural and urban LBT differ. Key differences are:

- tight working space and relatively tight tolerances, particularly for drainage.
- the interaction between roads, drainage, water supply and solid waste management;
- the relative sophistication of potential labour compared with the rural context;
- the relatively low cost of some fabricated materials and specialist services;
- the relatively high cost of some materials that require haulage; and
- obstacles in the ground (solid waste and water pipes).

The local lecturer and the participants will provide examples of particular urban problems. This will result in a list of typical characteristics of urban LB works.

15 min. Specifics of urban LBT

Due to the high congestion, machines may not be able to enter the settlements. There is no technology choice. Then, what is specific about LBT compared to conventional approaches?

- Efficient use of labour (management intensive). In rural LB road works, labour productivity increased 14-fold after proper work studies. This was due to better material handling, use of appropriate equipment (particularly for hauling) and the use of task rates. Material handling in an urban setting may be different, since the cut and fill method may not work.
- Use of labour with appropriate tools and equipment.

Can participants mention examples, where labour is presently not used effectively in an urban setting?

10 min. Planning, monitoring and evaluation

Supervision of works and tight quality control are essential. Where the works are dispersed and relatively minor in nature, it is too expensive to involve Engineers directly in supervision, so what are the alternatives?

- Community foremen. How will training be carried out? Examples will be given (such as Case 2, Hanna Nassif). A training course for urban site supervisors has been developed by KTC. Draft training material is available.
- Technicians with community foremen. The Care project in Addis Ababa had one engineer and six technicians. They train community gangleaders and work in six settlements at the time (see handbook).

5 min. Tools and equipment.

In choosing appropriate tools and equipment, start with what is already available and can be maintained locally. The design standards of the infrastructure may also be affected by the tools available for maintenance. For example, if locally available cleaning rods are of low quality, it may make sense to select closer manhole spacing than would otherwise be considered ideal.

Labour management

If time allows, discuss labour management (see module 10.1).

5 min. Summary

Summarise the specifics of urban BT.

7 Money matters

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Know of a range of alternative approaches to cost estimating on LBCM projects.

  Know how compare costs between labour and plant based approaches.

- **Skills**

  Gain experience in estimating costs for LB urban works.

- **Attitudes**

  Appreciate the relative ease with which costs can be accurately predicted when using labour-based technology.

  More fully appreciate the potential financial benefits of labour-based technology.

Handouts

- Lecture notes
- Exercise
- Refer to handouts given in module 6

Background documents

- D Miles (1993), *Accounting and book-keeping*. IT publications, London.
- ILO (199?), *Improve your construction business*.
- UCLAS, ILO ASIST (1999), *Baseline study and mid-term impact assessment*.
- Fransen (1999), *Costs of community contracting*, ILO ASIST.
- Clifton, van Esch, Sept 2000. Contract performance in Hanna Nassif.
- Sohail, WEDC, Performance monitoring of micro contracts, 2000.

7.1 Costing CMLB projects

15 min. Introduction

This module deals with the financial aspects of labour-based, community-managed works. Refer to section 7 of the handbook. The key issues addressed are:

- Cost estimating based on standard productivities and unit costs
- The need for an assured source of finance for construction and maintenance
- The need for a rational policy environment (import duties, shadow pricing, ...)

Productivity can be expressed in terms of material moved per worker day, or in worker days per unit of material moved. For budget purposes, one needs to assume a certain level of efficiency in applying productivity norms (for example: 65% overall). The first step of cost calculation is to calculate the quantity of material to be moved. The second step is to divide this by the adjusted productivity norm. There is a tendency to undercost the true expense of using machinery.

60 min. Costing techniques

Discuss:

- Direct costs (labour, material, equipment, hand tools and transport)
- Indirect costs (risks, insurance, bond, supervisory staff, company costs)
- Profit/maintenance provisions
- Contingencies

Discuss the direct construction costs through a Bill of Quantity; calculation of volumes and task rates; calculation of tools and equipment; calculation of materials and transport. Use a simple example, for example the excavation for a drain. Let participants calculate simple volumes, task rates and transport costs.

7.2 Costing exercise

Each participant is asked to complete the following exercise. Good participants may help participants with difficulties.

Background

A large community managed water distribution project requires some 3000 m of trench to be dug in sandy soil in a highly congested settlement. Additional similar works will be required every 3 months in adjoining areas.

Working in pairs, compare the costs, benefits and risks of using

a) Paid community labour; or

b) A 2.5m wide tracked backhoe excavator

to undertake the bulk excavation trenching activity.

Additional information

Ditch width	0.6 m
Average ditch depth	0.8 m (range 0.5 m to 1.5 m)
Unskilled labour rate	US$ 1.5 per day
Unskilled labour task rate	4.8 m^3 per workerday
Skilled labour rate	US$ 2.0 per day
Foreman rate	US$ 5 per day
Surveyor rate	US$ 10 per day
Engineer rate	US$ 45 per day
Excavator hire rate	US$ 15 per hour of hire (1 day = 8 hours)
Excavator fuel consumption	US$ 8 per hour worked (incl. oil & lubricants)
Excavator output rating	US$ 30 m^3 per hour
Mobilisation charge	US$ 50
Demobilisation charge	US$ 50
Cost of basic handtools	US$ 10 per item

Each person will be asked to call out their answers, which will then be discussed in plenary. The attached spreadsheet is not intended to be a complete solution, but rather a demonstration of a systematic approach to costing which immediately highlights key features, while allowing assumptions to be readily challenged and changed.

Format and calculation of costing exercise

Quantities and basic calculations:

Bulk earthworks	0.6 m x 0.8 m x 3000 m =	1440 m^3	Labour output rating =	4,8 m^3/wd
Excavator hire	$ 15/hr 8 hr/day x 1.2 =	144 $/day elapsed	Excavator output rating =	240 m^3/dw
Excavator fuel	$ 8/hr * 8 hrs/day worked =	64 $/day worked		

Provisional assumptions

Labour efficiency assumed to be	65%	Thus budget productivity =	3,12 m^3/wd	Thus	462 w.days
Excavator efficiency assumed to be	50%	Thus budget productivity =	120 m^3/ed	Thus	12 exv.days
Assume labour gang to comprise	20 labourers under	1 Foreman			
Thus number of foreman.days =	5% of the number of	workerdays			

Labour-based (Incomplete calculation)

Activity	Quantity	Unit	Budget prod	Labour		Supervision			Equipment			
				Unskilled labour	Skilled labour	Foreman	Surveyor	Engineer	Excavator hire	Fuel, Oil	Transport to site	Handtools
Set out line and levels							10	2				
Bulk excavation	1440	m^3	0,32	462								40
Finishing to profile			(wd/m^3)									
Labour supervision					23	23						
Inspection								2				
Placing/removing shoring?												
		Resource inputs		462	23	23	10	4				40
		Unit costs		$1,5	$2	$5	$10	$45	$144	$64	$50	$10
		Cost (US$)		$692	$46	$115	$100	$180				$400

Total cost (US$) (excluding handtools) $1.134 $1.534 (including tools)

Plant based (Incomplete calculation)

Activity	Quantity	Unit	Budget prod	Labour		Supervision			Equipment			
				Unskilled labour	Skilled labour	Foreman	Surveyor	Engineer	Excavator hire	Fuel, Oil	Transport to site	Handtools
Set out line and levels							10	2				
Bulk excavation	1440	m^3	0,0083						12	6	2	
Finishing to profile			(ed/m^3)	25	25							10
Labour supervision						3						
Inspection								2				
Placing/removing shoring?												
		Resource inputs		25	25	3	10	4	12	6	2	10
		Unit costs		$1,5	$2	$5	$10	$45	$144	$64	$50	$10
		Cost (US$)		$38	$50	$15	$100	$180	$1.728	$384	$100	$100

Total cost (US$) (excluding handtools) $2.595 $2.695 (including tools)

7.3 Case study of Hanna Nassif

This presentation is based on the baseline study of Hanna Nassif, the study on the costs of Hanna Nassif phase I and the report of Clifton and van Esch with costs on phase 2 (see *background material*). The lecturer may also present another case study that he/she is familiar with.

In Hanna Nassif, the costs have been divided into indirect construction costs and direct construction costs. Indirect construction costs included overheads, staff, tools and equipment. Direct costs are labour, material, transport, profit, unexpected costs and losses. The costs have been explained.

Urban upgrading is considered expensive. But the cost per household or person is not very high (resp. US$ 60 and 20 in Hanna Nassif phase 1 for all infrastructure works). Due to the high congestion the interventions are thus not very expensive per person. Benefits of the community include less water borne diseases, less household repairs, higher labour productivity (due to less diseases).

8 Contract administration

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Have reinforced the theory of contracts learned in previous modules.

- **Skills**

  Have developed an eye for relevant detail in contractual arrangements.

- **Attitudes**

  Appreciate the importance of good contract administration in the management of urban upgrading works.

  Appreciate strengths and weaknesses of community contracting.

Handouts

- Lecturers notes.
- Tournee and van Esch, ILO ASIST (1998), *Community contracts in urban infrastructure works*.

Background material

- Miles (1996), *Towards guidelines for labour-based contracting. A framework document*. MART, ILO.
- ILO (1987), *Guidelines for the development of small-scale construction enterprises*.
- Kahn and Cotton (1998), *Community-partnered procurement*. WEDC and booklet on the performance monitoring of micro-contracts.
- Andersson, Beusch and Miles (1996), *Road maintenance and regravelling using labour-based methods*. Chapter 9.
- Clifton, van Esch (see before)
- Sohail, Report on community contracting (for solid waste collection) for Sustainable Lusaka Programme, ILO ASIST, August 2000 (includes community contracts for waste collection).
- Beusch, Simba, Winsvold, Draft Training material for urban site supervisors.

8.1 Community contracting

This section discusses the options for community involvement in infrastructure procurement. The community, or more commonly an organisation representing it, can be involved in any of the three roles of a contract (client/contract agency, engineer/supervisor and contractor):

- As the **client/contract agency** either because it has been responsible wholly or partly for financing work or because it has been co-opted as a partner by government. Faisalabad provides an example of the first (at least as far as tertiary projects are concerned) and Hanna Nassif of the second.
- As the **supervisor**. This is a rather less important and common role. The community is not involved in overall management but nominates people to assist in the supervision of work.
- As the **contractor**. A community organisation or group is awarded a contract by the client (usually the government). This may be to execute the work itself but sometimes it will be to take overall responsibility for execution with work sub-contracted to small contractors from within the community. In the latter case, the community is in effect operating as a management contractor. This process has some similarities to the processes that slightly higher-income people often use to have houses built. They purchase the material themselves but hire skilled labour for the actual construction.

Three kinds of community contracts can be separated: labour only, labour and material and full contract (see handbook).

20 min. Steps in community contracting

Discuss the steps in community contracting (see handbook and document on Tournee and van Esch, *Community contracting and ASIST bulletin number 7, centrefold*).

15 min. Advantages and disadvantages

The advantages of community contracting need to be spelt out. This may be done by the lecturer or in a plenary discussion. They include the following:

1. Resources are retained in the community. (In effect, the available funds are made to work twice for the community, first to provide the infrastructure and second to provide employment and support local businesses.
2. Quality is likely to be better since the community has an interest in seeing that the work is to a high standard.

3. It is easier to ensure that the work does not inconvenience community members.
4. Normally no compensation need to be paid to residents in case of demolitions or damage to assets.
5. There are possible cost savings because of the removal of high levels of contractors profit. There is a need to discuss the fact that this advantage is often more apparent than real, to explore the reasons for this (lack of community technical and management experience) and to discuss ways in which such drawbacks can be overcome.

The last suggests the need for technical assistance. Discuss the options, including assistance provided by government, the private sector and NGOs.

Emphasise the fact that private sector contractors may have a role. In order to retain resources within the community, it is better that these are relatively small and based within the community.

Also discuss disadvantages (see relevant documents).

25 min. Case studies

Discuss maximum three case studies (see handbook, Cases 1, 2, 5).

1. In Hanna Nassif the community has three roles within the management structure: (a) as client in that funds are routed through a joint community/government bank account; (b) as the 'management contractor' and (c) through a special Community Construction Committee as the sub-contractor that actually carries out the work.
2. In Kalerwe, Uganda, the client is the Project Management Team including elected community representatives from a number of zones. Local project committees act as labour contractors. This arrangement will work for bigger areas or for infrastructure that extends over a fair distance (for instance a road or a main drain). It has the advantage that there is more separation between the client body and the committee that acts as the contractor but it still has people from the community (elected representatives but others could be chosen) on the client body. In Kalerwe, maintenance was the problem, since the Project Management Team and the community groups were both temporary. When city council did not maintain the drains, the community lacked an organisational structure representing them.
3. In Sri Lanka, the government is the client and the community group the contractor. The community is however also involved in planning through CAP workshops and receive considerable assistance from the government. No clear maintenance structures were developed.

