

**COMMUNITY MANAGED LABOUR BASED WORKS**  
**PAPER PREPARED FOR THE INTERNATIONAL COURSE**  
**FOR LABOUR BASED ROAD ENGINEERS**

**IHE DELFT**

**Compiled by Wilma van Esch**

**ILO ASIST Nairobi**

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## Foreword

The ILO promotes employment-intensive policies in infrastructure development, in order to generate employment and alleviate poverty. The experience extends to urban and rural works in the construction and maintenance of roads, paths, tracks, irrigation systems, water supply schemes, sanitation systems, and solid waste management. Participation by communities and the private sector has been actively promoted.

In order to respond more effectively to the increasing demand from countries wishing to introduce labour-based approaches to the construction of infrastructure construction and maintenance, a technical backstopping service was established in 1990 under the project named ASIST (Advisory Support, Information Services and Training). The first phase of ASIST concentrated mainly on rural roads, but the project's scope, now in its third phase, has been widened to include rural transport and employment-intensive and community based approaches to urban infrastructure upgrading.

The first sections of the paper deals with the most recent trends in employment intensive works as discussed during the Regional Seminar for Labour-Based Practitioners in Lusaka (May 1999). The second part of the paper will discuss issues related to the urban labour-based community-managed infrastructure upgrading in urban areas and the use of community contracts with special reference to the experiences in the Hanna Nassif settlement upgrading project in Tanzania.

The responsibility for the opinion expressed in this presentation rests solely with the author and does not constitute an endorsement by the ILO.

# 1. Trends in Employment-Intensive Programmes<sup>1</sup>

The terms employment-intensive works and labour-based works are generally used as synonyms. However it is important to distinguish between an optimum and maximum use of labour. The ILO emphasises the sustainability of labour-based or employment-intensive approaches by optimising the use of labour, and ensuring that employment-intensive programmes do not degenerate into “make-work” approaches where cost effectiveness and quality aspects are ignored. We therefore see as purpose to promote cost-effective and sound engineering labour-based methods, whilst generating employment opportunities and minimising the foreign capital drain implicit in the use of equipment-intensive methods.

In order to have a substantial impact on the social and economic development for a majority of people in a country, it is clear that infrastructure investments must not be a goal in itself. It is the provision of social and economic services that make people take advantage of the investments. The infrastructure is thus only a facilitator in providing the priority services for people in need. The emphasis on social (health, education, etc.) as much as on economic (roads, markets, etc.) infrastructure is clear, and reflects the fact that for instance good health and education are prerequisites for a development path out of poverty. Therefore the respect for local initiatives and priorities should be at the forefront of any development programme.

## 1.1 COMMUNITY PARTICIPATION, LOCAL AUTHORITIES AND DECENTRALISATION

Greater emphasis has recently been given to “community participation” in development strategies. The focus has highlighted the fact that development programmes are unlikely to succeed if the intended beneficiaries are not involved in the entire process. This entails that people must be involved not only in the implementation of projects (like as casual labourers), but throughout the process from identification to operation, maintenance and evaluation.

The present shift in policy towards decentralisation has placed greater responsibility for development on local authorities, local organisations and local people themselves. Much of the development efforts at local level will go through newly established or strengthened local authorities or agencies and community based organisations. A new era for community participation and stakeholder involvement has therefore been created.

But there is also danger lurking backstage. With dwindling resources for development and increasing demands from the (increasingly urbanised) population,

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<sup>1</sup> Source: Summary of paper presented by Terje Tessem (ASIST Programme Director) during the Regional Seminar for Labour-based Practitioners in Lusaka, May 1999.

many a government has resorted to this option to avoid responsibility. However, giving responsibility for social and economic infrastructure to the local community is not a solution to the lack of funding within the society at large. While funding is not increasing, inappropriate planning, underestimated resource needs and over-committed local communities are the order of the day in many situations.

The trend to assume that communities should provide labour without payment, should be carefully considered. Although communities can be requested to volunteer labour in the case of community infrastructure whereby the workers have a direct benefit from the improved services, we should be careful not to overburden the poorest communities.

