

Employment-intensive upgrading of urban unplanned settlements by communities

— Practices and opportunities in Dar es Salaam,
Tanzania —

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ASIST

International Labour Organisation

*Advisory Support, Information Services and Training for Labour-based
Programmes*

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Photograph on the front page: Maintenance in Hanna Nassif, Dar es Salaam, as funded by the road toll in Hanna Nassif.

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Annex 1: Employment intensive upgrading by communities

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Abbreviations

ASIST	Advisory Support, Information Services, and Training for labour-based programmes
CBOs	Community Based Organisations
CDCs	Community Development Committees
CIP	Community Infrastructure Project
DCC	Dar es Salaam City Commission
EO	Employment Ordinance
HCP	Healthy City Project
IGP	Income Generation Programme
ILO	International Labour Organisations
IRP	Integrated Roads Project
ISS	Institute of Social Studies, the Hague, Netherlands
MLHUD	Ministry of Lands, Housing and Urban Development
NCC	National Construction Council
NEP	National Employment Policy
NGOs	Non-Governmental Organisations
NHDA	National Housing Development Authority, Sri Lanka
NIGP	National Income Generation Programme
NMT	Non Motorised Transport
NPFA	National Provident Fund Act
NSHSDP	National Sustainable Human Settlement Programme
NUWA	National Urban Water Authority
OTTU	Organisation of Tanzanian Trade Unions
PUSH	Project of Urban Self Help, Lusaka, Zambia
SAA	Severance Allowance Act
SDP	Sustainable Dar es Salaam Programme
SHHA	Self-Help Housing Agency, Botswana
TACOSODE	Tanzania Council for Social Development
TANESCO	Tanzania Electric Supply Corporation
TANGO	Tanzania Association of Non-Governmental Organisations
UCLAS	University College of Lands and Architectural Studies
UN	United Nations
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNDP	United Nations Development Programme
UNV	United Nations Volunteers
USEP	Urban Sector Engineering Project
WCA	Workmen's Compensation Act
WFP	World Food Programme
WTE	Regulation of Wages and Terms of Employment Ordinance

1 Introduction

1.1 Fighting urban poverty in Tanzania

The rapid pace of urbanisation and the lack of sufficient employment opportunities, increase the magnitude of urban poverty in Tanzania. The formal sector can only provide employment for a minority of the urban job seekers, while the majority finds some kind of employment in the informal sector. However, for many this is a survival strategy.

The problem of urban poverty is concentrated in unplanned settlements, where most of the urban poor live. Dar es Salaam, by far the biggest city of Tanzania, has 44 unplanned settlements, which house 70 per cent of its inhabitants. These settlements are characterised by flooding, heaps of garbage, and poor access to education, health care, sanitation, water, and employment opportunities.

To fight urban poverty, employment creation and upgrading of living and working conditions require urgent attention. Urban poverty can not be ignored, and urbanisation as a trend proves very difficult, if not impossible, to stop.

This paper poses one strategy to fight urban poverty: upgrading of unplanned settlements with labour-based technologies, thus optimising local employment creation. Communities themselves can implement the works, as the pilot project in Hanna Nassif — an unplanned settlement in Dar es Salaam — has proven. It does however require a partnership of the Government, City Councils/ Commissions, private sector, NGOs, and Community Based Organisations (CBOs).

1.2 Innovative approaches to alleviate urban poverty

Most organisations, both national and international, recognise the need to create productive employment as a means to alleviate urban poverty. This is reflected in a growing number of policies, including the Global Strategy for Shelter to the year 2000 (UNCHS), Agenda 21 of UNCED (ILO, UNCHS. 1995, p. 21-24), the Habitat Agenda, and the UNDP Agenda (UNDP, 1991).

Opinions are divided however on how to create employment. The following approaches can be separated:

- Stimulating economic growth, mainly through export orientation and the development of a free market.
- Promoting small and micro scale enterprises whenever (potentially) productive.
- Developing human resources through education, training, and health care.
- Delivering public services and building public infrastructure, using local labour and resources.

Labour based methods to construct infrastructure is recognised as a means to create employment and to alleviate urban poverty. It provides the opportunity for

city councils to construct public infrastructure in a cost-effective manner, while at the same time creating employment.

1.3 Labour/ community based approaches

Labour/ community based upgrading of unplanned settlements, as discussed in this paper, is an innovative and appropriate method to construct and maintain public infrastructure, while creating local employment¹.

Labour-based technology can be defined as “the most cost-effective mix of labour and light equipment, that can construct or maintain infrastructure to the required standard. Considering the low wage-levels in many unplanned settlements, the use of local employment will often be the most cost-effective.

Labour-based technology is appropriate in community based approaches, which will increase the capacity of communities to be actively involved in the development of their environment. The sustainability of the created infrastructure (i.e. regular maintenance) will be improved due to increased ownership of the assets and services by the community and the skills gained by the community during implementation. Communities can be involved in construction and maintenance through community contracts, where a contract will be signed in which the community performs an activity (i.e. construction) in exchange for funds and advisory support.

Labour/ community based approaches are very appropriate in highly congested and poor urban areas, where heavy equipment cannot reach, community support is needed to agree on space to build infrastructure, and a lot of local employment is available.

More information and examples on labour/ community based approaches are given in Annex 1.

1.4 Roles of the partners

Labour and community based approaches require new roles, attitudes and skills of the partners involved in construction and maintenance of public infrastructure. The new roles of the parties can be summarised as follows (UNCHS, 1994):

The **Central Government**, to an increasing extent, would decentralise its functions, and concentrate on creating policies and laws that enable others to provide adequate shelter.

The **City Council** would adopt a more co-ordinating role, instead of trying to deliver all services itself. The Council thus plans the delivery of services, together with its partners, and manages and monitors the institutions engaged in implementation.

¹ Upgrading of unplanned settlements has become more the rule, as opposed to the destruction of settlements and trying to construct new shelter. This generally proved expensive, and the urban poor were often unable to pay the rent of the newly constructed housing. The newly constructed areas also tended to be far from the city centre (UNDP, 1991; Habitat, 1996, ILO, 1996; George McRobie, 1996).

The ***Private Sector*** delivers the services of the City Council if and when appropriate, under the guidance of the City Council. This could include recycling or transporting of solid waste, and rehabilitation and maintenance of roads.

Community Based Organisations (CBOs) can implement and maintain community based (minor) infrastructure and assist in delivering public services, in cooperation with the City Council. The minor works, as described in the next section, include secondary drains, sanitation, water supply. The minor services include primary and secondary solid waste management.

Consultants can supervise the delivery of services by the private sector and CBOs on behalf of city council.

Donor organisations and ***NGOs*** can assist the partners in alleviating urban poverty, without however aiming to organise and manage the work themselves.

1.5 Objective and structure of the report

This report aims to outline the practices and opportunities of labour-based technologies and community management to upgrade unplanned settlements in Dar es Salaam and other cities in Tanzania.

The report describes urban poverty in chapter two. Chapter three to six look into the present experiences and opportunities of the parties involved in infrastructure development in unplanned settlements in Dar es Salaam. These are, respectively, the Government (chapter 3), Dar es Salaam City Commission (chapter 4), NGOs and the Donor Community (chapter 5), and CBOs (chapter 6). Finally, chapter seven draws conclusions and recommendations.

2 Urban poverty

2.1 The problem: rapid pace of urbanisation

By the end of the century, nearly half of humanity will be living in urban settlements. The most alarming aspect of this trend is its rapid pace, which is mainly concentrated in less industrialised countries. Latin America has already almost reached the level of urbanisation of industrialised countries, while Africa and Asia still have lower levels, but face a much faster rates of urbanisation (ILO. 1996, p.8).

Table 1: Urbanisation in the developing world (% of total population)

Major Regions	1950	1970	1995
Africa	14.7	23.0	34.3
Asia	16.8	24.8	36.9
Latin America & Caribbean	41.6	57.4	74.2

Source: ILO, 1996, p.9

One of the main problems of urbanisation is the increase in urban poverty. Urban poverty has the highest incidence in Africa, where more than 40 per cent of the city dwellers are living under the poverty line — a percentage which is likely to increase significantly in the future (ILO. 1996, p.14).

Poverty is directly related to unemployment and underemployment. Unemployment tends to be low in developing countries, where large numbers of job seekers can not be employed in the formal sector, and find some kind of employment in the informal sector. However, the informal sector also has its limits in absorbing the growing number of job seekers, and many are therefore underemployed, and work relatively unproductively, as a survival strategy. For these reasons, Mayors in Africa recently pinpointed un- and underemployment as the most significant problem in their cities (ILO, 1996).

Confronted with the increasing population and the high incidence of poverty, many city councils find themselves unable to provide adequate shelter for all. Some of the problems city councils may face are:

- Inadequate resources
- Poorly trained and remunerated staff
- Top-down organisational structure, sometimes with political interference
- Laws and regulations are outdated
- standards for infrastructure and services are not appropriate for unplanned settlements

Faced with such problems, many city councils find it difficult to deliver even basic services, as the heaps of garbage and poor state of the roads in many cities illustrate. As a result, the urban poor rent or construct their own houses in unplanned “squatter” settlements, which are hardly serviced at all. These settlements are characterised by the poor state of housing, poor or absent water

and sanitation facilities, flooding, heaps of garbage, violence, and limited access to education, health facilities, and social services.

Unplanned settlements house a significant part of the total urban population. Kibera, for example, is the biggest unplanned settlement in Nairobi, housing 0.5 million of the cities 2 million inhabitants.

The poor living conditions in unplanned settlements limit the opportunities of the urban poor to improve their situation. Poor living conditions coincide with poor working conditions, as houses tend to be used as workplaces, thus limiting productivity (ILO, 1996, p.23-27).

2.2 Urbanisation in Tanzania

The national population of Tanzania has grown rapidly from an estimated 15.90 million people in 1975 to 25.60 million in 1990. The population is projected to reach 34.07 million people by the year 2000 (table 2).

The urban population, however, has grown even faster, even though Tanzania is still one of the least urbanised countries in the world. The urban population has increased from an estimated 1.60 million people in 1975 to 5.32 million in 1990, and is expected to reach almost 10 million in the year 2000 (28.20% of the total population; table 2).

Table 2: Estimated population and urbanisation trends in Tanzania

	1975	1990	2000
Total Population	15,900,000	25,600,000	34,074,000
Urban Population	1,602,000	5,325,000	9,608,000
% of Urban Population	10.08	20.80	28.20

Source: UNCHS, 1996, pages 85,440 and 447.