15 min. Content of a contract

Refer to the content of a community contract as specified in the handbook. Ask participants where and how the contract would differ from a standard contract. Some issues that should come out of the discussion are:

- The need for simple but comprehensive contracts.
- *Competitive bidding:* Community contracting procedures are not really compatible with competitive bidding procedures since the community will not normally have the knowledge and experience to bid against experienced contractors. There is therefore a need to develop systems and procedures for ensuring that prices are reasonable. One option will be for a third party (for instance a technical NGO or a government department not directly connected with the work, to develop schedules of rates to be used for estimating purposes.
- *Risk sharing:* How much advance payment is required? What about bank guarantees, insurance bonds or collatorals? Who takes the risk for mistakes?
- *Quality control:* training and technical support are needed.

8.2 Contractor development

25 min. Contracting procedures

Quickly present contracting procedures for small-scale contractors, to provide participants with a basic understanding of the concepts. Start with the tender invitation and bidding, appropriate contract documentation, contract administration, payment procedures, contract administration and the retention period.

Reference to the Community Contract in Urban Infrastructure Works, Tournée & Van Esch.

35 min. Promoting small-scale contractors

Discuss in more detail where and when small-scale contractors would require support. The following issues should come out of the discussion:

- Relaxation of the performance bond
- Advance payments: how much is appropriate for both partners?
- Credit schemes: what can be used as collatoral?
- Access to equipment, tools and material: an equipment bank?
- Reducing the retention period: who takes the risk?
- Timely payments: the key constraint for many small scale contractors

- Training
- Appropriate contract documentation: short but comprehensive.

Various examples exist in rural labour-based road works, such as Ghana. Remember that participants are not expected to become contract specialists.

10 min. Urban works in low-income settlements

There are various challenges of working in low-income settlements:

- How to deal with community-managed programmes?
- How to budget for unexpected costs, such as stabilising soil due to solid waste, transport of waste out of the settlement, reconnection of (illegal) water pipes.
- How to budget unknown works (such as gabions). Note that most contractors are building contractors.
- How to employ local workers? (what are procedures)
- How to work in highly congested areas?

20 min. Community contracting versus private contracting

Compare the use of community contractors and small-scale private contractors in Hanna Nassif, using the document of John Clifton. What are key differences in: cost, quality, work organisation, employment and quality control?

Also use the WEDC documents on *community partnered procurement* to identify the performance of community contractors in as far as time, cost and quality are concerned.

8.3 Role play: developing a community contract

The lecturer will introduce the role-play and explain that participants will be split into groups. Each group will receive their role, with one group acting as observers. The role-play will take place in a realistic environment –outside the classroom – with one member from each group allowed to speak. After the role-play, the lecturer needs at least ½ hour to discuss each role in a plenary session.

Handout

The CDA in Mbadeco Mburahati aims to construct 120 meter of gravel road with lined side drains (reinforced concrete). The road is 4 metres wide. A design and BOQ have been prepared and are attached.

The CBO has contacted city council, which agreed to fund the construction works. All parties have agreed and meet to prepare a community contract in a joint meeting, which clarifies the roles, responsibilities and risks of all parties.

The following parties are present in the meeting to prepare the contract:

1. *Site engineer (City Council):* The site engineer assists the CBO in construction works. He/she has prepared the BOQ for this contract and will chair the meeting.
2. *City Council planner:* represents the council, which will be the client of the community contract and the funding agency of the contract.
3. *CBO chairman:* represents the community and will carry out the contract.
4. *Worker:* One person has been asked to represent the workers from the community.
5. *Consultant:* The consultant prepared the design, provides quality control and prepares certificates of completion.

Objective of the meeting

To complete the attached contract, the meeting has to consider:

- Level and method of payment
- Bond/bank guarantee
- Working conditions (Selection of workers, insurance and working conditions)
- Quality control of works

Time: The meeting may last a maximum of one hour.

Roles of players (only handout to the relevant group!)

1. *Site engineer (City Council)*

   The site engineer has prepared the BOQ and will chair the meeting. He assists the CBO in the infrastructure works. The site engineer wants to keep control over the selection of workers, since he/she is afraid that the CBO would not be able to handle that well. He/she is against job rotation.

2. *City Council planner (client)*

   Represents the council, which will be the client and funding agency of the contract. The council has a limited budget, and would not like to spend more money on the contract than required. It wants a bank guarantee of the CBO in advance. At the same time, the council really wants to get the contract started even if it would cost more funds. The council is very concerned about transparency of the funds

within the CBO. It wants the CBO to select all workers, as would be done in any other contract.

3. *CBO chairman/community contractor*

   Represents the community and will perform the contract. The CBO chairman wants to have a 90% advance payment – since the CBO has no funds – and 10% 'maintenance funds' on top of the contract. He/she has heard that this is how community contracts were handled in Hanna Nassif. The chairman is also eager to have a proper job rotation system, to allow all job seekers to work at one time or the other.

4. *Worker*

   One person has been asked to represent the workers from the community. The workers want:

   - Higher wages: Tsh 1,500 instead of Tsh1,200 for unskilled labour
   - Insurance, first aid kit and drinking water at the site
   - A simple contract, since he/she doesn't understand the present contract, which is written in legal English language.

5. *Consultant*

   The consultant prepared the design, and will provide the quality control of the works. He/she will prepare certificates of completion. The consultant gets a percentage of the contract sum and is thus quite happy if the contract sum would increase. The consultant is concerned about advance payment to the CBO, since it would affect quality control. He/she wants to ensure that the contract is realistic, implementable and comprehensive.

6. *Observers*

   The observers should check whether the content of the contract provides a fair distribution of risks, covers all responsibilities and risks, and whether all parties had an equal say in the final composition of the contract.

9 Maintenance Options

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Know the basic technical, institutional and financing options for operating and maintaining typical urban infrastructure.

- **Skills**

  Gain experience in preparing a maintenance plan.

- **Attitudes**

  Appreciate the crucial importance of thinking through all aspects of the operation and maintenance of assets before making a commitment to upgrading.

Background material

- See literature in the bibliography under section A to E.
- *Handbook*: Module 9.

Handouts

- Lecture notes
- Saetrum, Kaseva, Folayan (1998), *Manual on maintenance of roads and drains, Hanna Nassif*. ILO ASIST.

9.1 Community maintenance

5 min. Introduction

Maintenance largely determines the life cycle of the created assets, once the assets are in maintainable condition. It can be split into routine, periodic and emergency repairs. These differ significantly, with routine maintenance the easiest but most neglected (see handbook and workbook).

Maintenance requires recurrent funding, a sustainable organisation with capable staff and a maintenance plan.

30 min. Funding

There are various recurrent funding mechanisms:

- Funding by City Council or Central Government: road maintenance funds; local development tax; etc.
- Funding by an CBO or NGO
- Combination of the above

A combination may be appropriate in certain conditions. The community may for example be able to fund routine maintenance, while periodic and emergency maintenance would be funded externally.

Discuss how CBO's can get funding from various sources, These include:

- Water kiosks may provide funding for water (and sewerage) operation and maintenance.
- Credit schemes can sustain themselves, if well managed.
- CBO's can work as contractor and bid for contracts. This may include maintenance and construction contracts as a registered contractor, or performing other contracts for the Council/Government.
- Road toll may be used to maintain roads and drains
- Solid waste collection may be funded from household contributions
- Other income generating schemes (such as tax collection).
- Part of maintenance can be done by unpaid labour, organised by the CBO.

Discuss how city council can commit funds for maintenance, while they often can not pay their own staff.

20 min. Organisation and staffing

Through a plenary discussion the organisational and staffing needs can be identified:

- *Training:* ask participants what training is needed for maintenance. Divide the training needs into technical; organisational; and financial.
- *Conflict management:* what happens if conflicts arise within the CBO? Will the organisation fall apart?
- *Accountability:* who will be the client, consultant and contractor?
- *Technical assistance:* who supports the CBO in the long run? How will the CBO decide what maintenance is required?

30 min. Maintenance activities and planning: the Hanna Nassif maintenance manual

The session will take the Hanna Nassif maintenance manual as its starting point to describe work involved in maintenance step by step, and the associated costs. The lecturer may take another case he/she is familiar with instead. The case should describe:

- Typical maintenance activities
- Tools needed
- Funds needed
- Work organisation (client, contractor and consultant)
- Yearly planning

10 min. Discussion

Each group will be asked to propose how, for their project, they intend to ensure effective operation and maintenance. Other participants will actively respond, so that by the end of the session each participant has a much clearer idea of the issues to be addressed.

10 Management

Objective

The objective of this module, taken in conjunction with its practical application in the project assignments, is that all the participants will:

- **Knowledge**

  Know basic management skills for each stage of the project.

  Be aware of their own strengths and weaknesses as managers.

- **Skills**

  Be able to select proper management tools.

- **Attitudes**

  Appreciate the importance of a constructive management style which seeks to draw the best out of those being managed.

Handouts

- Lecture notes.
- Tajgman and de Veen (1998), *Employment-intensive infrastructure programmes: labour policies and practices*, ILO.

Background material

- AD Austen, RH Neale, *Managing construction projects: a guide to processes and procedures*. ILO.
- NORAD (1996), *The logical framework approach*.
- IHS for EU (1999), *Sustainable Urban Development* (draft).
- UNCHS, UNEP (1997), *Implementing the urban environment agenda*.
- Handbook: Module 10, Cases 4, 5, 6.
- Videos: John Cleese, management styles; Sri Lanka.

10.1 Project management

5 min. Introduction

This course has focused on the many and varied relationships between those involved in community managed upgrading. The effectiveness of each relationship depends to a large degree on the way it is managed by each of the parties involved. This session looks at the following main areas:

- The project cycle
- Institutional set-up
- Management styles
- Management tools
- Labour management

The practical focus of this module is that it will help participants to decide on the management arrangements they will propose for their project assignments.

10 min. Project cycle

The project cycle of an urban upgrading project will briefly be discussed and all steps mentioned in the project will be included in this.

15 min. Institutional set-up of projects

Key questions to be asked to the participants include:

- Which institute is best placed to house CMLB projects? A project may be based within local government, CBO, NGO or external to all. Within those agencies, project management can either be integrated into line management or it can function as a separate unit. Discuss the advantages and disadvantages of options.
- What project staff is needed? The project team may be a small co-ordinating unit, partnering with other organisations to conduct the work, or it may be a larger unit conducting most work itself.
- Who controls the project team? A steering committee may be established that approves work plans and monitors progress.

The institutional set-up largely determines the ownership and control of the project, which largely impacts sustainability and replicability.

15 min. Video on management styles

There are three typical styles; we all tend to adopt all three, with one dominating.

- Autocratic
- Laissez-Faire
- Democratic

Show the video with John Cleese and ask for observations.

20 min. Management tools

Discuss the various management tools.

- Delegation of responsibility
- Meetings
- Reporting
- Conflict management: discipline and self-discipline
- Team work
- Training

15 min. Labour management

Discuss some key concepts of labour management:

- *Recruitment:* recruitment procedures should ensure that a sufficient number of labourers is available, forced labour is avoided and equal opportunities given. Job rotation systems may be applied. Key questions to be discussed are: when is unpaid community work forced labour? Is positive discrimination an option? How to target the poor?

- *Wages:* regulated wage levels are not always appropriate, while very low wages reduce productivity. How should wage levels be set for community managed projects? Food for work may be an option in some cases, 50% payment is advisable for public works (in general this is not done however). Works tend to concentrate on food insecure households which need the food and not cash payment... What are the effects on productivity?

- *Safety and health:* a first aid kit and drinking water on the site are key issues.
- *Rights of association:* how should community labour be represented?

5 min. Questions

10.2 Programme management

10 min. Introduction

Refer to the handbook. Define a project and programme, using a project (such as Hanna Nassif or Kalerwe) and a programme (Sri Lanka, Netherlands) as examples. A project can be seen as a brick and a programme as a wall. A wall is more than a number of good bricks. Ask participants how a project can be turned into a programme. What more is needed?

- *Political goodwill*
- *Good governance:* inclusive, open, transparent and accountable systems of decision making (laws and policies).
- *Good management:* management is how governance is put into practice. This involves institutionalisation of the approaches, training, etc.
- *Integrated planning:* integrating community planning with city level planning.
- *Municipal financing:* sufficient and transparent funding

15 min. From policies to projects

Explain the link between policy and projects, through laws, work plans and programmes. Awareness creation and monitoring and evaluation tools are required to support the process. Policies should be SMART:

- Straight forward
- Manageable
- Appropriate
- Relevant
- Time related.