## **1.2 IMPLICATIONS**

The obvious result of these shifts in development strategies and investments will be that more capacities are needed at local level to plan, implement and maintain infrastructure. This implies that capacity to carry out labour-based works should be created at local authority level, NGOs and community based organisations.

As poverty alleviation and employment generation form important parts of development agencies' programmes, there is now a likelihood of greater local involvement. This should increase the potential for labour-based contracting and further support to the development of small-scale local construction contractors should be given.

Therefore, ILO ASIST as many other partners are more and more supporting programmes where local stakeholders are fully involved, such as rural accessibility and urban infrastructure programmes. In this paper a short overview will be presented of experiences related to rural transport and rural roads and last but not least urban infrastructure upgrading.

## **1.3 RURAL ACCESSIBILITY**

Access should be defined as (from the Oxford dictionary): "right or opportunity to reach or use or visit". The accessibility problems can only be identified at local level with a full involvement of the communities, and they should include basic, social and economic sectors like health, education, grinding mills, energy (wood lots) water, markets etc. Accessibility improvements may therefore include infrastructure investments, both motorised and non-motorised means of transport, and location of services. In other words, solutions could entail investments in roads, tracks, paths, bridges, etc. (access created by transport infrastructure provision), provision of bus services and donkey carts, water barrows, etc. (access by means of transport), or through the planning of health centres, schools, etc. (access by location of services).

To address the identification of poor access, the Integrated Rural Accessibility Planning (IRAP) tool has been developed. It involves a partnership between local communities and authorities in identifying access problems, prioritising the most urgent access needs and implementing activities.

It should be noted that this planning methodology and the interest pursued by development agencies does mean that there should be a shift from the focus on infrastructure development to a focus on the provision of services. This does not necessarily mean that the infrastructure work itself will, or should, be given less importance, but rather that the infrastructure's importance in terms of providing the prioritised (transport) services must be highlighted. It is the ability to improve access that must be at the forefront if poverty is to be reduced.

## **1.4 RURAL ROADS AND INFRASTRUCTURE**

Employment-intensive approaches to the building and maintenance of rural roads have been "normal" for some time now. For example the Rural Access and Minor Roads Programmes in Kenya has constructed and are maintaining (to different degrees) a network of more than 11,000 kilometres, the distance from Cape Town to Cairo. It must be noted that this high quality work has been achieved with cost efficient force account operations. Kenya, albeit late, has joined other countries in Africa in their drive to increase the private sector involvement in their programme. More than 18 African countries are now working with small-scale indigenous contractor development programmes with a focus on the application of appropriate technology. Most of these programmes deal with the road sector. There are also serious efforts made to work with other rural infrastructure investments like irrigation, water supply, soil conservation, forestry etc.

It should be mentioned here that the ILO has produced a guide for the "Employment-Intensive Infrastructure Programmes: Capacity Building for Contracting in the Construction Sector", which covers operational issues of contracting development programmes and is based on a good number of global experiences in labour-based contracting.

Another guide which recently came out emphasises that improved labour practices and working conditions will have a positive impact on the productivity rates and the long-term viability of labour-based operations (Labour Policies and Practices Guide). We are now in the process of making this guide widely available and promoting it with partners in a number of countries. We would eventually like to see that it is contributing to the development of appropriate policies for the growth of employment-intensive programmes beyond present levels. It should also contribute to a process where labour laws and regulations are being adjusted to allow for and promote the efficient use of labour-based technology.

## **1.5 URBAN UPGRADING: THE NEED FOR A NEW APPROACH**

In many cities across Africa, the majority of residents live in rapidly growing low income settlements without access to even the most rudimentary physical infrastructure in terms of water supply, sanitation, roads, drainage and in some cases even shelter. For example in Dar es Salaam, Nairobi and Lusaka approximately 70% of the city residents live in unplanned or illegal settlements.

City or town councils have typically neglected these settlements in the past as they were expected to disappear over time when cities grew to accommodate more migrants and due to lack of resources. In some cases Governments did make

attempts to address this problem by building new settlements and demolishing old ones. However, even when suitable sites have been found the infrastructure has often fallen into disrepair and project benefits have rarely reached the intended beneficiaries.