The increasing urban population has not been matched with an equivalent growth in the supply of formal housing in planned areas. The widening gap between housing demand and supply has, among other things, stimulated the growth of unplanned settlements.

Studies conducted by the Ministry of Lands, Housing and Urban Development (MLHUD) in 1980 have shown that 65% of all housing constructed in urban areas was found in unplanned settlements (United Republic of Tanzania, 1996). The latest studies conducted in 1995 under the Housing Indicators Programme revealed a similar situation: unplanned settlements are housing about 70% of the population in Dar es Salaam, Mbeya and Arusha, and 40% in Mwanza.

Much of the housing stock in unplanned settlements in Tanzania is of sound quality and improvable, though built without permission from the local planning authorities. Consequently, the settlements lack basic infrastructure and services such as roads, drainage, adequate solid and liquid waste disposal facilities, adequate human waste disposal facilities, adequate water supply, electricity, etc.

Related to the rapid increase of urban slums and squatter settlements, is the expansion of urban poverty at a rate of 7% per annum (UNDP, 1990). This is closely related to the declining number of jobs in the formal sector. According to the Ministry of Labour and Youth Development, the formal sector used to create about 30,000 employment opportunities per annum in the 1970's. In the early 1990's the figure had declined to less than 2,000 per annum.

The decline of employment in the formal sector has given rise to employment in the informal sector. The 1991 Informal Sector Report (Ministry of Labour and Youth Development, 1991) has shown that there were 2.37 million people engaged in informal sector activities, 60% of which were based in rural areas and the rest in urban areas. Dar es Salaam alone accounted for 13.3% of all the informal sector activities. At that time the informal sector employment was 22% of all employment, but this percentage is likely to have increased significantly, due to the recent retrenchments in the civil service, slow growth of other economic sectors, and the ever increasing number of job seekers.

2.3 Urbanisation in Dar es Salaam

Dar es Salaam City, the Heaven of Peace, is the main engine of socio-economic

Table 3: Estimated number of inhabitants of Dar es Salaam

1975	638,000
1990	1,436,000
1995	2,5 - 3,000,000
2015	3,965,000

growth in Tanzania, and is seven times larger than the next urban centre of Mwanza. It has an estimated population of 2.5 to 3.0 million people and a growth rate of 8% per annum, making it one of the fastest growing cities in Sub-Saharan Africa. The high rate is mostly caused by internal migration rather than natural population increases.

The City is severely constrained in infrastructure provision and service investments, which have lagged behind

effective demand:

- Over 70% of the City population live in unplanned settlements with limited access to water, sanitation, drainage, roads, electricity, etc. Current estimates show that there are 44 such unplanned settlements in Dar es Salaam (a map of Dar es Salaam is given in Annex 1).
- About 75% of the households rely on pit latrines, which can lead to extensive contamination of ground water.
- Solid waste collection is seriously deficient, leading to extensive contamination in the streets and health hazards.
- The daily requirement for water in the city is 80 million gallons, whereas only about 60 million are available, and only 40 million gallons reach consumers. The water shortage is especially severe during the dry season. In 1992, only about 22.6% of the dwelling units in the city had inside piped water connections, while others obtained water from other sources.
- Secondary and tertiary roads are in poor state. Currently the city requires a seed capital of approximately TShs. 25-30 billions to rehabilitate its broken down social and economic infrastructure including roads, bridges, revival of equipment and plant (B C Mwenda, 1996).

- Traffic congestion, air pollution and lack of parking facilities are also major problems in the City.

3 The role of the Tanzanian Central Government in urban upgrading

3.1 Towards the upgrading of unplanned settlements

Like many other developing countries, Tanzania, in the period just after independence (1964-1968), viewed unplanned settlements as slums which needed to be demolished. In fact, the first slum clearance scheme was carried out at Buguruni in Dar es Salaam. The scheme was halted in the early 1970's because it proved to be costly in social terms and it created more homelessness.

After this bitter experience, the Government adopted more humane policies from 1972. By October, 1972, the Government had already approved two cabinet papers, Nos. 81 and 106 which paved the way for the improvement of unplanned settlements.

Based on the cabinet papers, the Ministry of Lands, Housing and Urban Development created a special Unit in its Ministry, the Sites and Services and Squatter Upgrading Project Unit, which was given the mandate to upgrade unplanned settlements in six regional towns: Dar es Salaam, Mbeya, Tabora, Iringa, Tanga and Morogoro. Serviced plots were also provided in the above mentioned towns and another town, Mwanza.

The upgrading projects were implemented between 1974 and 1981. Funds were made available by the Government of Tanzania and the International Development Agency (IDA) of the World Bank.

The Sites and Services Project Unit still exists in the Ministry but its main focus today is in the provision of surveyed plots.

It is important here to mention that the Sites and Services Project Unit was created in the Ministry of Lands, Housing and Urban Development because at that particular time (1974), the Local Authorities were abolished. They were restored in 1982.

3.2 The role of National Ministries

MINISTRY OF WORKS AND MINISTRY OF LOCAL GOVERNMENT

The provision of urban infrastructure, particularly roads and storm-water drainage in Tanzania, falls under the jurisdiction of two Ministries: The Ministry of Works, and the Ministry of Local Government through the City, Municipal or Town Councils. Currently the Ministry of Local Government falls under the Prime Minister's Office.

The Ministry of Works is responsible for providing and maintaining national trunk roads, regional and core rural roads.

The City, Municipal or Town Councils are responsible for the construction and maintenance of the local roads in their respective areas. Funding for regular

City, Municipal or Town activities is provided from their respective budgets and subsidies from the Central Government.

The formation and operation of the urban authorities is controlled by the Local Government (Urban authorities) Act of 1982. According to the Act, each urban authority is governed by an elected council of councillors, members of Parliament and five to six members nominated by the Minister of Local Government. The City and Municipal Councils are presided by elected Mayors. Each urban authority has a minimum of six committees: Administration and Finance; Health and Social Welfare; Education and Culture; Works and Communication; Town/Urban Planning; and Trade and Economic Planning. The Human Resources Deployment Act of 1983 required all urban authorities to have a seventh committee - the Human Resources Deployment Committee.

The Management Team of the City, Municipal or Town Council is headed by a Director who is appointed by the President. The Director is the chief executive of the Council.

OTHER MINISTRIES

Other Ministries are also in one way or the other responsible for the provision of infrastructure in unplanned settlements:

- Ministry of Lands, Housing and Urban Development - responsible for policies related to lands, housing and urban development.
- Ministry of Finance - responsible for the preparation of five year Development Plans (Planning commission) and annual budgetary allocations to the other ministries.
- Ministry of Labour and Youth Development- responsible for employment policies, labour laws and youth development
- Ministry of Higher Education - responsible for training personnel in institutions of higher learning.

Besides National Ministries, Utility Agencies, such as the National Urban Water Authority (NUWA) and Tanzania Electric Supply Co. (TANESCO) provide water and electricity respectively to the unplanned settlements.

3.3 Policies and strategies on housing and human settlements

HOUSING POLICY

Tanzania's housing policy was endorsed in 1981, and was the first Government statement on housing since independence. Its principal objective was to ensure that all the people of Tanzania had adequate access to shelter and basic services. The policy was in many ways ahead of its time because it adopted an "enabling approach" which was later adopted by the UN as part of its Global Strategy. The policy was, however, not comprehensive. It focused on housing alone and not the broad aspects of human settlements. Moreover, the Ministry of Lands, Housing and Urban Development did not put up a clear institutional arrangement for implementing the policy, nor did it define a programme of action. As a result, the programme was only partly implemented and has not made significant impact in housing development.

STRATEGY FOR THE NATIONAL SUSTAINABLE HUMAN SETTLEMENTS DEVELOPMENT PROGRAMME (NSHSDP)

In 1993, Tanzania adopted the Strategy for Sustainable Human Settlements Development Programme.

The Strategy consists of four closely interrelated elements:

- Improving the capacity of public sector institutions to implement the NSHSDP;
- Improving the management of urban land, access to affordable urban services and the living environment;
- Improving the quality and increasing the quantity of shelter;
- Stimulating economic growth and employment.

At the time when the Government was undertaking the development of the NSHSDP, it was also implementing the first phase of the Sustainable Dar es Salaam Project (for details see chapter 5).

The estimated cost for implementing the NSHSDP is shown in Table 4.

The sources of funds for the various project components are yet to be identified. However, as of July 1996, the United Nations Development Programme (UNDP) is providing support worth US\$ 3.6 million in the fields of Environmental Management (US \$ 1.55 million) and Sustainable Human Settlements (US \$ 2.05 million). UNDP's detailed budget for the programme is shown in Table 5.

The establishment of the Municipal Support Unit will enable the Government to extend the experiences gained in the First and Second Phase of the Sustainable Dar es Salaam Project to other towns and municipalities in the country.

Table 4: Financial requirement for the National Programme on Sustainable Human Settlements Development (US \$ 1,000)

Components	Yr1	Yr2	Yr3	Yr4	Yr5	Total
1.1 Capacity building in public sector institutions	586	594	270			1450
1.2 Urban Land management including site development	2080	2750	2255	2000	2000	11085
1.3 Urban Shelter		5058	6040	8000	2069	21167
1.4 Private Sector and CBOs	265	585	500			1350
Total	2931	8987	9065	10000	4069	35052

Source: UNDP 1996; Programme Support Document for National Environment and Natural Resources Management.

Table 5: UNDP's Contribution to NSHSDP (US\$ "1000")

Sub-programme/component	1995	1996	1997	Total
Environmental Management				
• 1.1.Division of Environment	100	150	50	300
• Department of Water Affairs	75	150	125	350
• Watershed Management Usangu	80	100	70	250
• Rainwater Harvesting	266	100	134	500
• Environmental Information system	50	50	50	150
<i>Subtotal</i>	<i>571</i>	<i>550</i>	<i>429</i>	<i>1550</i>
Sustainable Human Settlements				
• Sustainable Dar es Salaam Phase II	250	350	113	713
• Municipal Support Unit		200	212	412
• Sustainable Arusha	75	150	50	275
• Sustainable Zanzibar	75	125	100	300
• Hanna Nassif Community	265	85	-	350
<i>Sub-total</i>	<i>665</i>	<i>910</i>	<i>475</i>	<i>2050</i>
Total	1236	1460	904	3600

Source: UNDP 1996; Programme Support Document for Environment and Natural Resources Management.