Discuss in a plenary session what the components of a SMART CMLB urban upgrading policy would be.

10 min. Good governance and management

It is being realised that governments do not manage on their own. They need to collaborate with the private sector, NGOs and CBOs to provide services. However, partnership approaches require proper decentralisation, not only of implementation but also of policymaking and finances. In many countries this is still an ongoing process. It also requires good governance and management. Change has to start somewhere and it may well start within a successful community-managed initiative.

30 min. Sri Lanka: video

Show the video of community contracting in Sri Lanka and ask participants to comment on the programme. Is it sustainable and efficient?

10 min. Other examples

Other examples can quickly be mentioned to illustrate that large-scale programmes have also been successful in Africa. For example: Care Ethiopia project in Addis Ababa; Push project in Zambia; Sustainable Cities Programme; and the Community Infrastructure Project in South Africa.

10 min. Conclusions

Moving from pilot projects to programmes is very difficult.

Some programmes aim for *direct poverty alleviation* (PUSH, Care Ethipia, Sri Lanka). The programme is then primarily a number of good projects. Sustainability will be reduced, since limited attention is given to policy development, lawmaking and capacity building.

Other programmes aim for *policy development* (SCP, Nairobi Informal Settlement Coordinating Committee). The programme is then primarily good governance and management, with limited (short-term) impact on the poor.

Linking policy development and direct poverty alleviation proves to be difficult. There is a huge gap between policy makers and implementers. The case from the Netherlands (case 5, handbook) illustrates a successful link. However, even here the community only influences minor decisions at settlement level.

10.3 Visit to City Council

The participants will visit a relevant initiative within City Council. The objective is to illustrate the strengths and weaknesses of city councils in managing projects and programmes. This also provides participants with information on their project assignment. The visit may be structured as follows:

1. Brief explanation of the structure of City Council
2. Explanation of the project and how it is managed
3. Guided tour through City Council
4. Explanation of partnership arrangements with NGO's and CBO's
5. Questions by participants

11. Closure

11.1 Individual action plans

The participants will be asked to complete action plans, included in the workbook. They may have started completing the forms at an earlier stage during the course.

When participants present their individual action plans, they will be asked to mention one specific action from each of the components of the action plan. These components in the action plan are:

- Consolidation and personal study
- Training colleagues
- Specific initiative in place of work
- Specific initiative outside place of work

11.2 Course evaluation

It is important that a clear and structured opportunity is given for the course to be evaluated (on standard forms) by each individual, as well as being discussed collectively. Daily evaluations may be made, as well as end of course evaluations.

11.3 Formal Closure

The closure should once again illustrate the importance the government attaches to CMLB upgrading of urban low-income settlements. In addition, it provides an opportunity for the course guide and course participants to describe key lessons learned. The closing session may be followed by a farewell lunch.

Project assignment

This section provides information on the 'Project Assignment' component of the training course. The information should be read in conjunction with the workbook for participants. The key objective of the assignment is to allow participants to practise what has been learnt and to learn from mistakes. Lecturers should therefore NOT provide ideal information and full-time assistance. Participants should struggle to find information and to develop innovative ideas.

Steps in the project assignment

- Introduction
- Step 1: Justification
- Step 2, 3: Problem identification and data collection
- Step 4: Partnerships
- Step 5: Intractable problems
- Step 6 and 7: Costing labour-based options
- Step 8: Community contracting
- Step 9: Maintenance
- Step 10: Management
- Develop a project document

Introduction

Information needed

- Workbook
- Maps and key data on the selected settlement
- Information on the town

Preparation of project work

The project work requires careful preparation. First, a settlement should be identified that is poor, small and challenging, with a rather strong community organisation. Second, data should be available on the city and the settlement, including social and economic data, costing of infrastructure and services and detailed maps (1:1000).

10 min. Introduction to the 5 projects and the workbook

In the project assignments, the participants will develop a small upgrading project that meets the perceived needs of the community. They will work on the project as a consultancy team, with the lecturers as the critical team leaders.

An important part of the exercise is to develop skills required to hit tight deadlines while lacking the resources or information required to do the job 'properly'. They will be required to make the best decision possible in the circumstances while remaining aware of the possible areas where later adjustments may be required. Sometimes all the information required will not be available and participants will be required to make judgements based on experience. Where this is the case, the important thing is to be able to set out what the assumptions are and why they were adopted.

It cannot be over-stressed that this is **not** primarily a technical exercise, though there will be some technical content. At every stage it will be necessary to think beyond the technical issues into the underlying social issues that will ultimately determine the success or failure of the 'project'. Residents should be fully involved throughout.

In carrying out these assignments, participants will work in small groups. Where possible each group will include an engineer and a planner. Each group will be doing different but related assignments, based so far as possible on a small area of 1-2 ha (possibly smaller or larger depending on precise activity) within the context of the broader settlement, for which some but not all data is already available.

The five projects will relate to:

A Drainage

B Roads and access

C Water supply

D Sanitation and sullage disposal; and

E Solid waste management

5 min. Selection of groups

The selection of groups, with a fair distribution of planners and engineers, is crucial. Groups must also be of equal strength and represent the various countries.

10 min. Process

Go through the process as described in the workbook and link it to the modules. Stress that project development is not a linear process, since the outcome of later steps may affect earlier steps. The number of problems and solutions may overwhelm and confuse participants at times. The golden rule is therefore to 'keep it simple'. 'Real' projects typically take a year or more to prepare. Participants are required to do this in less than 3 weeks.

15 min. Guidelines

Take the participants through the guidelines mentioned in the workbook. *Stress that the participants should not raise expectations in the community!*

10 min. Outcome of project work: a project document

Using a simplified example as a reference, participants will be introduced to the project document. A project document is structured as follows (following UNDP format):

1. Context
    a. Description of the sub-sector
    b. Country strategies
    c. Prior and ongoing activities
    d. Institutional framework
2. Justification
    a. Background
    b. Problems to be addressed (start of project)

   c. End of project situation
   d. Target beneficiaries
   e. Reasons for assistance
3. Strategy: labour-based technology, community-participation, ..
4. Institutional arrangements
5. Objectives, outputs, activities
   a. Long term and immediate objectives: technical and social
   b. Outputs for each objective
   c. Activities for each output
6. Inputs (budget)
7. Sustainability
8. Special considerations (gender; environment; …)
9. Prior obligations and risks

An important feature to look out for will be the balance struck between physical outputs and the processes used to reach those outputs. The institutional capacity expected to be developed through those processes should be considered to be an important output in its own right.

All groups will prepare information needed to complete the project document. The document itself will be written throughout and will be finalised on the last days of the course.

Due to time constraints, it is advisable not to introduce the logical framework at this stage. It would confuse participants. It is dealt with in week 3.

Step 1: Justification

Information required

- Statistics about the town and settlement
- Social and economic background data
- Library with key documents mentioned in the participant's handbook.

The data to be provided to the participants does not have to be perfect. It may include references to a library, where participants have to search for statistics. It may also be hidden in available documents given to participants.

5 min. Introduction

Based on theory and statistics, participants have to justify a CMLB project. They still lack data about the settlement itself and can only provide a theoretical justification. In the project document, this assignment addresses aspects of the context and justification. Discuss explanation mentioned in the workbook.

Reporting. Participants can report back on overhead sheets or flipcharts. Explain the need to use large and clear writing, using key words only.

Note: *introduction of the project work and of step 1 will take almost an hour. The trainer may consider to start ½ hour later on the next day to give participants more time for preparation. One hour should be enough for group presentations and discussion.*

45 min. Group work

Participants will need some time to settle in their group and study the data they have received. After that, the exercise should not take more than 45 minutes.

90 min. Presentations

Each group presents its findings, which will be put on the wall. All groups may comment, in order to end up with a key justification of the project. This can then collated into the section *1. Context: a. Description*, of the project document. The lecturer may for example circle all key data to be mentioned in the document. After the session, the lecturer or a group of participants collates all information and outlines the section of the project document.

Step 2, 3: Problem identification and data collection

Information/tools needed

- Maps of the settlement
- Social and economic data of the settlement
- Measuring tools

10 min. Introduction

This exercise is the key to the project work and requires careful preparation by the groups. In a one-day visit, they will have to identify key problems and collect data to solve the problems. The exercise should be as participatory as possible. Two community groups should be available, preferably a CBO and women group. Both have their own priority problems, which are likely to differ.

Discuss the objective and activities as described in the workbook with the participants. Stress that participants are expected to use the participatory tools introduced today in a structured manner, without dominating the community. Mention that the participants should not raise expectations, by stressing that it is a training exercise.

Inevitably, additional information will be required as the project assignments progress. Not all information will be available, in which case participants will have to guess. Some of the information will be provided in advance to everyone. Other information will be available only if it is asked for. Even then, some information may be withheld, even if it is available to the course organisers. This is intended to reflect the reality of trying to track down information. In this situation, participants should state/discuss their assumptions with the trainers, and proceed on that basis.

30 min. Preparation

Groups should prepare checklists for their field visit. Lecturers should accompany the groups.

1 day Field visit

Lecturers should attend the groups and correct their behaviour when they forget their 'moderating' role. The community members should provide the key information, linked to their observations. Lecturers should also focus the work of the groups to their exercise. For example: do not go into detail during the first observation.

90 min. Plenary presentations

Groups present their findings in the plenary and lecturers and other groups can comment. After all presentations, the session will agree roughly on priority problems for the community and key problems for each group. These two may conflict. For instance, sanitation is not a priority, while the group may still be asked to develop a plan.

All problems should be integrated and provide a clear poverty focus and target group. This may require some adjustments in the problems the groups have identified. This integration is crucial in ensuring that groups continue working in a focused fashion.

The output of all groups provides input in the project document: Section *2 (b) problems to be addressed* and *2 (e) Target group of the project document*. The key content of the sections can be concluded in plenary and added to the project document.

Step 4: Partnerships

Information required

- Data on the partners (city council; NGO; CBO; other partners).
- Library with information on City Councils, NGOs and CBOs

10 min. Introduction

Take the participants through the objective and activities mentioned in the workbook. The aim is for participants to reach the best partnership arrangements and participation techniques. Ideally, answers should be reached through a participatory community action planning process. Given the short time available in the workshop, this step will have to be shortened.

Participants should be referred to the case studies of Hanna Nassif, Kalerwe and others, which provide examples of possible partnership arrangements.

90 min. Group work

Groups work on their assignments, while the lecturers provide information and support when asked.

90 min. Plenary session

All groups present their findings in a plenary session. Then, the findings will be integrated into one general partnership and community participation approach for the project, with specific components on roads, drainage, etc. This provides input in the section *3. Strategy* of the project document.

By now, there should thus be a clear understanding of the priority problems, partners and participation arrangements. The lecturer should make sure that these are agreed upon by all participants.

Step 5: Intractable problems

Information required

- Available construction materials
- Costs of equipment (renting/leasing), tools, materials, labour
- Library

10 min. Introduction

Take the participants through the information mentioned in the workbook. The crucial element will be for participants to consider innovative options addressing the problems. This requires a brainstorming exercise. All elements of problems and solutions should be considered. For instance, is the proposed solution politically viable? Can we expect side effects? Who will benefit? While this exercise requires careful thinking, it does not require detailed planning and costing.

90 min. Group work

After the introduction, the groups will start working. Lecturers will support the groups, if and when required.

3 hours On site: data collection

The groups are likely to need more data to work out their options. They will visit the site to collect data.

There may also be various issues remaining from step 1 to 4 requiring additional data. It would be helpful if some CBO/NGO members would be available to answer questions.

90 min. Plenary session

Groups will present their options in the plenary session, while other groups will comment. The selected options of each group will be compared to judge whether they provide an integrated solution for the problems at hand. Some of the questions to be asked are:

- Is the target group clear?
- Do the selected options strengthen each other (for instance: will access be provided for solid waste collection)?
- Do all interventions result in poverty alleviation through employment creation, better living and working environment and capacity building?
- Can local partners implement the options?
- How can we further strengthen the project?

The outcome of the plenary session results in input in the project document sections *2(c) End of project situation* and *3. Strategies* of the project document. The addition can be made by the lecturer, or by (a group of) participants.

Step 6, 7: Costing labour-based options

Information required

- Costs of available equipment, tools, materials and labour.
- Labour productivity.

Ideally, the information should take the form of costed schedules or bills of quantities, based on work that has already been done in the area. It may be helpful to develop schedules for frequently-recurring items such as manholes, chambers and pit latrines. In effect, these can be like mini-bills of quantities with the average quantities set out on a form with space for the insertion of unit costs and the calculation of overall costs.