Many Governments and agencies are now interested in supporting the development in such low-income areas to reduce the access problems and health and environmental risks they carry. Future efforts should be directed at the development of effective partnerships between City Councils and community organisations whether they be in planned or unplanned settlements.

The low-income areas are also characterised by high un- and under-employment. Self-employment exists to a certain degree, but poor infrastructure endangers working conditions and hampers access to markets.

### **Rural Experience and Urban Focus**

The work in the urban sector may seem to be very different from the work in the rural areas and in particular in the rural roads area. However, much of the same principles applied to rural road programmes and in particular rural infrastructure works are being applied for activities in the urban work. Our focus is on low income areas, mainly unplanned or informal settlements.

Constraints to access in many unplanned settlement areas, combined with a natural reluctance on the part of residents to carry out non-essential demolitions, lends itself to the use of labour-based methods of working. The satisfactory use of labour-based methods relies on suitable designs and working methods, and is not simply a case of substituting workers for machines.

Often, existing rules and regulations specify standards of buildings, building materials, and infrastructure that are unaffordable by the urban poor. In addition a conservative approach to working methods and technology choice means that the opportunity to optimise employment creation is lost, both in the formal and informal sectors. It has been recognised by many governments, as reflected in policy statements, that the use of labour-based methods is desirable in the pursuit of increasing employment opportunities.

The main feature of these programmes is that they do not focus on the labour-based approach only, but entail community management whereby partnership arrangements between authorities and communities (their representatives) are developed. This development may in some cases include the strengthening of already established relationships, but it will most likely involve the establishment of new processes or entire new partnerships. The formalisation of such a partnership is crucial for the success of any development involving the community and their resources in the development of the settlement. Community contracting is an important tool in formalising such a partnership.

Community-managed urban upgrading relies heavily on strong community participation, which will result in the representative community body being in a position to initiate discussions and make decisions about what projects should be undertaken. The community could also control the financing of the works, be

responsible for organising community contributions, where applicable, and the disbursement of funds. For construction projects they might also decide on how the asset will be designed and constructed, who should work on the construction, levels of pay, and what type and amount of assistance they need to meet their targets and satisfy the community members.

If improvements are to be in the hands of communities, there is a need for support to their representative bodies, and this is especially important in the initial stages.

### **Community Contracting**

Community contracting was initially mostly seen as a tool of engaging people from the community in the implementation of the works, and mostly in terms of providing paid or unpaid labour. Furthermore, it is acknowledged that community contracting also was used to contract out infrastructure work in difficult and sometimes hazardous environments. However, community contracting now takes the form of an involvement of the stakeholders from the very beginning of a project throughout the process.

Experience from Asia, has shown that small viable contractors can develop out of some of these community contracts if the political and economic environment is favourable. The urban infrastructure sector can provide substantial work in both construction and maintenance for small-scale contractors.

Experience has now been gained with urban works in a number of African countries. This involves both unpaid labour, like in the self-help operations and food for work activities in Zambia under the PUSH programme, and paid labour as in the urban project in Dar es Salaam and Kampala. It is important to distinguish between public works, whereby workers should be paid a minimum wage, and community works that are in the direct interest of the workers and wherefore a payment lower than minimum wage could be justifiable. In an urban setting, whereby people entirely rely on cash payment for their work, this may be even more difficult than in the rural setting where people can at least cultivate part of their food. The result may have a serious impact on people's possible contribution during the construction period, but most on the operation and maintenance of the infrastructure. The community contracting methodology aims at clarifying such roles and creating partnerships.

Another aspect of community contracting is that one tries to clarify with the partners the needs of a technically and economically sound development of the area. Experiences with many a socially motivated programme have shown that the technical aspects have not been taken seriously enough, and insurmountable problems have emerged following the low-key investments. Whereas the investment must be affordable for the partners, they must be built on the principles of good quality and cost effectiveness. Supporting agencies have an obligation to educate the partners about these technical and economic principles through the development process even if the development is in the hands of the community.

## **Integrated Approach and Activities**

Especially in the urban sector it is important to integrate ones activities with other activities and sectors. This includes the already discussed area of community organisation and contracting, but much more on the areas of solid waste management and micro enterprise development.