Policy statements on land tenure

- *“All land in Tanzania is public land vested in the President as a trustee on behalf of the citizens*
- *Residents in unplanned settlements shall have their rights recorded and maintained by the relevant land allocating authority and that record will be registered;*
- *Land has value;*
- *Full, fair and prompt compensation shall be paid when land is acquired;*
- *In order to enhance and guarantee women's access to land and security of tenure, women will be entitled to acquire land in their own right not only through purchase but also through allocation;*
- *Consent of spouse(s) will be required before disposition of matrimonial or family land;*
- *Allocation of land for residential and institutional uses whenever possible will be on a cost recovery basis”*

Policy statements on Urban Planning

- *“Urban land use and development plans will aim at more intensive use of urban land. In order to achieve this objective the government will revise all space and planning standards, including standards for provision of infrastructure.*
- *Existing unplanned settlements will not be cleared but will be upgraded and provided with facilities for adequate sanitation and other basic services except for unplanned housing in hazardous areas.*
- *Upgrading plans will be prepared and implemented by local authorities with the participation of residents and their local community organisations. Local resources will be mobilised to finance the plans through appropriate cost recovery systems.”*

Source: National Land Policy, 1995

3.4 The National Land Policy (1995)

The National Land Policy (1995), provides a comprehensive overview of all matters concerning land tenure, land administration, surveys, mapping, urban and rural land use planning and land use management.

The National Policy goes a long way in legalising unplanned settlements, and providing inhabitants of unplanned settlements with legal rights on land. In addition, the Policy calls for the upgrading and servicing of unplanned settlements, with the participation of residents and CBOs and NGOs.

Some of the major policy statements on land tenure and urban planning as quoted from the Policy are given in the box.

Already, a draft new Land Law to effect the 1995 land Policy is in place. The draft Law is expected to be discussed in the Parliament early 1997. The proposed Law will supersede the Town and Country Planning Ordinance (1961), which is the existing principal legislation for spatial planning in Tanzania.

3.5 Employment policy and programme

NATIONAL EMPLOYMENT POLICY (NEP)

The Government is in the final stages of preparing the National Employment Policy which also incorporates the Informal Sector. Some of the broad objectives of the policy are to:

- provide an institutional

framework for effective co-ordination of employment promotion;

- identify sectors of high employment potential and propose ways to increase employment in those areas;
- provide an enabling environment for local and international organisations to participate in employment promotion.

NATIONAL PROGRAMME OF ACTION FOR SUSTAINABLE INCOME GENERATION (IGP)

IGP is a five year program of action to create and expand sustainable income generation projects in three sectors: agriculture, infrastructure and informal sector.

The IGP has highlighted infrastructure as a sector with great short and medium term income generation potentials in urban and rural areas. In its portfolio of proposed projects, IGP proposes to raise an estimated US\$ 1,500,000 for Community Based Settlements Upgrading Projects to Alleviate Urban Poverty².

3.6 Labour Laws

Most of the labour laws in place are out-dated and do not reflect the present socio-economic situation of Tanzania. Most notably, they do not reflect the change into a market economy after 30 years of socialism, and the opening up of the political system to multi-party democracy. Most of these laws are therefore presently being reviewed.

The most important law for labour-based upgrading of unplanned settlements is the *Human Resources Deployment Act* (1983), which was passed in order to solve the problem of unemployment in the urban areas, particularly among the youth and schools leavers. Local authorities were given the mandate to design employment programmes in their areas of jurisdiction.

The Act was a turning point in public policy in the sense that the whole issue of possible income generating activities, particularly in urban areas, was addressed. Each Urban Authority was empowered to establish a separate Human Resources Deployment Committee. In its efforts to implement the Act, the Dar es Salaam City Commission (former City Council), approved and issued licenses to 57 different informal sector activities conducted on locations approved by the council. The list of such activities has grown considerably since then.

Today, the Human Resources Deployment Act is being reviewed. Some aspects of the Act are now being incorporated in the National Employment Promotion Centres Act which is being proposed.

Other labour laws are (in chronological order):

WORKMEN'S COMPENSATION ACT, 1949 (WCA)

² United Republic of Tanzania; National Programme of Action for Sustainable Income Generation.

The WCA provides for compensation to workmen for injuries suffered in the course of their employment. A range of benefits are provided for incapacitation - temporary/permanent, partial/complete, as well as in the case of death. It provides for methods of calculation of benefits based on previous earnings of the worker concerned. It covers also disabilities arising from occupational diseases.

REGULATION OF WAGES AND TERMS OF EMPLOYMENT ORDINANCE, 1953 (WTE)

The WTE provides for the establishment of minimum wage boards and wages councils and otherwise for the regulation of the remuneration and terms of employment of employees. The most recent Order under this act became effective on 1 May, 1996 and provides minimum terms for all employees in the country, including domestic and casual as defined.

The minimum wage contained in the Act is likely to change because the minimum monthly wage today is TShs.30,500/= against the previous Tshs. 17,500 (1 US\$ = TShs. 600/=).

EMPLOYMENT ORDINANCE 1957 (E.O)

The EO regulates conditions of employment for employers and employees in the United Republic of Tanzania. Its provisions address:

- The labour advisory board
- Appointment, powers and duties of officer
- Contracts of service - oral and written
- protection of wages
- employment of women, youths and children
- care and welfare of employees
- recruitment
- forced labour
- remedies, jurisdiction and procedure of courts and
- offence

NATIONAL PROVIDENT FUND ACT, 1964 (NPFA)

The NPFA sets up a savings plan for employee member into which employers are obliged to contribute from deductions from the employee's wages.

SEVERANCE ALLOWANCE ACT, 1962; AMENDED IN 1975 (SAA)

The SAA was amended in 1975. It essentially provides that a severance allowance shall be paid upon the termination of employment. Provisions are made for harmonisation with pensions, gratuities upon termination, gifts, etc. and the terms of " casual employee", " contract of service", "employee" and "employer" are defined as in the Employment Ordinance.

The Severance allowance Act requires an employer to pay severance allowance to an employee who is employed on a weekly or monthly basis and has worked for at least three consecutive months. Severance allowance is 5% of the basic wage of twelve months.

OTTU Act, 1991

The Act establishes the Organisation of Tanzania Trade Unions, OTTU, as the sole union representative of all workers in the United Republic of Tanzania. Persons are not obliged to become a member of OTTU. The Act *inter alia*, authorises OTTU to require dues deductions by employers for his/her employees who are members of OTTU.

3.7 Training Opportunities

URBAN PLANNING

The University College of Lands and Architectural Studies (former Ardhi Institute) is the only college in the country which offers specialised degree courses in fields related to lands and human settlements development. These include: Architecture, Urban and Regional Planning, Environment Engineering, Land Surveying, Building Economics and Land Management and Valuation. However, no specific attention is given to community management or labour based technology.

The Institute for Housing and Building Research of the University, conducts research and regular Post Graduate short courses and seminars on a wide range of topics, but — again — no courses on community management or labour based technology are offered.

LABOUR BASED TECHNOLOGY

The University of Dar es Salaam offers degree courses in engineering, while three Technical colleges at Mbeya, Arusha and Dar es Salaam offer higher diplomas in Engineering. The university recently included a section on labour based technology in its curricula, with the assistance of the ILO. Some research into labour based roadworks is conducted as well. However, urban labour/ community based engineering is not part of the curricula, and engineers can thus not be expected to effectively implement such an approach. Indeed, the traditional approach is somewhat contradictory to community participation.

The Appropriate Technology Unit in the Directorate of Rural Roads of the Ministry of Works is responsible for awareness creation and training in Labour Based (LB) methods. Awareness is usually created through organised workshops and seminars. Training on LB methods and techniques for rural roads construction and maintenance is offered at two training centres: Lushoto and Mbeya. While the two training centres have capacities to absorb additional courses a year, the LB unit in the Ministry is thinly staffed and needs further strengthening.

In addition, the Ministry of Works in cooperation with NIGP carry out training for labour based road contractors, through the National Construction Council (NCC). This is a parastatal responsible for the development of local consulting and construction industry in Tanzania. From 1992, NCC has been conducting training courses for small and medium sized contractors in labour based road construction and maintenance techniques in Kilimanjaro and Mwanza regions.

The trained contractors are use LB methods in the construction and maintenance of rural roads.

The Ministry of Works and the NCC have not carried out LB training which is focused on urban areas. It is not easy at this point to suggest that the LB training for rural roads can be easily adopted in the urban areas, more so when these areas are unplanned. Further research on the adoption/adaptation of rural experience in urban settings needs to be conducted.

COMMUNITY MANAGEMENT

There are three training institutes in the country which offer specialised courses in Community Development. These are the Tengeru, Rungemba and Buhare Community Development Training Institutes. The one at Tengeru offers both Ordinary certificates and Advanced diplomas.

INTERNATIONAL TRAINING

Outside the country there are various institutions which offer degree or post degree courses in lands and human settlements development. Kisii Training Centre in Kenya offers specialised courses for engineers, technicians and trainers on labour based roadworks. Training on urban upgrading is offered by the University of Loughborough (UK), but at a high cost.

3.8 Conclusion

The policy environment is becoming more conducive for labour/ community based approaches to upgrade unplanned settlements. However, implementing the policies may prove more difficult. It requires strong institutions at all levels and strong links between institutions. Training opportunities on labour/community based upgrading of unplanned settlements for engineers, planners, technicians, community mobilisers, and communities are presently inadequate as well.

4 The Dar es Salaam City Commission (DCC)

4.1 Introduction

The Dar es Salaam City Council was dissolved by the Government on 28 June, 1996 because it failed to discharge its duties. After the dissolution, a City Commission was appointed to run the affairs of the City for a period of approximately one year. Some of the broad Terms of Reference given by the Prime Minister to the City Commission and which are of interest to the study include:

- √ Decentralisation of the city administration to the Greater City Council and three municipalities i.e. Ilala, Temeke and Kinondoni. This calls for "restructuring of the Wards (Kata) as nucleus of all economic, political and social development, bearing in mind grassroots participation through such organs as CBOs and NGOs and particularly conceiving their roles and responsibilities within the broader context of city Administration, governance, political and democratic process as well as revenue management (B.C. Mwenda, 1996).
- √ Legal reforms consisting of main and by-laws.
- √ Review of the 1979 Master Plan and developing a corporate plan embracing the Greater City and the Municipalities and their departments.