10 min. Introduction

The aim is to calculate the employment creation and cost the selected options. Only calculated estimates are required and an error margin is acceptable. It is easy to overspend your time on calculations, which is not the prime aim of the exercise. The various project activities are mentioned in the workbook.

3 hours Group work

After the introduction, the groups will start working. Lecturers will advise the groups. Groups may spend too much time on the costing of their options. It may be advisable to continue the plenary presentation for an interim report of each group. They may continue to work over the weekend or next week, though not much spare time is available.

90 min. Plenary session

In the plenary session, the groups will present their project costs for each of their intervention, without going into detail. Differences with the estimates in step 5 should be explained. Lecturers and other groups may ask questions.

Jointly, a draft project budget will be prepared. This will be finalised once dealing with management arrangements. At this moment of time, the sole objective is to judge the viability of the proposal: is it within budget? If not, where can we reduce costs? How can we better focus the project?

Project costs

	Calculation	Cost
Direct construction costs		
▸ Access interventions		
▸ Drainage …		
▸ ……		
Total direct		
Capacity building	Make a guess. Will be worked out later.	
Indirect costs		
▸ Maintenance fund (10%)		
▸ Project team	Make a guess	
▸ Design (10% of direct)		
▸ Office space	For free	
▸ Equipment/transport	Lump sum	
Total indirect		
Contingency	10%	
Total		

If project costs are too high, a painful selection is needed: which activity should be reduced or deleted? The session may then take a long time.

The costs can be added to section *6. Costs* of the project document. The employment creation to section *3. Strategy*.

Step 8: Develop a community construction contract

Information required

- Library with case studies
- Lecture notes and participants' notes
- Examples of at least two community contracts available for course participants to study and use as guides (For example Hanna Nassif and SLP contracts). These contracts should represent rather different approaches.

10 min. Introduction

Discuss the content of the workbook with participants. A community contract is part of the partnership arrangements. The aim is to identify the role of each partner in construction and the required capacity building in the process.

The participants will complete the format presented in the workbook. They will not prepare a project document. This will be practised in a role play not linked to the project assignment.

45 min. Group work

After the introduction, the groups will start working. Lecturers will advise the groups.

Plenary session

The plenary session takes place after step 10.

Step 9, 10: Operation, maintenance and management

Information needed

- Maintenance costs of infrastructure
- Hanna Nassif maintenance manual
- Library with case studies

10 min. Introduction

Operation and maintenance

Participants are expected to outline an operation and maintenance plan. It is important to stress the need to consider whether the various parties are willing and able to carry out the responsibilities assigned to them under the maintenance plan. Where 'community-managed' facilities link with those of government, it will be important to consider the formal arrangements for the separation of responsibilities.

The lecturer should discuss the objectives and activities mentioned in the workbook with participants.

Management

Management tasks have already been considered in partnership arrangements, community contracting and maintenance. However, issues dealing with ownership, control, capacity building and replication need to be clarified.

Some issues to consider are mentioned in the workbook.

180 min. Group work

After the introduction, the groups will start working. Lecturers will advise the groups.

90 min. Plenary session

In the plenary session, the groups will present their findings. Lecturers and other groups may ask questions. In the meantime, the input may be added to the section *3. Strategies* of the project document (community contracting), section *4. Institutional set-up* and section *7. Sustainability* (capacity building; operation and maintenance).

Preparation of Project Document

This step is scheduled to take a full day, which is still insufficient. The lecturers will thus have to keep tight time schedule, while allowing maximum ownership by participants of the process.

45 min. Project document: state of affairs

The lecturer should re-introduce the structure of a project document, without addressing the logical framework yet. A considerable amount of information has already been collected in step 1 to 10 of the project assignments. The lecturer should quickly review this information in the structure of a project document. Preferably, the information should be distributed to participants beforehand (one day in advance). The following information is available:

1. Context
    a. Description of the sub-sector. *From step 1.*
    b. Country strategies. *From step 1.*
    c. Prior and ongoing activities. *From step 1.*
    d. Institutional framework
2. Justification
    a. Background
    b. Problems to be addressed (start of project). *From step 2.*
    c. End of project situation. *From step 5.*
    d. Target beneficiaries. *From step 2.*
    e. Reasons for assistance.
3. Strategy
    a. Community participation. *From step 4.*
    b. Partnerships. *From step 4.*
    c. Intractable problems. *From step 5.*
    d. Labour-based technology. *From step 6.*
    e. Community contracting. *From step 8.*
4. Institutional arrangements. *From step 10.*

5. Objectives, outputs, activities (LATER)
   a. Long term and immediate objectives: technical and social
   b. Outputs for each objective
   c. Activities for each output
6. Inputs (budget). *From step 7. To be updated.*
7. Sustainability. *From step 9 and 10.*
8. Special considerations (gender; environment; …)
9. Prior obligations and risks

It is important not to overrun time at this stage! The quality of the draft project document largely depends on the participants. With a good group, the document may be thorough, but a weaker group may end up with a rather sketchy document. It is therefore recommended to spend no time trying to develop a perfect project document. You may however point out where the document is weak.

45 min. Explanation of a logical framework

The lecturer should explain the logical framework (see workbook). The example mentioned in the workbook may be used, or the lecturer may present a logical framework that he/she is familiar with. Keep it simple, the approach will be new for most participants and hard to grasp!

In a plenary, the participants should agree on a development objective and immediate objectives (see workbook). Ask participants first about components of the development objective and then of immediate objective (technical, social economic, institutional).

Proposed objectives may be:

- *Development objective:*

  Alleviation of poverty in urban low-income settlements in (mention town) through improved and sustainable infrastructure and services, enhanced employment opportunities and improved living conditions.

- *Immediate objectives:*

  1. *At the end of the project, the CBO of (the area) in partnership with city council are able to provide and manage community services.*
  2. *At the end of the project, improved sustainable community managed infrastructure and services using labour-based methods will be available.*
  3. *At the end of the project, Mention number or percentage) in the area will benefit from employment and income generating activities.*

The immediate objectives should be attainable and specific. What is the time frame for the project?

2-3 hrs Group work: outputs, activities, assumptions and indicators

Each group will identify outputs, activities, assumptions and indicators for one objective. The groups should be moderated by lecturers, experienced in developing logical frameworks.

In the first instance, the groups should concentrate on outputs, assumptions and indicators. This is likely to take the full time, if lecturers keep the initiative with the participants (as they should). Only if groups have time to spare the activities should be considered.

If required, the work may take two sessions of 1½ hours instead of one.

1½-3 hrs Plenary sessions: agree on logical framework and project document

Each group work should be presented by a participant and agreed upon by the plenary. The logical framework is then ready and can be attached to the project document. There are likely to be some gaps in the document, which can be completed if time allows. A list of attachments should be added (in this case the outcome of the group work should be attached, as well as maps).

Course management

This section guides the course organisers through the preparation, implementation and evaluation of the course. Outlines of checklists are given. However, each course will have its own peculiarities, which requires specific attention.

Management issues

- Selection of a course guide, administrator and lecturers
- Course participants and fees
- Preparation of the course
- Social activities
- Stationery and tools
- Library
- Handouts and videos

Course management

1 Course guide, administrator and lecturers

The course should be run by a course guide, assisted by a course administrator for logistical and financial matters. Since the course is very intense, it is advisable to appoint a third person in charge of the project assignment. This person and the course guide can function as key resource persons, providing most lecturing inputs. External lecturers may be attracted if and when required. While this may provide some variety for the participants, it makes course co-ordination more complicated.

The course guide, administrator and lecturers should co-ordinate through informal and formal meetings. Clear roles should be agreed upon.

2 Course participants and course fee

The target group of the course are engineers and planners responsible for infrastructure provision and services in urban low-income settlements. The most appropriate number of participants is 15 to 25: a lower number would make the course expensive and teams for project work small; a larger number would make it difficult to manage the course.

The course fee should be based on actual costs. For instance, the pilot course charged US$ 2,000 per participant for two-weeks, which covered all costs, including hotel and accommodation, conference facilities, international consultant and local inputs, and marketing. Not included was considerable ILO time.

3 Preparation of the course – a checklist

The course requires careful planning and preparation. This section provides a checklist, but the course guide is advised to expand the list and add specific requirements of the course.

Checklist

Three – six months in advance

1. Agree with host organisations on the date, venue and course fee
2. Market the course
3. Make and distribute brochures
4. Agree on the course guide, administrator and lecturers
5. Book hotel and conference facilities (one large room and three small rooms)
6. Prepare a budget and payment arrangements for participants

One – three months in advance

7. Arrange opening and closure and invite VIPs
8. Select a settlement for the project assignments
9. Collect information on the project (map 1:1000; social and economic data; rainfall statistics; data on CBO's and NGO's; soil type; traffic records; ground water level; population data and growth rate; water pressure in pipes; waste composition; market for recycling).
   Note: *not all information will be available. This is no problem.*
10. Collect information on the costs of labour, material, tools and equipment (renting/leasing)
11. Arrange transport
12. Arrange social activities
13. Brief lecturers through lecturers notes and handbook and through meetings
14. Prepare a welcome pack for participants
15. Send a briefing note to all participants (including data they have to collect. See section 2.1)
16. Arrange finances: bank account, advance funding required, payment of participants, etc.

One month – start course

17. Collect all participant handouts
18. Purchase all stationery required
19. Arrange the exhibition
20. Arrange a library
21. Finalise the welcome pack
22. Arrange pickup from the airport for all participants
23. Ensure that you have sufficient funding
24. Ensure that lecturers are prepared
25. Final check of all arrangements

4 Social activities

Social activities help to create a conducive learning environment. They may also strengthen learning objectives. For instance, informal contacts between lecturers, participants, local resource persons and residents of low-income settlements may stimulate ideas.

The following social activities are recommended:

- BBQ on day 1 of the course, possibly inviting local government, CBO and NGO representatives. This will 'break the ice'.
- Lunches, drinks and dinners within low-income settlements, jointly with CBO and NGO members. However, take care not to overload the programme: field visits are very tiring.
- Social outings in the weekend.
- Farewell lunch.

The resource persons are urged to meet informally with participants during breaks and evenings.

5 Welcome pack

The welcome pack for participants may contain:

- Bag
- Handbook
- Workbook
- Ballpoint pens (black, blue and red)
- Two pencils
- Ruler
- Eraser
- Pencil sharpener
- Ring binder for handouts
- Front cover of ring binder
- 50 pages lined A4 paper
- 30 pages squared A4 paper (for designs, mathematics)
- Brochure on the course
- Map of city
- Brochures of host organisations

The welcome pack can be provided upon arrival, to allow participants to start reading the handbook and workbook.

6 Stationery and tools

The course is likely to need the following stationery and tools:

- Four flip chart stands
- Flip chart paper (four rolls)
- Transparencies (two boxes – for use in printer. One box for colour)
- Photocopy paper (5 reams)
- Power extension leads (2)
- Brown display paper (50 sheets)
- Camera film (at least 2)
- Diskettes (10)
- Map of Africa (1)
- Tape (6)
- Overhead projector pens (10 in black, blue, red)
- Paper A1 plain (25)
- Paper A3 plain (25)
- Paper clips
- Paper punch (2)
- Scissors(3)
- Stapler and staples (3)
- Tipp-ex (3)
- ZOPP boards (5)
- ZOPP box (1)
- Camera (1)
- Glue (6)
- Pins (many)
- Meta cards (>150)
- Index cards
- Posters
- Measures tape (4 of 30 meters)

7 Library

The library is crucial for the project assignment. It should be easily accessible and should contain the following:

- All documents mentioned in the bibliography of the handbook
- All relevant documents on the host country and town. In particular, social and economic data and data on ongoing activities.

8 Handouts and videos

Handouts should be collected before the course commences. Recommended handouts are:

Documents
1. Handbook
2. Workbook
3. Welcome pack
4. ILO (1993), *From want to work*
5. ILO (1998), *The future of urban employment*
6. Liu J (1998), *Guidelines for urban employment*, ILO
7. J Antoniou, P Guthrie and J de Veen(1990), *Building roads by hand*, ILO, Longman
8. D Stiedl (1999), *Productivity norms for labour-based technology*, ILO ASIST
9. D Tajgman and J de Veen (1998), *Employment intensive infrastructure programmes: labour policies and practices*, ILO
10. J Tournee and W van Esch (1998), *Community contracts in urban infrastructure works*, ILO ASIST
11. Saetrum, Kaseva, Folayan (1998), *Manual on maintenance of roads and drains, Hanna Nassif*. ILO ASIST

Note: *only one of number 3, 4 and 5 is required.*

The course may select other documents, depending on the availability and personal choice.