Any investment in storm-water drainage or access through roads, tracks and paths is not going to be sustainable unless the maintenance problem is solved. In urban areas, the problem with solid waste clogging up the drains may be too much to bear for any organisation, be it a community or a public organisation. Experience has shown that tackling the solid waste is a must for any urban upgrading programme. The linkage to the formation of small enterprises to take advantage of the potential in haulage and disposal, but also income generation from the recycling, is thus an area of great concern for such programmes.

## **The Work of ASIST**

During the last five years, the ILO has carried out urban sector pilot projects in Uganda, Kenya and Tanzania, in cooperation with various other partners (City Councils, Community based Organisations and donors such as UNDP, Ford Foundation, EDF and UNCHS). In addition ILO ASIST has just formulated a project to upgrade a low-income area in Nairobi (former site and service scheme) and 3 low-income areas (unplanned) in Lusaka. Currently a project formulation is taking place in Lesotho for urban infrastructure upgrading of Maseru.

The focus of ASIST's work in the urban sector is now to develop sufficient and much needed documentation of the experiences and training material for agencies wanting to use these approaches. The training material will be mainly for technical staff (engineers, technicians and foremen) of urban councils, NGOs and the private sector who will need awareness raising. It does entail training on labour-based approaches, but at the same time, it will entail a change to the mentality, the way one approaches and carries through projects with urban communities wishing an upgrading and a regularisation of their community. Hopefully this year the first engineers course will take place in Tanzania.

## **2. Hanna Nassif infrastructure improvement**

This section discusses the major issues concerning labour-based community based urban infrastructure upgrading with examples from Hanna Nassif regarding planning and design, implementation and maintenance.

### **2.1 BACKGROUND INFORMATION HANNA NASSIF, TANZANIA**

Hanna Nassif unplanned settlement is located in Kinondoni District approximately 4 km from Dar es Salaam city centre. In 1994 the settlement had a population of approximately 19.000 people. The Hanna Nassif community tried for several years to interest the government in upgrading the settlement. The first priority was to reduce the flooding of the area by constructing storm water drainage. Several plans

were developed but all of them failed due to lack of funds and the need to demolish many houses. In the early nineties a pilot project was formulated by the ILO based on high community involvement in all stages of the construction process and the use of labour based methods. In 1993 a Community Development Committee (CDC) was formed. The Hanna Nassif Community-Based Upgrading Project phase I (UNDP, Ford Foundation, ILO, UNCHS, UNV) started works in March 1994 and finished in August 1996. A total of 600 metres of main storm water drains, 1500 metres of side drain and 1000 metres of gravel road have been constructed, plus two protected drainage outlets, improved footpaths, and 10 vehicular culverts. All works were implemented through community contracts. The second phase of the project (started end 1997, NIGP, UCLAS, Ford Foundation, ILO) extends the works to a much larger area within Hanna Nassif unplanned settlement and includes solid waste management, drinking water supply and credit schemes. Hanna Nassif phase II also intends to further improve the labour and community-based approach and to partly contract out work to labour-based contractors.

In the Hanna Nassif project a labour and community based approach has been chosen to carry out the construction works. The main objectives of the project are to combine infrastructure upgrading activities in low-income areas with employment creation, skills upgrading and community capacity building. The Hanna Nassif project was based on these priorities and was formulated in close collaboration with the community, City Council and ILO. The basic new concept of the project was to empower the community to create and develop it's own infrastructure with assistance from City Council and a technical assistance team. The idea was to launch a pilot project and use the experience in other similar programmes.

The major achievements at the end of phase I are:

- improved living conditions through improved drainage and access
- 14,500 worker days on employment created
- stronger community organisation which has taken further initiatives in phase II to include drinking water supply, credit and solid waste management.
- maintenance has been carried out by the community through road toll collection<sup>2</sup>

## **2.2 PLANNING AND DESIGN**

### **Participatory planning and design**

In a participatory planning and design process the community plays a major role in defining what type of infrastructure is needed. The planner and designer have to work with the community in a participatory way by showing the trade-offs involved in every situation. There are for example different design choices and a balance has to be made between the most optimal construction and the available funds.