The former Dar es Salaam City Council, derived its powers from the Local Government (Urban authorities Act. No.8 of 1982 (as amended in 1992). The Council had a total of 62 Councillors: 52 elected from each of the 52 wards which make the City and 10 nominated under special seats i.e. Women.

The Council was presided by an elected Mayor who was being assisted by a Deputy Mayor. The Management Team of the City Council was headed by a Director who was assisted by a Deputy Director and heads of various departments as shown in Annex 3.

4.2 Source of Funds

The Local Government Finance Act (1982) and the Urban Authorities (Rating) Act of 1993 are the two major Acts which the council can use to generate revenue. There are also various Dar es Salaam City Council by-laws which are used in order to raise revenue.

Despite the Acts and by-laws, the dissolved City Council was not able to raise sufficient funds to support the services it is meant to provide. As such, it has always depended on subsidies from the Central Government - which were not readily forthcoming.

Faced with this situation, the City Council, through the Government of Tanzania, sought for technical assistance from the United Nations to assist in building up within the Council a capacity for incorporating environmental concerns into

development management practices and procedures. This resulted in the Sustainable Dar es Salaam Project.

4.3 Sustainable Dar es Salaam Project (SDP)

SDP was launched in 1992 and became fully operational towards the end of 1993. Its overall objective was to strengthen the City Council's capacity to plan and manage growth and development of the City in partnership with other public sector parties, the private sector, popular sector and interested groups on a sustainable basis.

The SDP process goes through the following stages:

1. Prioritising environmental issues;
2. Preparing environmental strategies;
3. Preparing action plans (through cross-sectoral and multi-institutional working groups);
4. Preparing a Strategic Urban Development Plan.

In August, 1992, the "City Consultation" workshop attended by the public, private and popular sector representatives identified and prioritised the city's most pressing environmental issues as:

- √ Improving Solid Waste Management
- √ **Upgrading Un-serviced Settlements**
- √ Servicing City Expansion
- √ Managing Surface Waters and Liquid Wastes
- √ Air Quality Management and Urban Transportation
- √ Managing Open Spaces, Recreational areas, Hazard lands, Green belts and Urban Agricultural potential
- √ Managing the Economy and Integrated Petty Trading
- √ Co-ordinating City Centre Renewal
- √ Managing Coastal Resources

SDP'S STRATEGY FOR UPGRADING UNPLANNED SETTLEMENTS

SDP has adopted a two point strategy of action to address the question of upgrading unplanned settlements:

- √ Encouraging community groups to form associations, define their priority needs, mobilise local human and financial resources, decide affordable standards, seek technical advice, participate in infrastructure construction, and accept management responsibilities for operations and maintenance.
- √ Encouraging City and Central Government departments to provide the institutional environment to respond to such community participation, including the formation of a CBO "response" group (Technical Support Unit) of community development officers, planners, surveyors, sanitary engineers etc.

INSTITUTIONAL FRAMEWORK

The Upgrading of Unplanned Settlements falls under the Department of Urban Planning and the head of the department is the National Programme Coordinator of SDP. However, staff members from all traditional departments of the City Council are actively involved in the SDP process, which makes it easy for any environmental co-ordinator to have inputs in the upgrading exercise.

The institutional framework is given in Annex 4.

PROJECT BUDGET

After three and a half years of operation, (1992 - June 1995) UNDP's contribution to SDP was US\$ 1,754,393. The proposed budget for the July 1995 - Dec. 1996 was US\$ 816,500. Therefore, the total proposed budget for SDP activities for a five-year period is US\$ 2,517,893 (UNCHS, 1995).

4.4 Main constraints of the DCC in Infrastructure Provision

4.4.1 DCC is Young

The local authorities in Tanzania, including the DCC were reintroduced in 1984 after having been abolished in 1972. It can therefore be said that they are relatively new — only 12 years old.

The Dar es Salaam City Council has now been dissolved as of June 1996 and will have a new structure in the foreseeable future.

Because of its infancy (12 years), the DCC does not have adequate experienced staff to handle its challenging tasks. Moreover, the majority of the present staff members have not received training specific to the work of Local Government because they were seconded from the Central Government ministries.

4.4.2 Limited experience with labour-based technologies

Road construction and rehabilitation in Dar es Salaam has always been awarded to first, second and third class contractors who are largely equipment based.

At times the DCC has rehabilitated minor roads using force account. Except for the Hanna Nassif project (see chapter eight), there is no other significant project which has applied labour based technologies in the city. Informal discussions with some key DCC staff members have revealed that LBT is almost unknown. In fact, they consider that roads built by using LBT are "inferior" in quality.

4.4.3 "Nightmares" in road construction

Reports from the Presidential Commission which was established to investigate corruption in the country has, among other things, revealed that road construction by private contractors leaves a lot to be desired (Daily News, 11 December, 1996) The sector is characterised by:

- favouritism in awarding tenders;

- increase of contract values by between 101% to 353%;
- poor workmanship;
- delays and non completion of projects; and
- consultant's advice is not followed.

4.4.4 Weak Revenue Base

The City Commission has a weak revenue base. Besides being weak, revenue planning and management is poorly co-ordinated and enforced. As an illustration, the 1995 recurrent expenditure for the DCC was Tshs.7.0 billion but only Tshs.700 million i.e. 10% was collected. In the same year, the projected development budget was Tshs.115 million, but the Central Government gave a subsidy of only Tshs.8.0 million (B C Mwenda, 1996)

Since the appointment of the City Commission, however, the city administration has established and implemented an aggressive revenue collection workplan. Impressive results have been recorded so far. TShs. 1.8 billion was collected in six months (Jul - Dec 1996). The amount is three times what the dissolved City Council collected in one year (Daily News, 11 December, 1996)

4.4.5 Weak enforcement of Laws

Although the local council structure goes as far as the Ward and Mtaa (hamlet) level, enforcement of council laws and by-laws is very weak. It is for this reason that one of the activities of the City Commission is to restructure the Ward as the nucleus of all economic, political and social development, bearing in mind people's grassroots participation through such organs as CBOs and NGOs.

4.4.6 Demoralised staff

Staff salaries in Tanzania are generally low. Equally low are the salaries of Local Government workers. Some DCC staff are demoralised because of the low salaries, lack of adequate working facilities and poor career prospects.

4.5 Conclusions

The appointment of the City Commission and the establishment of the Sustainable Dar es Salaam Project create the opportunity to strengthen the city administration and to introduce new approaches. However, at present the city administration still faces many problems. To promote labour based methods to upgrade unplanned settlements, furthermore, requires deliberate efforts to change the attitudes of the staff.

5 The role of NGOs AND CBOs

5.1 The role of NGOs and international support agencies

There are more than 200 registered national NGOs in Tanzania, but information on their activities is scanty. The NGOs are working in the field of AIDS prevention, education, environment, health, religion, general socio-economic development, gender issues and youth issues. However, most of them are hardly five years old, and, as such, are institutionally weak. Interviews show that many are ill-equipped in terms of qualified personnel, logistics, and equipment. In urban upgrading, their role is thus still marginal.

However, various international NGOs and U.N. organisations execute infrastructure projects, and assist CBOs in implementing community-based works (see section 8 for descriptions of the projects). These are:

- ✓ ***Plan International***, a child focused international NGO which opened offices in Tanzania in 1991. By now, Plan International has offices in Dar es Salaam, Mwanza and Kilombero, involved in improving living conditions.
- ✓ ***International Labour Organisation***, which executed the first phase of the Hanna Nassif Pilot Project and is a co-operating agency for the second phase. The ILO actively promotes productive employment through labour-based technologies and employment-intensive management of solid waste in cooperation with other agencies. A study has been conducted into the linkage between infrastructure development and improved productivity and working conditions in informal sector enterprises.
- ✓ ***World Health Organisation***, which just started the Healthy City Project.
- ✓ ***UNCHS (Habitat)***, which provides technical advice to the Sustainable Dar es Salaam Project (see section 5.3).

The role of international organisations is thus significant, though the sustainability of their efforts still has to be proven. Other international agencies function primarily as donor agency, and are mentioned in chapter 7.

So far, Tanzania has no policy on NGOs. It is only recently that UNDP has commissioned ILO to undertake a comprehensive study on policy guidelines for NGOs.

5.2 The role of NGO umbrella organisations

There are two umbrella organisations for NGOs in Tanzania mainland: Tanzania Council for Social Development (TACOSODE), and the Tanzania Association of Non Governmental Organisations (TANGO). Both are based in Dar es Salaam, and both can play a potentially huge role in urban upgrading.

TACOSODE is the new name for what was formerly known as National Council on Social Welfare Services which was registered in Tanzania in 1965 as a Voluntary co-ordinating body for NGOs. The new name was adopted in 1978 when the organisation changed focus from welfare orientation to social

development. TACOSODE is affiliated to the International Council on Social Welfare and is a member of several International Organisations. The City Commission is a Honorary member of TACOSODE.

The aims of TACOSODE are:

- √ to promote and strengthen the NGOs professional competence and capability through skills training;
- √ to provide a forum for maintaining, sharing and exchanging information on NGOs activities and for making such information accessible to all interested parties;
- √ to facilitate and promote cooperation and collaboration among NGOs and between them and the communities;
- √ to act as a liaison and link between member organisations and relevant Government Ministries and promote general understanding and cooperation between the NGOs and the Government;
- √ to develop and implement joint programmes for NGOs or communities and provide or facilitate provision of technical assistance to the same;
- √ to monitor NGO activities and promote evaluation of these activities in order to improve efficiency in service delivery;
- √ where necessary, to act as a clearing house for NGOs/Donor development grants and
- √ to advice the Government on matters concerning NGOs generally as well as on registration of new NGOs.

TANGO on the other hand was founded in 1988 and registered in 1989. Its main objectives are:

- √ to act as a unifying organ among its members;
- √ to establish among its members a forum for co-ordination and systematic exchange of information and experience;
- √ to encourage the carrying out of studies and programmes on matters of common interest;
- √ to establish consultancy services and training programmes in order to sustain activities of constituent NGOs.

As one of its activities, TANGO has published a Directory of the Non-Governmental Organisations in Tanzania, including a list of some International NGOs based in Tanzania.

5.3 The role of CBOS

Like NGOs, there are many CBOs and more are being formed. Some are registered while others are not.