A number of videos may liven up the course:

Videos
1. **Labour-based technology: Ghana Feeder Roads Programme**
2. KTC video
3. John Cleese: Management styles.
4. Sri Lanka: community contracting

More videos may be added.

Overhead sheets

Draft overhead sheets are given for each module, when available. Lecturers are advised to adjust them to suit their own experience. The sheets are available in PowerPoint presentations on the CD-Rom as well.

PowerPoint presentations available

Module 1: Course introduction

1.1 Course introduction

Module 2: Life in a low-income settlement

No presentations available

Module 3: Community participation

3.1 The urban community and their organisations (taken from another course)
3.2 Participatory tools for problem analysis and feasibility study (summary)

Module 4: Partnerships

4.1 Partnerships with NGOs and CBOs (taken from another course)

Module 5: Intractable problems

5.1 Intractable problems

Module 6: Labour-based technology

6.1 Labour-based technology: historical perspective
6.2 Road improvements by LBT
6.3 The urban application of LBT

Module 7: Money matters

7.1 Cost estimating
7.2 Cost of the Hanna Nassif project

Module 8: Contract administration

8.1 Community contracting

Module 9: Maintenance

No presentation available

Module 10: Management

10.1 Urban management
10.2 Labour policies and practices with contracting

Project assignment

Introduction to assignment

Overheads

Module 1: Course introduction

1.1 Course introduction

Introduction: objective

Create knowledge, skills, attitudes to

- Work with communities
- to find appropriate and sustainable solutions
- to upgrade urban low-income settlements
- by labour-based methods

Introduction

Jan Fransen	Dr Kombe
Eng. Kaseva	Sheuya
Hamish Goldie Scot	Dr Meshack
David Mason	Eng. Kasure

Introduction: methodology

- Lecture-discussions
- Group work and tasks
- Project work: *prepare a project document*
- Field visits
- Action plan

full exposure

Introduction: modules

Introduction: social activities

- Monday: barbecue
- Tuesday: dinner by CBO (field work)
- Thursday: dinner in Hanna Nassif
- Saturday: town
- Sunday: Zanzibar - *WHO WANTS TO GO?*

Overheads

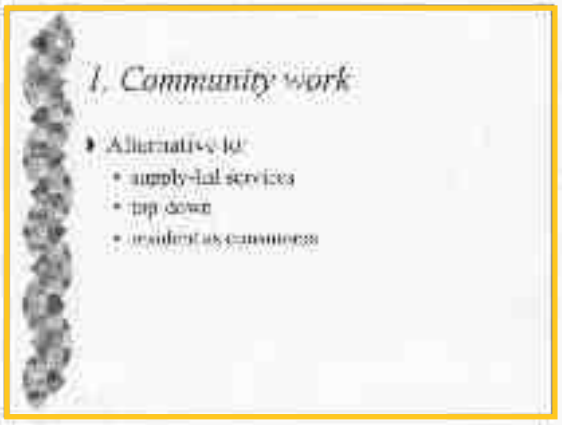
Module 3: Community participation

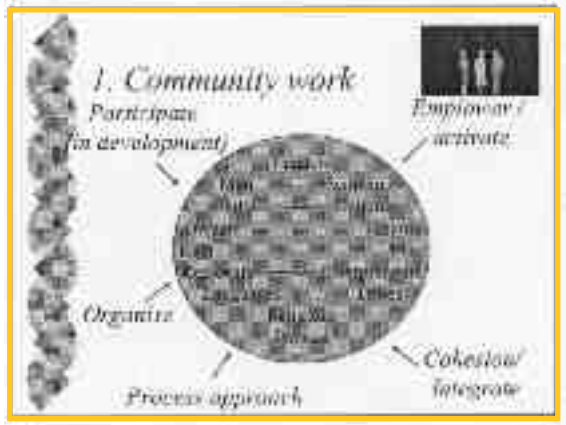
3.1 The urban community and their organisations (taken from another course)

3.2 Participatory tools (a summary)

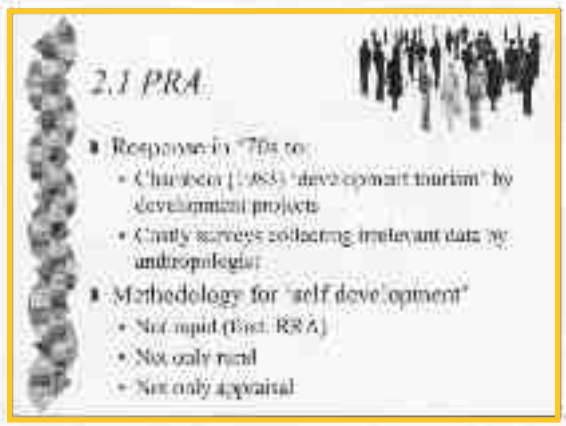
Community participation and organisation

Content
Introduction: community work
Community participation techniques
Community organisation

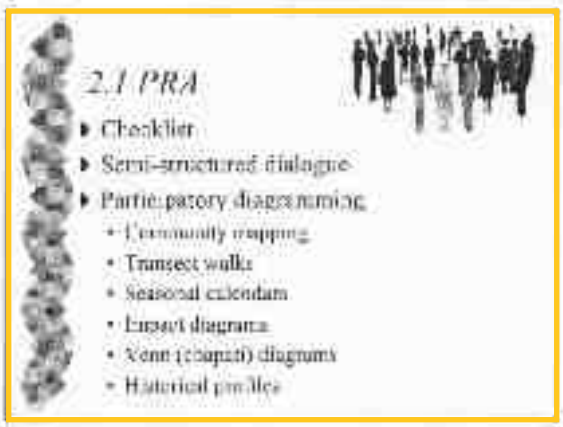

1. Community work
Alternative to:
supply-led services
top down
residents as consumers

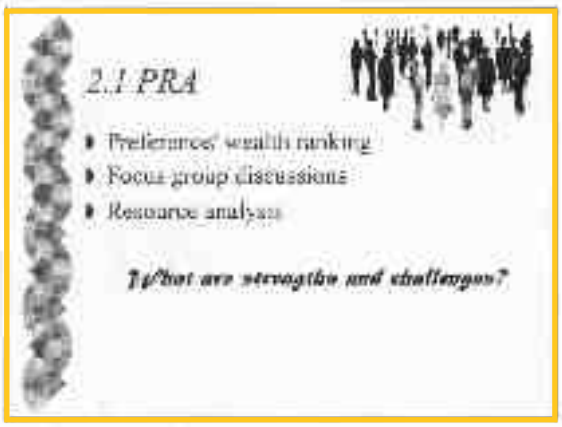

1. Community work
Participate
(in development)
Empower / activate
Organise
Process approach
Cohesion/ integrate

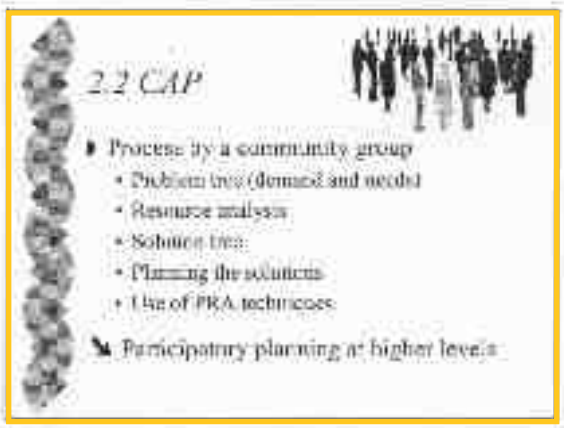
2. Community participation techniques
Participatory Rural Appraisal (PRA)
Community Action Planning
Surveys (information collection)

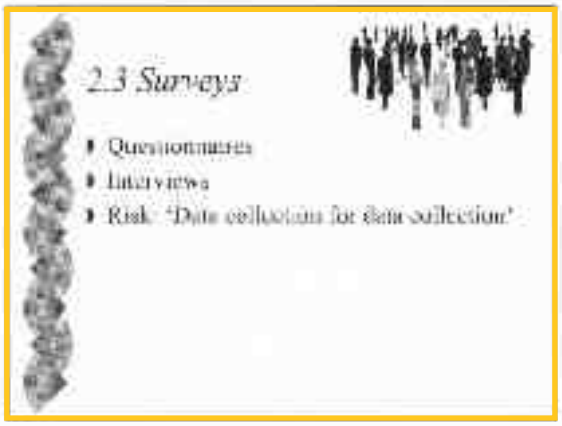

2.1 PRA
Response in '70s to:
Chambers (1983) 'development tourism' by development projects
Costly surveys collecting irrelevant data by anthropologist
Methodology for 'self development'
Not rapid (Eng. RRA)
Not only rural
Not only appraisal

2.1 PRA
Semi-structured process of learning from, with and by local people about their conditions
• people are not ignorant
• communities identify problems and solutions
• essential for decentralised development
• combination of methodologies
• optimal ignorance - appropriate imprecision

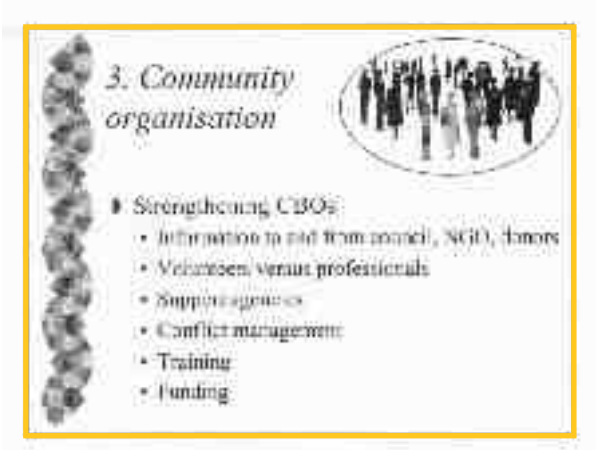

2.1 PRA
Checklist
Semi-structured dialogue
Participatory diagramming
• Community mapping
• Transect walks
• Seasonal calendars
• Impact diagrams
• Venn (chapati) diagrams
• Historical profiles

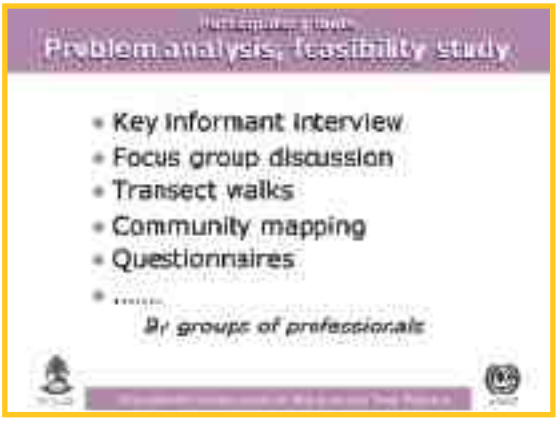

2.1 PRA
Preferences/ wealth ranking
Focus group discussions
Resource analysis
What are strengths and challenges?


2.2 CAP
Process by a community group
• Problem tree (demand and needs)
• Resource analysis
• Solution tree
• Planning the solutions
• Use of PRA techniques
Participatory planning at higher levels


2.3 Surveys
Questionnaires
Interviews
Risk: 'Data collection for data collection'

3. Community organisation
CBO or interest groups
Why community organisation through a CBO?
Community organisation is a never ending process
Representation through
• elections
• members
• organisation
• information


3. Community organisation
Strengthening CBOs:
Training
Funding


Problem analysis, feasibility study
Key informant interview
Focus group discussion
Transect walks
Community mapping
Questionnaires
.....
By groups of professionals

Design
Use of local language
Community involvement in all steps:
Preliminary discussion
Conceptual design
Final design
Use large scale maps, colours, pictures
Site walks: 'real world mapping'
Models

Construction
Roles:
Labour provision: paid?
Contractor: labour only, labour and material, full
Client
Consultant
Financer

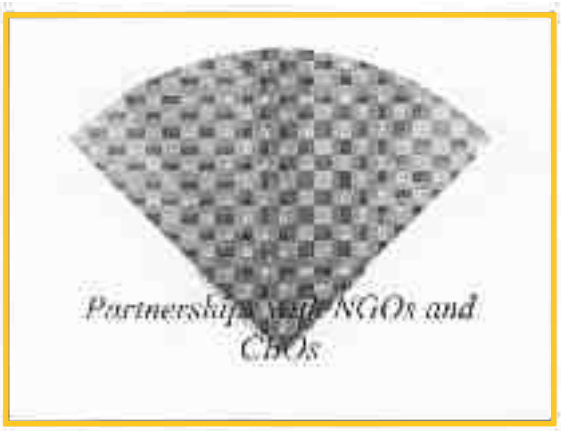
Operation and maintenance
Roles:
Labour provision
Contractor: labour only, labour and material, full
Client
Consultant
Financer