In Hanna Nassif an important consideration during the design was the choice between open or covered storm water drains. Open drains are cheaper and easier to

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<sup>2</sup> the road toll collection has temporary stopped due to elections of a community development committee.

construct and to maintain but are a possible hazard for pedestrians, especially children. The system's design will therefore have to strike a balance between what the community is able and willing to do on the one hand and what it can afford on the other hand. Another example is the planning and design of a drinking water system. The location and number of water kiosks is a trade off between issues such as available land, available funds, future possible water fee and water needs of the households. During the planning and design phase, operation and maintenance responsibilities for the water kiosks was a much discussed issue and partly determined the design.

In design meetings with the community representatives the possible technical options were discussed and agreed. The main task of the technical specialist was to design the construction works and to present the different options and cost consequences to the community.

### **Labour-based and community-based design**

It is often supposed that the use of intermediate technology and in particular labour-based methods of construction will reduce the need for precise design work. In fact this is not at all the case. The techniques used during construction may be kept as simple as possible, but the accuracy and appropriateness of the design demands close attention to detail. In Hanna Nassif technical guidance is provided by City Council staff, the private sector (COWI Consult) and supporting agencies (UCLAS, ILO).

For most service provision, be it water distribution, drainage, access roads, footpaths, sewerage, etc., a clear route through the settlement for the service must be found. The clear distance between existing buildings, the position of existing facilities, and the minimising of demolition<sup>3</sup> will play an important part in forming the design brief. In Hanna Nassif no houses have been demolished and the location of the storm water drainage, roads and location of water kiosks have been continually discussed (and adjusted) with the community.

In Hanna Nassif there was a need for a thorough topographic survey of the area to be upgraded, including accurate levels. This survey is invaluable to make the correct design choice for infrastructure improvements especially drainage.

The designs need to be flexible as continuous adjustments are needed, to prevent demolition of houses, pit latrines, or other structures, and to cope with unexpected problems. In Hanna Nassif there were many obstacles in the ground, such as cables, water pipes and buried solid waste, which sometimes resulted in adjustments in the design.

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<sup>3</sup> Demolition leads to problems of compensation and relocation. Investment made in the buildings to be demolished, even quite modest levels of investment, are an asset and as such should be preserved if possible. In many unplanned settlements people wish to remain in the area and would prefer an adapted standard of service to the option of demolition.

## **2.3 APPROPRIATE STANDARDS**

General building standards are often inappropriate and unaffordable in unplanned settlements. Therefore mutual agreement is necessary with regard to expected quality of goods produced. An adapted set of guidelines (with carefully considered minimum standards) should indicate the expected quality instead of conventional building codes.

For example in Hanna Nassif the roads have been upgraded to gravel roads with in some sections a standard width of only 3.5 meters to prevent demolition of houses. The council construction standards for 'regular' urban roads are of course much higher.

A possible barrier to the upgrading of unplanned settlements can be the prevailing regulations of the municipal authority or planning ministry. The creation (and publication) of appropriate standards for community infrastructure improvement will allow authorities to support requests from communities for assistance in improving their living conditions.

## **2.4 CONSTRUCTION**

Broadly speaking two categories of questions need to be considered before the decision is taken to involve the community in the implementation of the work:

1. What role or combinations of roles are appropriate for community groups.
2. What kind of work is suitable for community construction.

It is noteworthy that in reaching the decision regarding the roles and the kinds of work that a community can undertake, the community should be given the chance to participate in the decision process.

### **Roles the community can play**

The roles the community or community groups can play, include:

- As workers on the site. The technology choice should benefit many workers to take advantage. Whether the community is client or contractor, the unskilled workers can be drawn from the community. In a beneficiary setting the workers will be able to work under proper working conditions and be trained.
- As client representative or client. This implies that the community can be involved in providing the contracts and ensures that the created assets or services meet the demand of the community.
- As contractors. Representatives of the community can act as contractor and the profit will go to the community bank account to finance other interventions or maintenance of the created assets. It is also possible to contract out the work to economic groups in the community, promoting the local private sector capacity.
- As partner in the entire process. The community thus builds capacity to take more initiatives to improve their own living and working conditions. Partnerships between the community and the other partners (government and private sector) could facilitate further understanding and cooperation.