In February, 1995, the University College of Lands and Architectural Studies (former Ardhi Institute) carried out a study into the role of CBOs in unplanned settlements in Dar es Salaam. The city-wide study identified eight CBOs at varying levels of legality, consolidation and representation:

1. ***Mbezi Juu Co-operative Society Ltd***- started in 1992 as a co-operative society. Recently it was registered as the Mbezi Development Association

with 122 members. Expressed priority needs include to develop Mbezi Block "C" market site, and to improve physical and social infrastructure in the neighbourhood.

2. ***Kinondoni Shamba***, an emerging CBO - aims at improving access and storm water drainage in the settlement.
3. ***Hanna Nassif Community Development Committee***, which started in 1994 with the key purpose of improving storm-water drainage in the area.
4. ***Kigogo Women Advancement Trust*** - started to combat the severe water shortage in Kigogo. It has so far succeeded in repairing part of existing water pipeline. It has also constructed a bridge.
5. ***Tabata Development Fund*** - started as a pressure group in 1993 against the City Council's Tabata dump. Now it aims to improve the local water supply, and to spine road upgrading and drainage.
6. ***Kijitonyama Mpakani Development Trust Fund*** - registered CBO with 106 members. Its main priorities include provision of sewerage followed by access roads and storm water drainage.
7. ***Kijitonyama Development Association*** - registered in March, 1993 with 7150 members. Expressed priority needs include access roads, storm-water drainage, and construction of bridges.
8. ***Makongo Village Development Fund***- aims at preparing a Land use Plan for the village and implement it, construct the spine road and supply piped water.

These CBOs can and should play a significant role in the development of (minor) infrastructure and in the delivery of minor public services, such as primary solid waste collection.

5.4 Limitations of CBOs

Although there are many CBOs engaged in infrastructure provision in Dar es Salaam, literature on their activities is limited and uncoordinated. There is a need therefore, to undertake an in-depth study of their achievements and limitations.

Interviews with people who are working with CBOs have shown that they face some of the following problems:

- ✓ it takes long to have them registered because the established procedures are lengthy and not clearly understood by many
- ✓ they lack transparency, especially in financial matters
- ✓ they have a limited objective, and once the objective is met, the CBO disintegrates
- ✓ they lack training in leadership skills
- ✓ they do not have adequate working tools and equipment
- ✓ they have limited capacity in record keeping, report writing, local resources mobilisation, conflict resolution etc.

In any community based upgrading project, these problems need to be overcome, before the project can become sustainable. This requires considerable time and effort.

5.5 Conclusions

International NGOs and CBOs play a significant role in upgrading unplanned settlements, but their role can further be expanded. Of significant importance is to further link their efforts. The Sustainable Dar es Salaam Project can (continue to) play this networking role.

The role of national NGOs can further be expanded, based on the strengthening of their umbrella organisations and individual NGOs. The UNDP funded and ILO executed study is a first step in this direction.

6 The role of donor organisations

Several donors have funded, and continue to fund, infrastructure development programmes in Dar es Salaam. Well known donors include the World Bank, Japanese Government; United Nations Development Programme, (UNDP), Ford Foundation, European Union, National Income Generation Programme (NIGP), PLAN International and the Irish Government. Concern, an international NGO, recently join this list.

As will be discussed later, the first three donors have funded large scale infrastructure development studies and programmes in Dar es Salaam and elsewhere, and the rest (including UNDP) have funded projects in unplanned settlements.

6.1 World Bank

URBAN SECTOR ENGINEERING PROJECT (USEP)

The World Bank, through the International Development Agency, had funded the Sites and Services and Squatter Upgrading projects in the mid 1970s and early 1980's. In 1992, the World Bank provided funds for the Urban Sector Engineering Project which covered Dar es Salaam and eight municipal towns. USEP's objective was to prepare a ten-year Strategic Integrated Infrastructure Investment Programme for the towns. Infrastructure services covered by the programme include: roads, drainage, water supply, sewerage/sanitation and solid waste management.

The accumulated investment costs per sector and per town for the period 1992 - 2002 are shown in table 6.

INTEGRATED ROADS PROJECT (IRP)

The World Bank is also co-ordinating a ten year Integrated Roads Project which is expected to stabilise the conditions of trunk and rural roads which are essential for agricultural production (1991-2000; W A Lyatuu, 1995).

The estimated project cost is US\$ 1.4 billion and is being shared by the Government and 18 donors.

Part of the IRP funds have been used to finance the Dar es Salaam Region Periodic Maintenance and Emergency Road Repair Programme. One of the outstanding achievements of IRP has been the reduction of force account activities in road maintenance and rehabilitation (in the Ministry of Works) and the continued use of local small scale contractors trained in labour based methods. Because of

Table 6: Accumulated Investment Costs per Sector (1992 - 202) Mln US\$

Town	Accumulated Investment costs per Sector: 1992-2002					Total costs
	Roads	Stormwater Drainage	Water Supply	Sewerage/ Sanitation	Solid Waste	
Dar es salaam	101.1	15.3	179.2	27.0	11.3	333.9
Tanga	13.1	3.2	19.5	3.3	1.3	40.4
Moshi	16.7	0.4	22.5	6.8	1.5	47.9
Arusha	13.0	0.3	11.4	3.3	1.2	29.2
Mwanza	21.9	2.1	15.5	5.1	2.0	46.6
Tabora	18.2	1.5	22.6	2.0	1.0	45.3
Iringa	11.1	-	13.7	2.9	1.0	28.7
Mbeya	11.4	0.7	41.5	3.0	1.6	58.2
Morogoro	18.0	1.5	23.5	3.2	1.2	47.4
Total for 8 towns	123.4	9.7	170.2	29.6	10.8	343.7
Total costs per sector	224.5	25.0	349.4	56.6	22.1	677.6

Source: Cowi Consult/Inter-Consult, Urban Sector Engineering Project, volume One.

this change, the number of locally registered road contractors has increased from about 40 in 1991 to over 200 (W.A. Lyatuu, 1995).

NON MOTORISED TRANSPORT (NMT)

The Bank has funded studies on Non motorised Transport in Dar es salaam. In 1994, a pilot project on NMT was implemented in Temeke District, Dar es Salaam.

COMMUNITY INFRASTRUCTURE PROGRAMME (CIP)

In collaboration with the Irish Government, the World Bank is funding the Community Infrastructure Programme which covers Tabata and Kijitonyama.

URBAN ENVIRONMENTAL SANITATION

This GTZ funded project supports the development of an appropriate legislative and institutional framework for urban environmental sanitation, the design, piloting and implementation of activities, and its documentation and consensus building. The project started in 1997 and is expected to end in 2002 (Regional Water and Sanitation Group Eastern and Southern Africa, 1997).

6.2 Japanese Government

Dar es Salaam City has greatly benefited from grant aid provided by the Japanese Government. From 1990, Japanese official development assistance in infrastructure development has been in:

- √ Road improvement and maintenance (US\$ 24.7 million);
- √ Telecommunications Network Rehabilitation (US\$ 11.3 million);
- √ Reinforcement of Power distribution Network (US\$ 6.9 million);

- √ Feasibility study on solid waste management.

From 1990, Japan has been making small grants to NGOs/CBOs engaged in:

- √ Human Resource Development;
- √ Public health and sanitation;
- √ Community environmental issues;
- √ Environment Conservation;
- √ Workshops/seminars etc.;

The number of such projects has increased from one in 1990 to 16 in 1995.

6.3 United Nations Development Programme (UNDP)

UNDP funds the following projects:

SUSTAINABLE DAR ES SALAAM PROJECT (SDP)

As outlined in Chapter five, UNDP has funded Environmental Management Programmes in Tanzania and will continue to fund the second phase of the Sustainable Dar es Salaam Project.

COMMUNITY BASED SETTLEMENT UPGRADING PROJECT - HANNA NASSIF

UNDP has contributed technical assistance worth US\$350,000 to the Community Based Settlement Upgrading Project in Hanna Nassif (March 1994 - Dec. 1996).

THE LOCAL FACILITY FOR URBAN ENVIRONMENT (LIFE)

Through LIFE, UNDP has funded several environment based NGO/CBOs in Dar es Salaam, Mwanza and Zanzibar since 1994. LIFE's annual budget is US\$ 75,000. The Hanna Nassif Project has received US\$ 18,000 from LIFE, for the procurement of construction materials.

6.4 Ford Foundation

The Ford Foundation has given a grant of US \$ 200,000 to the Community Based Settlement Upgrading project in Hanna Nassif. Part of the amount (US\$ 25,000), was specifically geared towards capacity building of the local CBO implementing the project. The Foundation is likely to continue funding part of the Second Phase of the project which is expected to start early 1997.

6.5 European Union

In 1993, the European Development Fund (EDF) Micro-projects, made a grant of US\$ 28,736 to the Community Based Settlement Upgrading Project in Hanna Nassif for the procurement of small equipment (Concrete mixer, vibrator etc.) and construction materials (sand, cement, aggregates, timber etc.).

Under Lome IV, the European Union has recently introduced a Decentralised Cooperation Programme (1997 - 2000) which will provide funds for development projects in the African, Caribbean and Pacific (ACP) states

provided that the operations and agents undertaking the projects are non profit making. A meeting to discuss how the funds can be made available is expected to be held early 1997.

6.6 National Income Generation Programme (NIGP)

NIGP, which is a local non profit Trust Fund set up by the Government, UNDP and other donors, aims at creating and expanding sustainable income generation projects. The focus of NIGP is in three sectors: agriculture and rural development, infrastructure and micro-enterprises development.

The second phase of the Community Based Settlement Upgrading Project in Hanna Nassif is executed by University College of Lands and Architectural Studies UCLAS and funded by NIGP and Ford Foundation. The project aims at completing the remaining roads and drainage in the settlement, provision of portable water and solid waste management.

6.7 Plan International

PLAN provides technical assistance and investment funds to the unplanned settlements Buguruni and Vingunguti (see chapter 8).

6.8 Irish Government

The Irish Government and the World Bank are funding the on going Community Infrastructure Programme in Dar es Salaam(chapter 8).

6.9 Other Donors

Interviews with other donors - the United States Agency for International Development (USAID), Norwegian Agency for Development Cooperation (NORAD) and Africare (Tanzania) have shown that they implement infrastructure development programmes which are focused on rural infrastructure and roads.

In Dar es Salaam, the German International Development Agency (GTZ) is funding micro enterprise development projects in collaboration with the Small Scale Industry Development Organisation (SIDO).

It was not easy to establish whether these Agencies are making small grants to NGOs/CBOs engaged in urban infrastructure projects like the Japanese Government.