Capacity building
Institution building
Awareness creation
Training
Develop (formal) agreements
Professional staff?
Recurrent funding

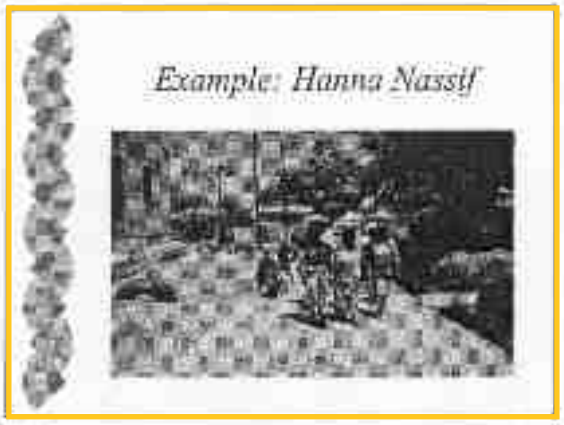
Overheads

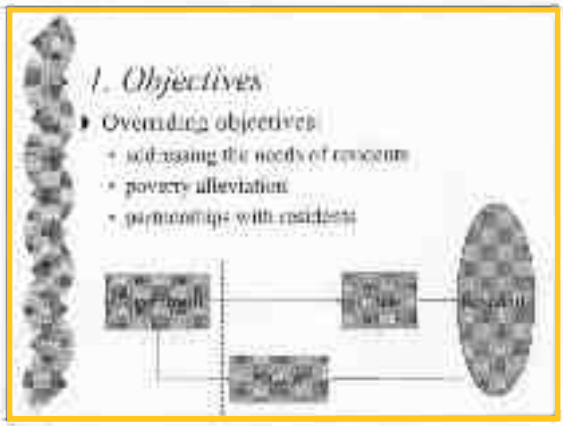
Module 4: Partnerships

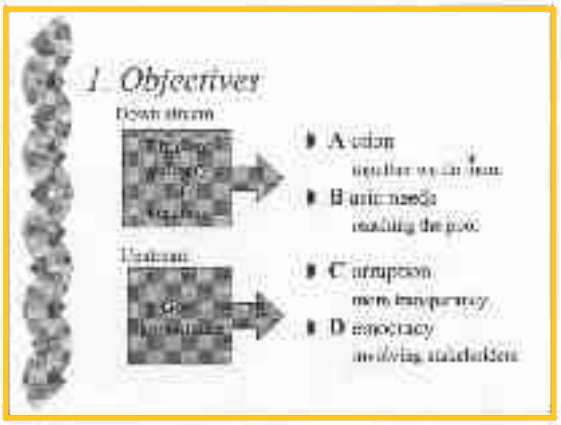
4.1 Partnerships with NGOs and CBOs (taken from another course)

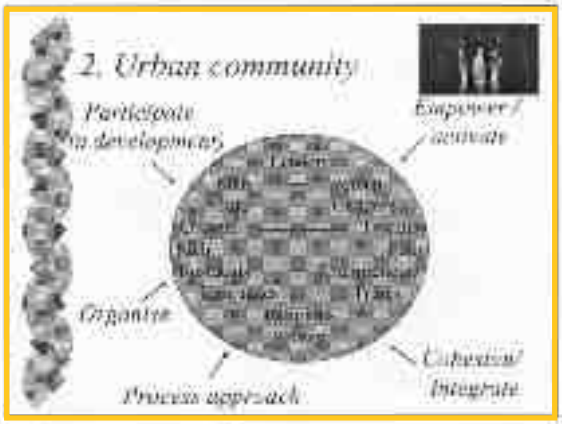

Partnerships with NGOs and CBOs

Content
Objectives
Urban community
Community organisation
Community participation
NGOs
Local Government
Central Government


Example: Hanna Nassif


1. Objectives
Overriding objectives
addressing the needs of residents
poverty alleviation
partnerships with residents


1. Objectives
Down stream
Upstream
Action
Basic needs
Corruption
Democracy


2. Urban community
Participate in development
Empower / activate
Organise
Process approach
Cohesion/ Integrate

3. Community organisation

- Why community organisation?
- By CBO or interest groups
- CBO represents a community through
  - elections
  - members
  - organisation
  - information
- Community organisation is a never ending process

3. Community organisation

- Strengthening CBOs
  - Training
  - Funding
  - Conflict management
  - Horizontal and vertical information
  - Volunteers versus professionals
  - Support agencies

4. Community participation techniques

- Participatory Rural Appraisal (PRA)
- Community Action Planning
- Surveys (information collection)

4. Community participation techniques

- Semi-structured process of learning from, with and by local people about their conditions
  - poor are not ignorant
  - communities identify problems and solutions
  - essential for decentralised development
  - combination of methodologies
  - optimal ignorance - appropriate imprecision

5. NGOs

- Quote from Carnea (1988):
  - "NGOs offer such a broad umbrella ... of organisations that attempts at simple definitions are unsatisfactory at best or misleading"
- Non Governmental are defined by what Governments are not:
  - Non humanistic
  - Not rigid
  - Not afraid of fast turnover
- Quotes of John Clark and Jan Pronk
- UNDP, 1990: NGOs reach "only" 250 million people (20% of 1.2 billion poor)

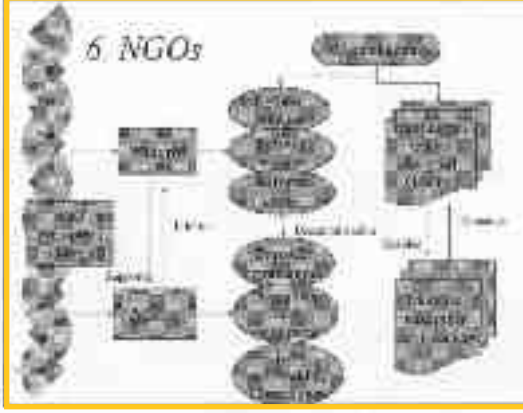
5. NGOs

- Objective oriented (represent a problem)
- Belief in community participation
- Motivated, idealistic staff
- Professionals, volunteers
- Non profit making
- Need funding, financially insecure. Thus, need quick and concrete results
- Funding from donors, Government, citizens
- Weak purchase power vis-à-vis Govt and private sector?

6. Role of NGO

Macro tasks	Micro tasks
• Policy advocacy	• Capacity building
• Lobbying	• Process facilitation
• Public education	• Fostering linkages
• Public Mobilisation	• Mediation
• Monitoring	• Social services
• Mediation	• Physical services
	• Financial services

6. NGOs



6. NGOs

The balancing act

•Micro level	•Meso, macro level
•Local Government	•CBOs
•Concrete local results	•Capacity building •Networking
•Own interest	•Donor interests
•Strong organisation	•Function as alternative government

6. NGOs

Changes due to trends

- Southern NGOs get stronger
- Partnership and participation have been integrated into development and are no longer the monopoly of NGOs
- Professionalism instead of voluntarism
- Programmes instead of projects

7. Local Government

Services sometimes fail due to?

- Weak link between LA and residents
- Not based on needs of community
- Not linked to willingness and ability to pay
- No maintenance arrangements
- No involvement of (future) residents
- No proper standards

7. Local Government

Strategies

- 1. Enabling policies, laws and planning processes
  - Towards NGOs and CBOs: legislation, promotion, obligation
  - Good governance and decentralisation
- 2. Develop partnerships
  - Within Government and outside
  - Coordinate urban development activities

Strengthening Governments for partnerships
3 Funding of NGOs and CBOs
4 Attitudes and motivation of staff
5 Skills and knowledge of staff
Guidelines

Strategies
Lessons on partnerships
Should be on equal basis
Time consuming

Overheads

Module 5: Intractable problems

5.1 Intractable problems

ES Intractable problems

- Objectives and proposed approach
- Typical options to be considered
- Problem trees
- Policy issues
- Practical problem solving

Practical problem solving (1)

- Achieve consensus
- Consider **all** options
- Start with an overview, showing linkages

Practical problem solving (2)

- Adopt **appropriate** standards
- Understand difference between **best** practice and **essential** practice
- Consider **unusual** solutions
- Identify and work with those able to influence **policy**

Approach to practical problem solving

- Understand the problem
- Address linked problems
- Use appropriate standards
- Difference between 'best' and 'essential' practice
- Depersonalise it
- Look at motivation
- Look at policy context
- Assess **all** options
- Be creative!

Technical Options

Creative problem solving

- Drainage
- Roads and access
- Water supply
- Sanitation
- Solid waste management
- Resettlement

Overheads

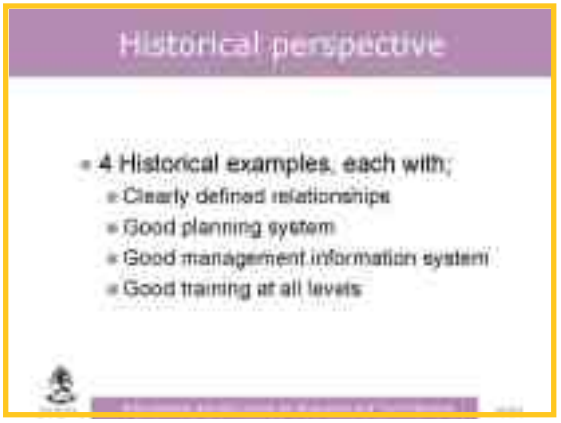
Module 6: Labour-based technology

6.1 Labour-based technology: historical perspective

6.2 Road improvements by LBT

6.3 The urban application of LBT

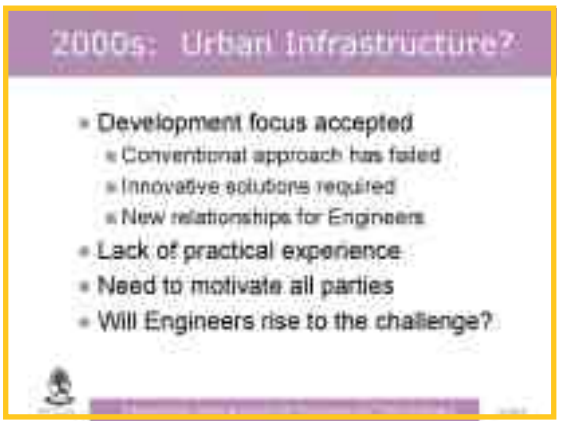
E6 Labour-based technology
Historical perspective
1970s World Bank Study
1980s Rural Road Projects
1990s Small contractor development
2000s New partnerships


Historical perspective
4 Historical examples, each with:
Clearly defined relationships
Good planning system
Good management information system
Good training at all levels

World Bank 'Labour Substitution' Study
Management intensive approach
Mechanise major haulage and compaction
Social benefits of using labour
Economic benefits of using labour
But many aspects to get right!
Reward system
Tools & Equipment
Community involvement
Legal position
Training
Taskwork

1980s Rural Road Projects
Benin: Comparison of plant and labour
Kenya: Slowly but surely
Lesotho: Mountain roads and rock
Donor-driven, heavy initial TA
Training capability established

1990s: Contractor Development
Search for sustainability
'Ghana' model
Reluctance to introduce competition
Unreliable political support
New partnerships sought


2000s: Urban Infrastructure?
Development focus accepted
Conventional approach has failed
Innovative solutions required
New relationships for Engineers
Lack of practical experience
Need to motivate all parties
Will Engineers rise to the challenge?

Road Improvement by LBT Steps

Step A Pre-construction
Step B Construction
Step C Maintenance

Step A. Pre-construction

1. Road identification
2. Improvement plan
3. Necessary design
4. Seek for resources

B. Construction

Step B1. Earth road construction
- Step B1.1 Preparation activities
  - setting out road centre and related dimensions
  - Site clearance (bushes, grubbing, trees, stumps and boulder removal)

Step B. Construction

- *Step B1. Earth road construction*
  - Step B1.2 Formation activities
    - Slotting - vertical alignment
    - Excavation to level
    - Ditching on side drain
    - Sloping and backsloping
    - Camber formation
    - Compaction

Step B. Construction

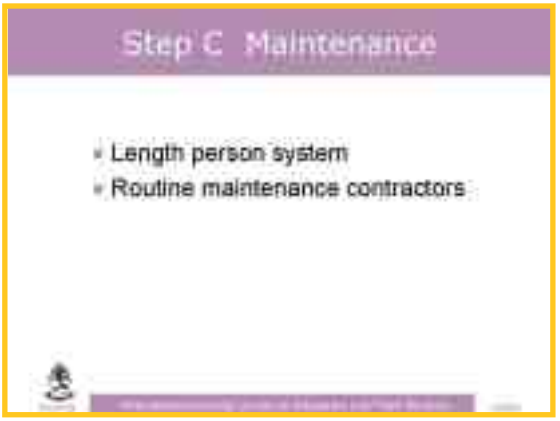
- *Step B1. Earth road construction*
  - Step B 1.3 Drainage activities
    - Scour-checks
    - Mitre drains
    - Catch water drains
    - Culvert instalation

B. Construction

- *Step B2. Road surfacing*
  - Step B.2.1. Quarry preparation
    - Acquisition of quarry
    - Preparation of acces
    - Excavation of gravels

Step B Construction
Step B2.2 Reshaping the road
Clean the side drains
Reinstate the camber

Step B Construction
Step B2.3 Gravelling
Load of gravel
Haul gravel
Off load and spread
Compact
Install road furniture
Put gravel stakes for maintenance
Backfill quarry and plant trees


Step C Maintenance
Length person system
Routine maintenance contractors

The urban application of LBT

- General standards are not affordable in unplanned settlements
- Standards differ from general standards
- No demolition of houses
- Mutual agreement in necessary with regard to quality
- Carefully set minimum standards are used
- Road width depends on distance between houses

Urban application - page 2

- Mitre drains may not be feasible and large storm water drains are required
- Design needs to be flexible to prevent demolition of structures and cope with unexpected obstacles
- Maintenance links to waste management

Urban application - page 3

- Drainage works therefore necessitates improved waste management (and sanitation)
- Improved roads will result in more traffic

Urban application - page 4

Urban application of LBT

- More than only roads
- More than only infrastructure
- Labour issues
  - No other income
  - Pay or no pay?
  - Safety and insurance
  - Training
- Community contracting
  - More capacity: contractors and workers
- Adapt technology
  - Need for good design
  - Storm water drainage
  - Cut and fill, not always possible
  - Solid waste needs to go out
  - Need to be flexible: go around pit latrine
  - Tight working spaces
  - More skills available
  - Flexible standards
  - More management intensive (due to community)

Overheads

Module 7: Money matters

7.1 Cost estimating

7.2 Cost of the Hanna Nassif project

E7 Cost Estimating

- Objectives and proposed approach
- Use of standard productivities and unit costs
- Taking account of capital costs
- Policy environment
- Resource-based estimating

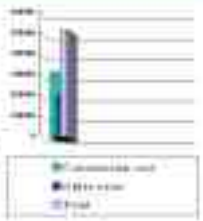
Sample resource estimate (1)

Sample resource estimate (2)

Capital costs

Cost of Hanna Nassif project

- Overhead costs
  - Staff: project team, consultant
  - Office and stationary
- Construction costs
- Community animation cost
- Capacity building cost
  - Training
  - 'Learning by doing'
  - Institution building



Construction costs in Hanna Nassif Phase 1

- Indirect costs
  - Overhead costs
  - Design
  - Supervision
  - Tools and equipment
  - Profit
- Development costs
- Direct construction costs
- Misc.

Indirect	US$ 100 000
Development	US$ 23 000
Direct	US$ 197 000
Total	US$ 320 000

Direct construction costs

Material	62%
Labour	25%
Unavoidable losses	7%
Technical errors	4%
Transport	2%

Comparing costs

Roads

Road works	US$ 16 014 / km
Road side drains	US$ 54 680 / km
Form work	US$ 7 500 / km
Total	*US$ 70 716 / km*

Drains

Main drain	US$ 168 275/ km
Outfall Ca	US$ 140 000/ km

Key explanations

- Material
  - Drains: reinforced concrete (65% of drainage cost)
  - Stones: soil stabilisation
  - Gabions: 68% of costs were material
  - Roads and footpaths: gravel and concrete for bridges
- Transport:
  - No real cut and fill, as in rural roads

Key explanations

- Unavoidable losses: 7%
  - water pipes reconnected
  - waste
  - pit latrines
  - changes in design (new houses)
- Technical errors
  - Drainage slope 0.2%

Overheads

Module 8: Contract administration

8.1 Community contracting

Community contracting

Wilma van Esch, ILO ASIST

Community involvement in infrastructure procurement

- involvement of community in planning, design, implementation and maintenance.
- Partnership community, local government, and private sector.
- Community contracting

Roles of community in works

Roles appropriate for community:

- workers
- client
- supervisor
- contractor
- partner in entire process

Works suitable for community involvement:

- not be of high risk or hazard
- not be technically or managerially complex
- not capital intensive
- not requiring specialised or imported

What is a community contract?

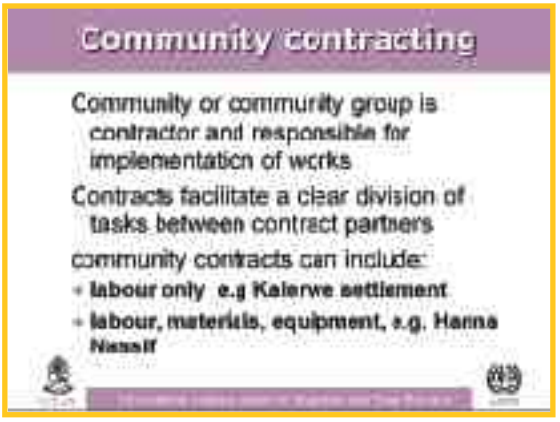
- Agreement
- Tasks in return for payment
- Residents in community
- Community members are contractor
- Who is the community contractor?
  - Elected Community Representatives
  - Construction sub committee
  - An economic group within the settlement
  - An individual living in the settlement

Community representatives as contractor

- Legal satus
- bank account
- democratic elected
- transparent accounting system

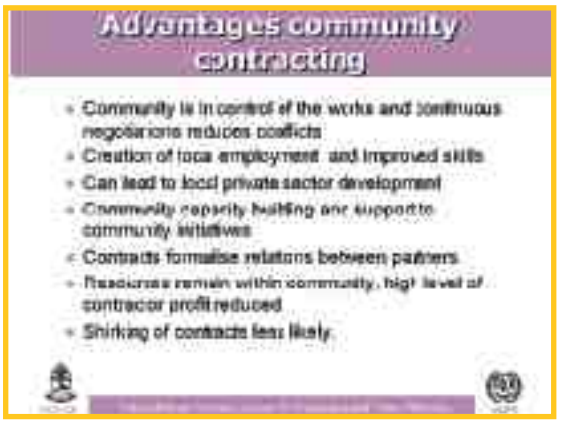
Contract Documentation

- Types o' contract
  - Labour only
  - Labour and material
  - Full contract
- Rehabilitation
- Maintenance
- BoQ and Unit prices
- Advance payment
- Risks and profit


Community contracting
Community or community group is contractor and responsible for implementation of works
Contracts facilitate a clear division of tasks between contract partners
community contracts can include:
labour only e.g Kalerwe settlement
labour, materials, equipment, e.g. Hanna Nassif

Hanna Nassif Community
assist in contract preparation
hire labourers
set wage level and task rates
purchase and safe keep material, tools and equipment (store keeper)
carry out accounting (book keeper)
monitoring and quality control

Kalerwe contracts
Community contracts for neighbourhood residents
labour-only
hire labourers and manage labour force
book keeping and store keeping
negotiate wage level


Advantages community contracting
Community is in control of the works and continuous negotiations reduces conflicts
Creation of local employment and improved skills
Can lead to local private sector development
Community capacity building and support to community initiatives
Contracts formalise relations between partners
Resources remain within community, high level of contractor profit reduced
Shirking of contracts less likely

Weaknesses Challenges
participation is time consuming
need for detailed technical designs, small packages of works and increased technical assistance
management of small contracts
training of community groups and representatives
proper and simple contract documentation
simplified tender procedures
appropriate legislation
advance payments, profit and risks
training in labour/community-based approaches

Overheads

Module 10: Management

10.1 Urban management

10.2 Labour policies and practices with contracting

The participatory manager

Tends to:
- Provide leadership while listening to others
- Help others to do their job well
- Be relaxed, open, enthusiastic and disciplined

The lax manager

Tends to:
- Allow others to make decisions
- Ignore problems, even when serious
- Not care about meeting targets

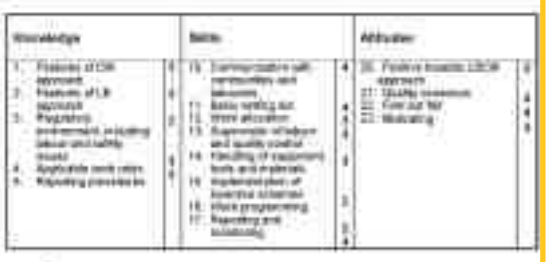
The autocratic manager

Tends to:
- Mistrust others
- Rely on status to force through decisions
- 'Burn out' as cooperation is lost

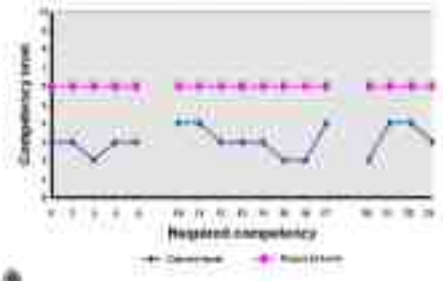
Training

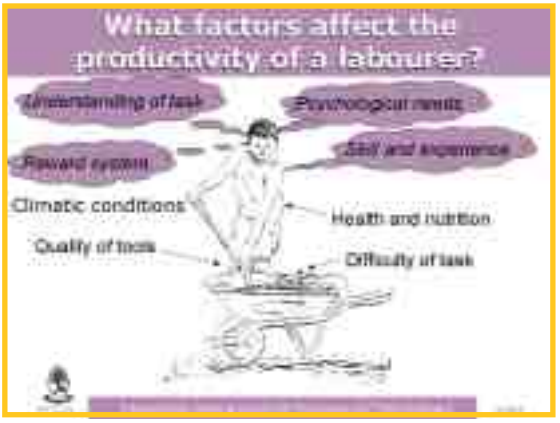
- Difference between education and training
- Practical application of learning
- Effects can be measured in terms of
  - Knowledge
  - Skills
  - Attitudes
- Training need is the gap between actual and required competency levels

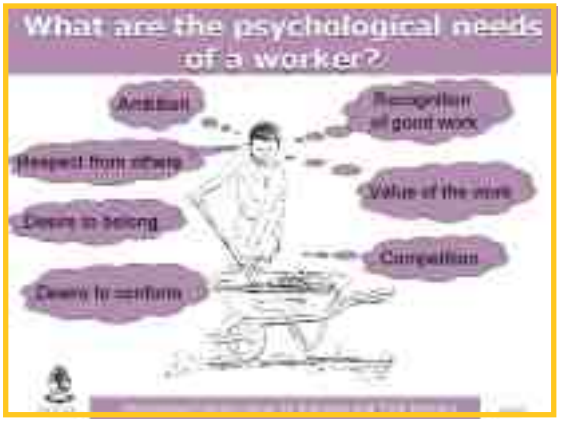
Core competencies (foremen)

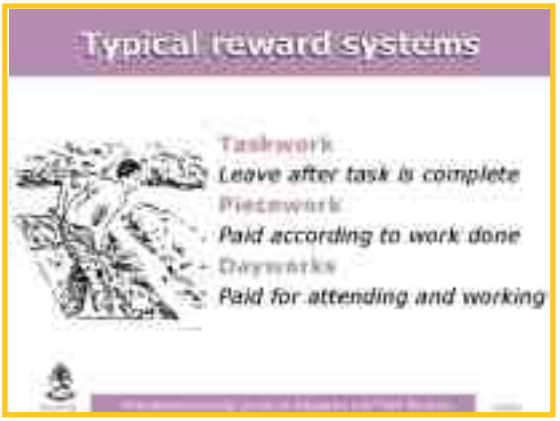


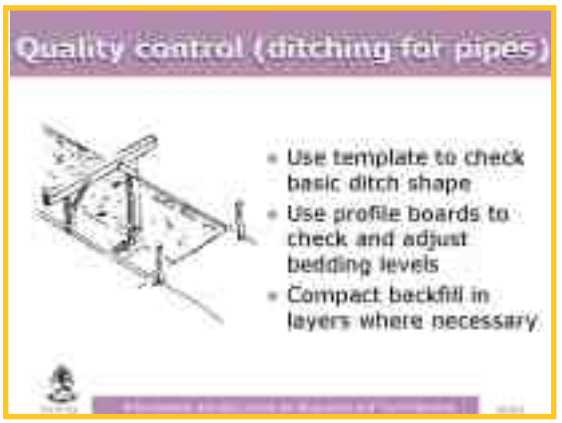
Competency levels (foremen)




What factors affect the productivity of a labourer?
Understanding of task
Psychological needs
Reward system
Skill and experience
Climatic conditions
Health and nutrition
Quality of tools
Difficulty of task


What are the psychological needs of a worker?
Recognition of good work
Respect from others
Value of the work
Desire to belong
Completion
Desire to conform


Typical reward systems
Taskwork
Leave after task is complete
Piecework
Paid according to work done
Daywork
Paid for attending and working


Quality control (ditching for pipes)
Use template to check basic ditch shape
Use profile boards to check and adjust bedding levels
Compact backfill in layers where necessary

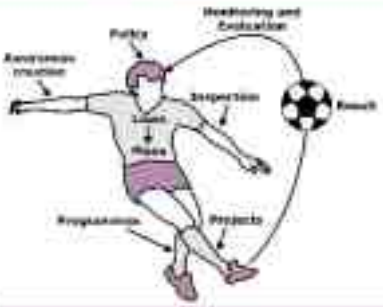
Managing Community Labour
Community profiles
Labour identification
Work organisation
Reward system
Labour mobilisation
Resource estimating
Community contracts
Training
Work Programming
Tools & equipment
Setting out
Quality Control
Reporting/Monitoring
Handover
Field trials, leading to Pilot implementation, followed by Full implementation. Most time should be spent with communities.