6.10 Conclusions

More and more donor organisations are recognising the need to fight urban poverty, and do so by supporting both large scale and small scale infrastructure works. Several are supporting small scale community-based infrastructure, though the need is far from saturated.

The existence of various donor organisations creates the need for cooperation, to prevent overlap and promote a joint approach.

7 Infrastructure Projects

There are four major upgrading projects in Dar es Salaam, which are based on community initiatives. All of these have established a working relationship between the Central Government, City Council, NGOs, CBOs, and Donors. The pilot projects are:

- √ Hanna Nassif pilot project;
- √ Community Infrastructure Programme in Tabata and Kijitonyama;
- √ Buguruni and Vingunguti Project
- √ Healthy City Project (just started).

7.1 Hanna Nassif Pilot Project - 1st Phase (1994-1996)

BACKGROUND

Hanna Nassif is an unplanned settlement located in Kinondoni District 4 km from the Central Business District. It covers 45 ha and has a population of 19,000 people living in 2100 houses.

Before the first phase of the project the area had no proper roads or storm-water drainage channels. During rains, the area floods and the rainwater mixes with uncollected garbage and over-spill from over taxed pit latrines.

The Government had tried to upgrade the area by providing roads and storm water drainage channels in the late 70's and early 80's but the projects were never implemented mainly because they were very ambitious and the Government had no adequate funds. For example, the 1977 upgrading proposal had designed roads of two standards - 6.0m and 12.0m right of way. If the proposal was implemented, it would have resulted in the demolition of 140 houses out of the 998 which were existing at that time³.

The second attempt to upgrade the area (in the early 80's) would have resulted in the demolition of even more houses because of densification which had taken place (see Annex 5).

Thanks to the partnership between the residents of Hanna Nassif (through their CBO), United Nations Agencies (ILO, UNCHS and UN Volunteers), the City Commission and international donors (Ford Foundation, European Development Fund and UNDP) the most flooded area of Hanna Nassif has now been upgraded by using community and labour-based methods.

COMMUNITY BASED APPROACH

A study commissioned by ILO in 1991 had shown that the Hanna Nassif residents were facing a critical problem of flooding during the rainy seasons. They were also willing to contribute in cash and labour to solve the problem.

³ World Bank, 1977: Tanzania: The Second National Sites and Services Project.

The first initiative that ILO took was therefore to assist the residents to organise themselves and register a local CBO. The role of the CBO was to represent the whole Hanna Nassif residents in the planning, implementation and future maintenance of roads and storm water drainage channels, that were to be constructed.

The CBO known as the Community Development Committee (CDC) was formed and registered in 1994 as a Trust. It has 20 elected members, 11 women and 9 men. Leadership positions are shared by both men and women.

LABOUR BASED TECHNOLOGIES (LBT)

In order to generate employment and reduce poverty in Hanna Nassif the project adopted LBT. This was the first recorded experience in the use LBT methods in unplanned settlements in Dar es Salaam. Before hand, LBT methods were being used in rural roads construction and rehabilitation only.

Another innovative feature of the Hanna Nassif project is the use of Community Construction Contracts. These were borrowed from Sri Lanka after a consultant had established that they could be adopted in Hanna Nassif.

Under community contracts, all construction works (roads and drainage) were carried out by the residents themselves under the guidance of a Technical Support Team. The approach not only makes sure that all the investment funds remain in Hanna Nassif but also introduces the residents to skills needed during the maintenance period.

ACHIEVEMENTS

1. As of 31st August, 1996 the following works were completed by the CDC:
 - √ 1.5 km of side drains;
 - √ 1.0 km of murram roads;
 - √ 600 m of main drain.
2. 14,430 worker days of employment were generated, of which 65% were man-days and the rest women days. All together, 511 different people were employed.
3. No houses were demolished during the implementation period, and the Hanna Nassif residents willingly allowed the drains to pass through their plots. This required lower road standards (from the official 12.0 m. to 5.4 m.) and continuous negotiations with house owners.
4. Skills were gained in the construction works, and two women of the CDC were trained in book and store keeping. Some CDC members had the opportunity to visit a similar project in Kampala, Uganda.
5. A legal CDC was established, owning a spacious office which also serves as a Community Information Centre and operating four Bank Accounts one of which is in Foreign Exchange

6. Despite leadership conflicts, the construction of the roads and drainage has made the people more united and confident than before: they had built the drains and roads themselves.
7. The Hanna Nassif upgrading model is being adopted by other CBOs both in planned and unplanned areas. The Community Infrastructure Programme in Tabata and Kijitonyama is a typical example.

LESSONS

1. The constitution of the CDC had some loopholes which resulted in conflicts between the CDC members and Trustees.
2. Information dissemination from CDC members to the rest of the residents was weak. This has affected community contributions and regular maintenance of the built infrastructure;
3. There was no clear understanding of the roles and responsibilities of the Local Government leaders (Ward Officer, Community Development Officers, Ward Health Officers etc.) towards the CDC.

SECOND PHASE OF HANNA NASSIF

The National Income Generation Programme (NIGP) and the Ford Foundation fund the second phase of the project, which started early 1997.

7.2 Community Infrastructure Programme (CIP)

One of the immediate objectives of the Hanna Nassif Pilot Project was "*the capacity of the Dar es Salaam City Council to continue to deal in a responsive, enabling manner to community based upgrading proposals be created and expanded*"⁴. UNCHS (Habitat) was responsible for the achievement of the objective. In order to achieve the objective UNCHS was required to identify and prioritise 10 unplanned settlements in Dar es Salaam where the Hanna Nassif experience could be replicated.

It is in this context that UNCHS (through SDP) commissioned the University College of Lands and Architectural Studies (UCLAS) to prepare a preliminary proposal for the Community Infrastructure Programme (CIP). The selection criteria for the settlements included:

- √ existence of active CBOs
- √ proximity to trunk infrastructure
- √ high degree of consolidation, adequate population density and good topography (not hazardous lands)

From the study, two settlements, Tabata and Kijitonyama were selected to implement the CIP. The World Bank and the Irish Government are providing

⁴ UNDP, 1994: Improving living conditions and expanding employment opportunities in Urban Low Income Communities.

funds for the programme whose estimated costs is US\$ 6.2 million. The programme will improve:

- √ 6 km of spine roads and storm water drainage (bitumen standard);
- √ 9.7km of conventional sewerage system;
- √ 42 km of neighbourhood roads (gravel standard)

Implementation of CIP started in 1995. Mobilisation of the CBOs in the two settlements has reached advanced stages. The Dar es Salaam City Commission has already signed a Memorandum of Understanding (MoU) with the two CBOs in the areas: KIJICO for Kijitonyama and Tabata Development Fund for Tabata.

Both the Kijitonyama and Tabata projects employ community based approaches. They are not, however, explicitly adopting labour based methods in executing the civil works. They plan to use private contractors.

7.3 Buguruni and Vingunguti Project (Plan International)

Plan International has been actively involved in improving the living conditions of two communities in Dar es Salaam, living in the unplanned settlements of Buguruni and Vingunguti with a population of 100,000 people. Plan aims to construct labour-based infrastructure, using labour-based technologies.

Working in partnership with the communities, Plan has provided investment funds and technical assistance to health, education, economic and community development projects. The proposed budget for the Dar es Salaam field office is approximately US\$ 4.4 million for 1996, 1997 and 1998.

7.4 Healthy City Project (HCP)

Dar es Salaam has just started implementing the World Health Organisation (WHO) project known as Healthy City Project. The project aims at improving the environmental and health conditions in food markets and street vending areas, unplanned settlements, and primary schools.

In unplanned settlements, the project will improve:-

- √ street drainage, tree planting, public spaces and sporting facilities;
- √ market places and slaughter houses;
- √ sanitation through community based labour intensive
- √ construction of sewerage and stabilisation ponds;
- √ household water connections and washing stations; and
- √ construction of houses by individual households with support from community development associations, local NGOs and municipal agencies, through the use of local materials and labour based technologies.
- √ solid waste management with low-technology collection systems.

7.5 Conclusions

Various pilot projects aim to upgrade unplanned settlements in Dar es Salaam. However, all are using a somewhat different approach, with the Hanna Nassif Pilot Project being the only one that is labour and community based.

All projects being pilot projects, it is important to share lessons learned. This “networking” is also important to create a sustainable environment, in which all partners (Central Government, City Commission, NGOs and CBOs) know what their role is in the delivery of services, and in the construction and maintenance of public infrastructure. For example: who is going to maintain the drain in Hanna Nassif, and who will pay for maintenance?

Such networking and cooperation is at present organised through the Sustainable Dar es Salaam Project, but requires further attention.

8 Conclusions and recommendations

8.1 Conclusions

Tanzania, and especially Dar es Salaam, face an increasing need to upgrade the ever growing unplanned settlements. The Dar es Salaam City Commission can not provide adequate shelter for the increasing number of urban dwellers, and about 70 per cent of the city population are thus forced to live in largely unserved unplanned settlements.

Labour-based technology and community involvement to upgrade unplanned settlements (as described in section 3) has an immense potential in Tanzania, particularly in Dar es Salaam. With 44 unplanned settlements in Dar es Salaam alone and an increasing number of NGOs and CBOs, the City Commission could justifiably employ labour based technologies and involve NGOs and CBOs, when improving the settlements. Due to high building densities, high unemployment levels and absence of access roads, unplanned settlements are ideal for labour based technologies in settlement upgrading.

The environment in Tanzania seems ripe for such innovative approaches. Many new and supportive policies are finalised or prepared, and the National Programme of Action for Sustainable Income Generation identified infrastructure as one of the sectors with great short and medium term income generation potentials. A study conducted by the Ministry of Works in June 1995 has estimated that labour based methods can generate 75,000 jobs annually in the road sector alone⁵. The study has further shown that labour based road rehabilitation costs US\$ 12,000 per km against US\$ 20,000 to 24,000 by using equipment based technologies.

Dar es Salaam has various strengths to adopt labour and community based approaches to upgrade unplanned settlements:

- √ The Hanna Nassif pilot project illustrates the effectiveness of the approach in Dar es Salaam.
- √ The Ministry of Lands, Housing and Urban Development has been very active in promoting "enabling strategies" for upgrading unplanned settlements, through a new land policy, advanced shelter strategies and action plans.
- √ The Prime Minister's Office (Local Government) through the City Commission and the Sustainable Dar es Salaam Project has equally demonstrated great capacities in working with CBOs and NGOs as partners.
- √ The Ministry of Labour and Youth Development is putting final touches on the new Employment Policy which will incorporate the informal sector. There are several laws which safeguard the rights of workers including casual labourers., though some of the laws are outdated and need to be amended.

⁵ The Guardian, 6th June, 1996

- √ The Ministry of Works has created a Labour Based Unit in the Directorate of Rural Roads and the National Construction Council is training small and medium sized contractors in Labour Based methods in the rehabilitation and construction of rural roads.
- √ There are many CBOs and international NGOs involved in the provision of infrastructure in unplanned settlements. For policy purposes lessons of experience from three CBOs:- Hanna Nassif, CIP and Buguruni/Vingunguti - are worth recording.
- √ Several donors have funded infrastructure projects in unplanned areas, and other donors are likely to join the first group.

On the other hand, to promote labour/ community based approaches, various bottlenecks have to be overcome:

- √ Labour based technology in infrastructure provision in Dar es Salaam is almost unknown, as only the Hanna Nassif project applied LB methods in roads and drainage construction. Moreover, interviews have indicated that labour based methods are associated with "poor quality workmanship" which is not "acceptable" in urban areas.
- √ Although there are many CBOs and national NGOs involved in infrastructure provision in unplanned settlements, their capacities to implement and manage projects are limited. They lack transparency in accounts, trained leadership, working tools, equipment etc.
- √ The sources of revenue for the City Commission are limited. Although revenue collection has greatly improved in the last six months (July to Dec, 1996) additional sources of revenue ought to be sought. Increased revenue will inevitably lead to increased funding of infrastructure projects.
- √ The Dar es Salaam City Commission has various weaknesses (see section 5). Most of the City Commission's senior officials are employed by the Central Government and have been seconded to the Local Government. As such they are answerable to both the Central and Local Government. Moreover, the staff members are not trained in matters specific to Local Government. Additionally; their salaries are low, and they do not have adequate working tools.
- √ Training possibilities for urban labour- and community-based works are insufficient.

8.2 Recommendations

PROMOTION OF LABOUR BASED TECHNOLOGIES

Labour based technologies need to be promoted both at the national and local level. At the national level, the Prime Minister's office (Local Government), Ministry of Works and the Ministry of Labour and Youth Development could jointly organise workshops to publicise labour based methods. Their potentials in employment generation in the urban sector should be clearly identified. Besides the workshops, study tours can be organised to projects and countries

where labour based technology is applied. The workshops and study tours should first aim at sensitising politicians, Government senior staff members and the mass media.

There is furthermore a need to sensitise the Councillors, NGOs and CBOs on the merits of LB methods. Also, specialised short training courses for the City's engineering department will go a long way towards increasing the capacity of the department. Organised study tours and secondment of city Staff members to ongoing labour/ community based projects should also be encouraged.

Training agencies and universities can play an important role in promoting labour and communities based approaches, by adopting these topics in their curricula.

INSTITUTIONAL STRENGTHENING

Equally important as promoting labour-based technologies is the strengthening of the Labour Based Unit in the Ministry of Works in terms of additional qualified personnel. The National Construction Council should be encouraged to evaluate the quality of civil works constructed through labour based methods and their cost effectiveness in urban and rural settings.

The City Commission has shown great efforts in working with NGOs and CBOs. These efforts, however, have not been understood at the ward level. Some of the problems that the Hanna Nassif project is facing (cleaning and maintenance of the drains) could have been reduced had there been a clear understanding of the different roles of the ward leadership and the Community Development Committee (CDC). The recent move by the City Commission to employ graduates as Ward Executive Officers is highly appreciated.

The Commission is encouraged to select and offer specialised training to its existing motivated staff. New qualified staff should be employed whenever necessary. These initiatives should be accompanied by better pay, improved career perspectives, working conditions etc.

The Commission, through the Sustainable Dar es Salaam Project, is further encouraged to create a system that enables all pilot projects to be sustainable. This entails clarifying which partner is responsible for what, and allowing CBOs to collect money to construct and maintain infrastructure. For example: the CBO in Hanna Nassif may be responsible for routine maintenance of the drain, while the City Commission is responsible for periodic maintenance. The Hanna Nassif CDC recently started collecting a road toll to fund their maintenance activities. Such arrangements must be reflected in the budget of the City Commission and the CBO.

NGOs and CBOs have great potentials in improving the living conditions of their settlements. The City should encourage active partnership with these organisations and co-ordinate their activities. NGOs and CBOs, in their turn, have to look for partnerships as well, and should aim to have adequate institutional capacity to assist in implementing labour/ community based upgrading of unplanned settlements.

THE ROLE OF THE DONOR COMMUNITY

Through "Seeing is Believing" national and international donors have a role to play in the promotion of labour-based technologies in urban unplanned settlements. In their programmes they should allocate funds for pilot projects which are employment intensive and community based.

Donors furthermore have a role to play in assisting the various partners to adjust to innovative approaches. The Government, City Commission, NGOs, CBOs and private sector all have a role to play in upgrading unplanned settlements, but require assistance in obtaining the new skills, knowledge, and attitudes.

THE ROLES OF ILO AND UNCHS

ILO has 25 years of experience in labour based technologies mostly from the rural areas. This needs to be translated into urban areas. UNCHS, on the other hand, has extensive knowledge in the planning of human settlements. Joint efforts by the two UN Agencies can greatly improve on what is already existing. For a start, the Agencies can backstop the forthcoming two urban projects: the Second phase of the Hanna Nassif Project and the Healthy Cities Project.

Right from the commencement of each project, the two Agencies could provide in-house training to the project personnel in their areas of specialisation. For instance, ILO could offer training in labour-based technologies, type of data to be collected during the execution of the civil works, community contracting, task rates etc. UNCHS on the other hand, could deal with planning issues, local government participation, community by-laws etc.

The Agencies are also encouraged to initiate dialogue with the Central and Local Government, Community Infrastructure Programme, and Plan International. The dialogue with CIP could focus on how best the programme can adopt LB methods in the tertiary roads while the exchange with PLAN will go a long way towards enriching each others experiences in the aspects of employment generation, solid waste management and community mobilisation.

Annex A: Labour- and community-based approaches

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The Annex will look in more detail into appropriate standards for urban infrastructure, it will define labour based technology and community participation, and it will provide examples of labour- and community-based urban upgrading of unplanned settlements.

I. Standards of urban infrastructure

MAJOR AND MINOR WORKS

Construction and maintenance of infrastructure can be grouped as major and minor works. Major and minor works are here defined on the basis of technological complexity of the work, and not on the basis of the financial cost, or amount of work.

Major works are those works that require more engineering support and more machines, which are often not locally available. Minor works require less

engineering and can (easily) be done by labour-based technologies. Though the distinction between major and minor is open for discussion, the attached box provides some basic guidelines.

In general, minor works are more appropriate for labour/ community based approaches, while major works may be too difficult. For example: while small bridges can be constructed with labour-based technologies, this is not feasible for larger bridges (more than 6 metres; Sseketawa, 1996, p.8, 14). And while small drains can be built with minimal engineering advice and supervision, large storm water drains need more careful designing and supervision. This may be too difficult for communities.

Minor and major works: types of activity	
<u>Major works</u>	<u>Minor works</u>
Main roads	Gravel and earth roads/ footpaths
Storm drains	Lateral drains
Water supply	Water points and kiosks
Sanitation (sewerage)	On-site sanitation
Waste management	Primary collection and treatment of solid waste
Electricity supply	Trenching for cabling
<i>Housing development:</i>	
New estates	Individual house improvements
Sites and services	Site clearance
<i>Source: ILO, 1993, p. 13</i>	

However, the question of when labour/ community based approaches can technically be used, can not be answered that easily. Large storm water drains (major works), for example, can be built by labour-based methods and constructed by communities themselves, with engineering assistance. Segments of major works can also be done by labour-based methods, such as the excavation of side drains of major roads.

APPROPRIATE STANDARDS

Standards for infrastructure are often set at a level which is not appropriate for urban unplanned settlements. Rural roads, for example, are generally much wider than roads in highly congested urban unplanned settlements can be. Standards thus need to be adjusted to the urban environment. Minimum standards need to be carefully considered to prevent dangerous situations (such as collapsing houses).

Some of the major adjustments of the standards for roads, drainage and pit latrines are as follows:

Roads: the road width often has to be smaller in urban than rural areas. In unplanned settlements the actual road width tends to depend on the distance between houses. An adjusted minimum width standard should prevent demolition of these houses wherever possible. Innovative designs have been developed to suit the urban environment: roads have been designed with only a drain on one side to gain space, or with a drain in the middle. In the city of Indore, India, roads are even used as storm water drains themselves!

Another difference between rural and urban roads is the number of road crossings: urban roads have much more road crossings, where culverts or drifts have to be constructed for the side drains. Furthermore, foot bridges need to be constructed for pedestrians to cross the side drains. This increases costs and construction time.

Lastly, road side drains often need to be lined and constructed with concrete, adding significantly to the cost (see drains).

Drains: For drains, the changes in the standards are even more drastic than for roads. Mitre or turn out drains are generally not feasible, and the storm water drains thus have to carry all the water out of the area. Many unplanned settlements are in low lying areas, which increases the need for large drains. Careful designs are thus essential.

Other issues to consider while constructing a drain have been learned from various pilot projects:

There are many obstacles in the ground, such as cables and waterpipes, which delay construction. Pit latrines and solid waste may mean having to stabilise the ground first.

Continuous adjustments to the design are needed, to prevent demolition of houses, pit latrines, or other structures, and to cope with unexpected problems (such as obstacles in the ground, or resistance to construction for cultural or religious reasons).

Solid waste should ideally be managed, to prevent the drains being filled up with waste.

Pit latrines: Urban pit latrines need to be emptied, since there is not enough space to dig another latrine when the first is full. This requires “Pit Latrine Emptiers” that can access congested areas. These emptiers have been developed, and new designs for pit-latrines have been developed to ease emptying.

Similar changes in standards apply to sanitation and water supply systems.