Urban management

Objective
- From projects to programmes and policies
- Management tools

Topics
- Central - local relationships
- City management
- Management tools

Central - local relationships



Central - local relationships

Policies should be...

- **S** traightforward
- **M** anageable
- **A** ppropriate
- **R** elevant
- **T** ime-related

Central - local relationships

Components of a LBCM upgrading policy

- Based on poverty analysis
- Legalising settlements
- Upgrading as aim
- Title deeds
- Legal role of CBOs and NGOs
- Appropriate contracting
- Appropriate standards of infrastructure
- Use of LBT
- Use of local building material
- Resettlement sites?
- Capacity building

Central - local relationships

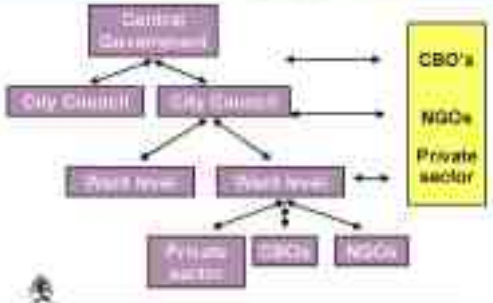
Traditional division of work

- Policies
- Laws
- Taxes
- Implementation
- Implementation

What are the problems?

Central-local relationships

Partnership approach



Central-local relationships

- Bottom-up planning
- Decentralisation
- Normative control
- Budgeting, editing
- Privatisation
- Capacity building
- Local taxation
- Effective, efficient staff

City management: three models

- Step 1 Environmental profile
- Step 2 City consultation
- Step 3 Working groups

Participative decision making

City management: three models

- Started with pilot project in Nairobi
- Committee of all key stakeholders for Nairobi
- Policy document developed and adopted
- Action plan developed and adopted
- Sub-committees set up
- Links made with CBOs

City management: three models

1986 National Housing Development Authority

- Step 1 Community contacts NHDA
- Step 2 Two day workshop with community set up programme and implementation schedule
- Step 3 Establish and legalise CBO
- Step 4 Establish community contract
- Step 5 Ongoing support by 'praja sahayakas'

1986 - 1988 83 contracts executed

3. Management tools

Organisation must have

- Clearly defined objectives, outputs and activities
- structure

Managers must provide

- Clearly defined roles and responsibilities
- Appropriate resources and information
- Delegation
- Monitoring and evaluation

3. Management tools

Staff must be

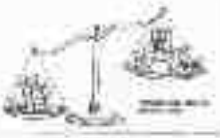
- well selected
- trained
- Motivated
- Clear job descriptions

Labour policies and practices with contracting

- Introduction
- Why labour standards
- What are labour standards
- Key labour standards
- Recruitment
- Wages
- Safety and health
- Rights of association

Introduction

- Changing environment:
  - Increasing poverty and unemployment
  - More competitive world
  - Outsourcing



Employment... Yes, but quality employment with fair working conditions

Why labour standards?

Contracting is more risky

- Workers
  - Decent income and working conditions
- Employers
  - Motivated workforce
  - No problems
- Government
  - Social and economic objectives

What are labour standards?

- Set adopted by Annual ILO Labour Conference
- Conventions can be ratified by countries, and become legally binding
- Recommendations: advice on how to implement conventions

Key labour standards

Equality

Discrimination convention (No. 111)

Equal remuneration Convention, 1951 (100)

Equal opportunities and treatment

Men and women should receive equal pay for equal work

No forced labour

Work or service shall not be exacted from any person under the menace of any penalty, or for which the said person

Key labour standards 2

Freedom of association

(No 87, 135, 141)

- Right to establish and join any organisation
- No interference with association
- Voluntary negotiations (CB)

Minimum age

(No 138)

- No person under 15 should work
- No person under 18 should work in hazardous circumstances

Outline

Key labour standards....3

Minimum wages

Protection of wages

Key labour standards....4

Safety and health

Recruitment

Recruitment.....2

Recruitment....3

Recruitment....4

Wages

Wages....2

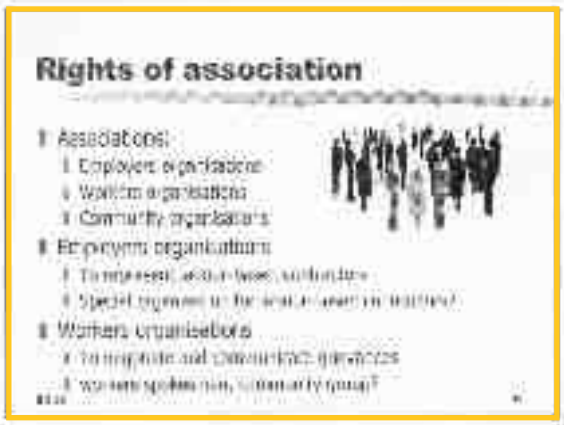
Wages...3

Wages....4

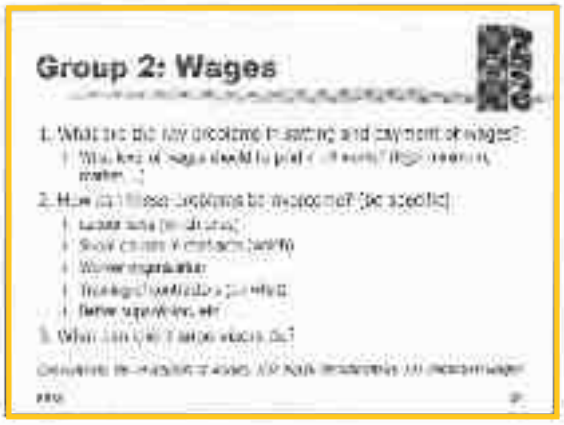
What about quality and productivity?

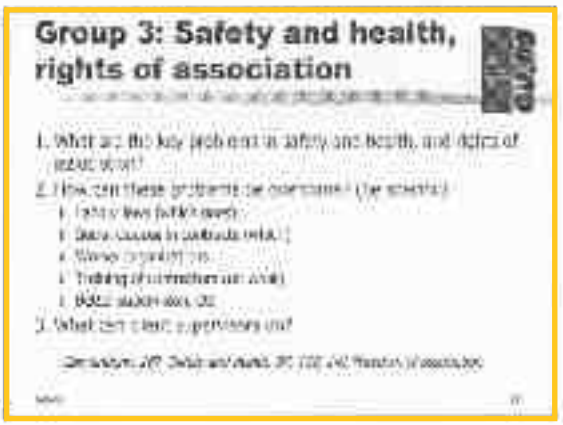
Wages....5

Safety and health


Rights of association
1. Associations:
i. Employers organisations
ii. Workers organisations
iii. Community organisations
2. Employers organisations
3. Workers organisations

Group 1: Recruitment
1. What are the key problems in recruitment?
2. How can these problems be overcome? (be specific)
3. What is the role of client companies?


Group 2: Wages
1. What are the key problems in setting and payment of wages?
2. How can these problems be overcome? (be specific)
3. What can client companies do?


Group 3: Safety and health, rights of association
1. What are the key problems in safety and health, and rights of association?
2. How can these problems be overcome? (be specific)
3. What can client companies do?

Overheads

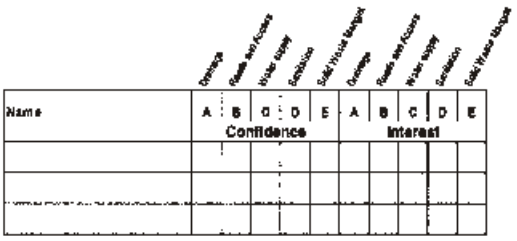
Project assignment

Introduction to assignments

Introduction to Assignments

- Purpose of the assignments
- Approach to the assignments
- Overall process
- General planning issues
- The logical framework approach

Allocation to project groups



Technical Scope

A Drainage
B Roads and Access
C Water Supply
D Sanitation
E Solid Waste Management

Purpose of the Assignments

- Reinforces learning
- Develops new skills and attitudes
- Exposes weaknesses
- Results in self-confidence

Approach to the Assignments

- Keep it simple
- Work in mixed groups
- Think beyond the technical
- Maximise role of residents

Overall process

- Where are you now?
- What do you want to achieve?
- How can the required change be achieved?

General planning issues

- Look for untapped potential
- Think of secondary effects
- Identify service needs
- Consider sustainability

The logical framework approach

- History and development of LPA
- Inputs, outputs, purpose and goal
- Benefits of the logframe approach
- Pitfalls of the logframe approach

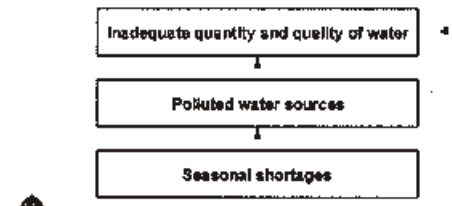
Typical Structure of Logical Framework

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
Goal (Programme Purpose) (Development Objective)	Measures of Goal Achievement	Sources of information and methods used	Assumptions for achieving goal targets
Project Purpose (Immediate Objective)	Conditions that will indicate purpose has been achieved. (End of project status)		Assumptions for achieving purpose
Outputs	Magnitude of Outputs | Completion date		Assumptions for achieving Outputs
Inputs	Implementation Target (Type, Quantity, Cost, Timing)		Assumptions for providing inputs

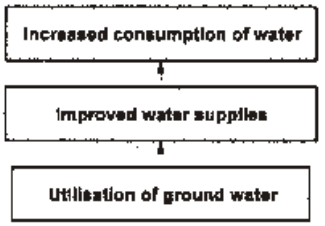
Logical Project Planning (1)

- Identify key problems
- Organise problems in a causal sequence
- Invert the problem and state as solutions or objectives

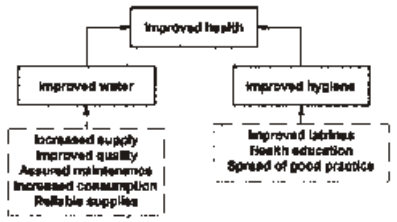
Logical Project Planning (2)



Logical Project Planning (3)



Logical Project Planning (3)



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Elements of a Project Document

1 Context
2 Project justification
3 Development objectives
4 Immediate objectives
5 Outputs and activities
6 Inputs
7 Risks
8 Prior obligations and prerequisites
9 Reporting& evaluation
10 Sustainability
11 Legal context

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Annexes to a Project Document

- Logical Framework
- Background to the area
- Institutional Framework
- Technical details
- Work plan
- Training Programme
- Job Descriptions

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Project Assignments: 10 Steps

1. Justification
2. Problem identification
3. Participation techniques
4. Partnerships
5. Appropriate options
6. Labour-based technology
7. Costing
8. Community Contracts
9. Maintenance Plan
10. Management

Preparation of Project Document

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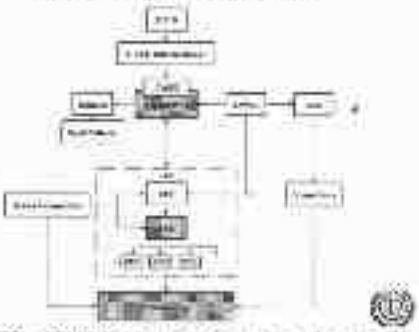
Example of Organisational Structure