II. Labour-based technologies

A DEFINITION: COST-EFFECTIVENESS AND QUALITY

Public infrastructure is often constructed and maintained adopting machine based approaches, without considering technological options. However, with relatively low wage levels in many developing countries, labour-based technologies are often more cost-effective for minor works, and deliver the quality standard of infrastructure. A definition can be based on these characteristics:

Rural Roads in Lesotho and Zimbabwe

- In Lesotho, labour-based road construction can potentially create 8,271 full time jobs. In Zimbabwe 75,000.
- Labour-based methods are about 37% cheaper than machine based methods in Lesotho, and a marginal 4% in Zimbabwe (where minimum wage levels are set far above market levels).
- Valuing employment creation at "shadow cost pricing", economic costs of labour-based methods are respectively 50% and 79% lower than machine based approaches in Lesotho and Zimbabwe.

Source: Maria Lennartson and David Stiedl, 1995

*"Labour-based technology is the most cost-effective mix of labour and (light) equipment, that can construct or maintain infrastructure to the required standard"*⁶.

The definition indicates that the optimum mix of labour and equipment differs from country to country, depending on the actual costs and availability of labour and equipment. This requires research and pilot projects, which the ILO has undertaken in various countries.

A known example in Sub Saharan Africa is the construction and maintenance of rural access roads, where labour-based technologies are to an increasing extent replacing machine based methods. A recent study in Zimbabwe and Lesotho, for example, concluded that in both countries labour-based technologies are cheaper than machine based methods, while full adoption of labour-based methods would create as much as 18% of the formal sector employment in Lesotho, and 6.6% in Zimbabwe (see box).

For urban infrastructure works, the cost effectiveness of labour-based approaches is less known. However, section 3.5 provides various examples indicating considerable benefits.

LOCAL RESOURCES

Labour-based technology is sometimes referred to as the "effective use of local resources", since not only local labour is used, but other local resources as well. This includes local materials, the private sector, community organisation, and government capacities (John Ssekatawa et al, 1996, p.8).

In Uganda, for example, local binders provide cheap alternatives for the mainly imported cement (W. Balu-Tabaaro et al, 1995). Using local binders thus provide considerable cost-savings in scarce foreign exchange, and strengthening of the local private sector.

⁶ The definition is an edited version of a definition of Joshua Nyoni et al (1995, p.iii).

ADVANTAGES OF LABOUR-BASED TECHNOLOGIES

Advantages are:

Cost savings, and especially savings in scarce foreign exchange.

Local employment generation and poverty alleviation. Labour-based works are self targeted towards the poorest members of society, since most created employment is casual, requires low skills, and is lowly paid (ILO, 1993, p.2).

Local economic growth. Materials are locally manufactured, creating local employment and economic growth (backward linkage), and better infrastructure and temporary local employment will boost the local economy (forward linkages).

Sustainability and local maintenance. By using local resources, labour, and organisation, an environment has been created for sustainable maintenance.

These advantages make labour-based technologies appropriate for the construction and maintenance of minor works in urban unplanned settlements.

III. Community management and participation

TOWARDS COMMUNITY MANAGEMENT

Communities may be involved in the planning, management, implementation and maintenance of public infrastructure. Involvement in planning and management is important to facilitate that the public works address priority needs of the local population.

Community participation in construction and maintenance of public infrastructure is important to maximise the use of local labour and resources, and to allow local management. For example: the construction of an urban drain may result in the demolition of houses, and the need to develop alternative shelter. This needs to be discussed with the inhabitants.

How to involve the community, however, is open for discussion. Communities may only participate in the planning, construction and maintenance of public infrastructure, or may fully manage any or all of these activities. Of the two, community management has the significant advantage that it promotes the feeling of local ownership, which is an important motivator for local maintenance.

Under a community management system, the community may either decide to construct and maintain infrastructure itself, or may subcontract construction to a private contractor. Local fund raising then becomes one of the issues to promote sustainability of the management system and the created infrastructure.

Three important lessons can be drawn from the experience in community management:

1. Community management requires commitment from the community, which is most likely if the community directly benefits from the activity. For example:

construction and maintenance of a road within the boundary of the community specifically benefits the community, while many people benefit from a road connecting two villages. The community will thus not be very committed to construct and maintain the road between the two villages, since it is not “their road”, while they would construct and maintain “their road” within their boundary.

2. Facilitating community management is likely to take more time in an urban than in a rural setting. The reason is that urban communities tend to be less cohesive than in rural areas, and community organisation thus takes more time. On the other hand, there are often many NGOs and CBOs to assist in the construction and maintenance of upgrading activities.
3. In an urban environment, voluntary labour is less acceptable than in rural areas, since people need income to survive. In rural areas people tend to have other means of survival (often in agriculture).

COMMUNITY CONTRACTING

A community contract is an agreement between a Community Based Organisation (CBO) and an external support agency (government, local authority, NGO, donor agency) to carry out any development activity for the benefit of the community (Jane Tournee and Wilma van Esch, 1997). A community contract can be used to employ a CBO to construct and maintain public infrastructure⁷.

To organise construction, the roles of central and local government, Community Based Organisations (CBOs), and NGOs in funding and construction needs to be clear. Community contracts are a mechanism to create such rules for construction and to clarify the roles of the partners involved. A contract needs to be signed with a legal representative of the community as the contractor, called a CBO, and the external support agency (government, city council, NGO, or donor agency) as the client. The contract describes the work to be carried out by the CBO, and the funding and assistance provided by the external agency. The community may construct or maintain a drain, sanitation facilities, or a hospital, or may perform any other kind of developmental work.

Community contracts can vary in their terms and application. A contract can allow the CBO to organise only the labour-component of the works, or can allow the CBO to organise both labour and materials. Some contracts even allow for the inclusion of a small profit, which may be used for maintenance. Also, maintenance contracts may be performed by the CBO without any assistance, while more difficult works will require external assistance from engineers and community mobilisers (Jane Tournee and Wilma van Esch, 1997).

Community contracts adopt, by definition, labour-based technologies, since the CBO should be able to implement the work itself. Labour-based work can

⁷ The CBO is thus the contractor. The CBO may also be the client, if they employ a private contractor to construct or maintain infrastructure for them. This involves a normal commercial contract.

relatively easily be managed locally, using local resources and labour. Routine maintenance can then be taken over by the community, through the acquired skills.

Experiences from Sri Lanka, Tanzania, and other countries indicate that community-based construction through community contracts can be a cost-effective method to provide infrastructure of a required standard (Jane Tournée and Wilma van Esch, 1997; ILO, 1993; UNCHS, 1994a; ISS, 1996).

ADVANTAGES OF COMMUNITY CONTRACTING

Advantages of community contracts are (Jane Tournée and Wilma van Esch, 1997, 1997):

- Community initiatives are recognised and supported.
- Community organisation can be strengthened and self esteem and a feeling of ownership for the created assets increased.
- Funds, skills and knowledge are retained in the hands of the community, which can ease maintenance.
- It generates employment in the local community, and provides an opportunity for job training.
- The CBO is answerable to the people they represent and must demonstrate openness in all their dealings.
- Unplanned settlements are very congested. Community implementation allows continuous negotiations with all householders, which can prevent demolition of houses, delays due to disagreements, and can reduce compensation to be paid.

These advantages make community contracting very attractive for the construction and maintenance of infrastructure in urban unplanned settlements.

IV. Case studies

Experience in various countries indicate that the potential for labour and community based approaches in urban unplanned settlements is huge. This section aims to describe practices to give an idea of the possibilities.

COMMUNITY CONTRACTING IN SRI LANKA

The system of community contracting was first piloted in Sri Lanka in 1986, by the National Housing Development Authority (NHDA), with the assistance of UNCHS.

When a community decides it wants to establish a development programme, NHDA organises a two-day workshop to set up the programme and to agree upon an implementation schedule. This is possibly followed by half-day workshops, to plan more difficult and specific issues. In the next step, the CDC is established and legalised.

When a construction programme has been agreed upon, the NHDA establishes a community contract with the Community Development Committee (CDC), under certain conditions. The CDC will be given funds for construction and a small profit, comparable to the costing of commercial contracts. The CDC can then decide how to implement the works, but usually uses local labour and labour-based technologies.

In the period from January 1986 to December 1988, a total of 83 community construction contracts was awarded to 70 different CDCs. After 1988, the number of contracts reduced, due to organisational and legal problems, combined with financial problems in NHDA. However, the development of community agents (praja sahayakas) in 1989 as extension agents helped to sustain the process, and the methodology is now generally accepted (ILO, 1993, p.49-54; UNCHS, 1994)

STORM WATER DRAINAGE IN KALERWE, UGANDA

Kalerwe is an unplanned settlement in Kampala, which suffers from severe flooding. In 1993/94, the ILO and UNDP established a project to assist the community to construct drains. Community contracts were established with a CBO for labour-based construction, in which the CBO would manage all labour. Within one year, an extremely short time-span, the community constructed 2.3 km of main drain, 1.4 km of secondary drain, and 1.4 km of tertiary drain. They received technical training, and a number of trained staff left to work for other projects.

The project was technically very successful and created a lot of local employment (17,720 workdays paid; and 4,400 workdays unpaid). However, maintenance proved a problem, due to unclear arrangements between Kampala City Council and the CBO (Luzira, 1995).

PROJECT OF URBAN SELF HELP (PUSH), LUSAKA, ZAMBIA

Zambia has the highest urbanisation level in Africa — 50 per cent —, and faces high unemployment and poverty. The Government of Zambia noted the problem, and asked the World Food Programme (WFP) to assist to implement a food-for-work project. In a study, they identified flooding, sanitation, and solid waste as the main problems in unplanned settlements.

The pilot project aimed to create employment for 3,000 workers. The ILO was asked to provide training on the labour-based construction of drains and roads, and to adapt the designs of rural roads and drains to the urban environment of Lusaka.

Construction targets were set on the basis of rural road construction. This however proved too high for various reasons:

- Solid waste needed to be removed before construction could start.
- The number of vehicle crossings was more than double the number in rural areas, and thus more culverts and drifts needed to be installed. This took considerable time and money.

- Bigger drains were required for the storm water, since mitre (turn out) drains could not be used.
- The target group, the poorest of the poorest, often lacked construction skills and required considerable training. This increased costs and lowered labour productivity.

ROAD IMPROVEMENT BY AN NGO IN NAIROBI

In Kawangware, an unplanned settlement in Nairobi, an NGO rehabilitated a road of 400 metre from the main road to the Kabiro Youth Polytechnic. Rehabilitation was organised through a community based organisation, which also took responsibility for maintenance. An engineer oversaw the rehabilitation for a period of 6 weeks, using local labour and equipment.

The project differed from other projects, in that an existing NGO was assisted for a specific activity, and no time needed to be spent on community mobilisation.

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