## **Type of work suitable for community involvement**

Based on experience certain guidelines could be deduced regarding the kind of work where the community could be involved. The kind of work suitable for community involvement should:

- Not be of high risk or hazard.
- Not be technically or managerially complex.
- Not be very mechanised.
- Not capital intensive.
- Be of routine nature-know how is available or can be relatively easily accessioned.
- Not be requiring special skills or equipment that takes a long time to acquire.

Some examples include (but are not restricted to): Excavation of water and sewerage lines, laying of pipes, jointing of pipes, cleaning of manholes, minor repairs, maintenance routine checks, operation of small infrastructure facilities, collection of domestic refuse, street cleaning, construction of small and medium size manholes, general labour based works, plastering, masonry works, small buildings, small access pavements. Some of the above activities are of recurrent nature.

However, the question of when community based approaches can technically be used, can not be answered that easily. In cases such as Hanna Nassif, the initial scheme to provide a simple storm water drainage system became more and more difficult and technically demanding due to the ground levels in the settlement. The large storm water drain was regarded as major works and it was proposed to be constructed by a labour-based private contractor. However, the community had more confidence in themselves than in a private contractor and decided to carry out the work under a community contracting system. Although the community successfully completed the works they had to rely heavily on the directions and supervision of the technical assistance team and in particular on the site engineer seconded from the City Council. Currently, in the second phase of the Hanna Nassif project, all specialised water supply works will be tendered to private contractors. In addition some road and drainage construction works will be carried out by private contractors, to allow comparison between the performance on community contracts and private contracts.

## **Community Contracting in Hanna Nassif**

In developing a settlement area various actors play a role such as communities, government organisations, NGOs/CBOs and private sector. The use of a contract facilitates a clear goal oriented division of tasks between partners and therefore assists in developing constructive partnerships.

In each contracting situation there will be a client who requires the work to be carried out and pays for the work and a contractor who implements the work. In most cases consulting engineers will assist the client in preparing the design and the contract documents, evaluate the tenders and supervise the work of the contractor.

In all community contracts, a community group acts as contractor and is responsible for the implementation of the work. In Hanna Nassif, a community construction committee is the community contractor and is responsible for the proper implementation of the works. The construction committee is a sub

committee of the Community Development Committee (CDC) which consist of (elected) representatives of the community and their main function is to represent the interest of the beneficiaries. The CDC is legally registered and operates their own bank accounts.

Although the community construction committee signs the sub-contracts, the CDC, is the legal entity and therefore the CDC will keep the end responsibility.

Depending on the skills of the community, the availability of outside assistance and the type of construction work envisaged the following contracts can be prepared:

1. Labour only contracts. The community is only responsible for the labour organisation of the work.
2. Labour and material contracts. The community is responsible for both the labour and material input for a certain construction activity.
3. Full contracts. Under a full contract the community provides the labour, material and the necessary equipment. Although the use of equipment will be limited under labour-based works, equipment can be a major bottleneck for proper implementation of the work. Examples of equipment needed in labour-based works are: hand tools and protective equipment (such as gloves, rubber boots etc.), a concrete mixer and pedestrian rollers for compaction. Some of the equipment can be hired from private enterprises. However, in the case of a full contract the community must be fully aware of this extra responsibility and provisions have to be made for operation, maintenance and safe keeping. In the Hanna Nassif project the community purchased the equipment under a separate donor grant and appointed (and paid) a community member as storekeeper.

Although the different contracts will all require their own specific contract documents there are some considerations which are valid for all community contracts. In all cases community contracts should:

- be well discussed between the contract partners with a full agreement on the final outputs
- be simple and transparent
- have a very specific and measurable description of the final output
- have clearly defined incentives and sanctions.

Experiences can be used from training projects and programmes for labour based small scale (or petty) contractors. The small-scale contractors often do not have much experience in preparing precise cost estimates for the proposed works. To assist the contractors, contract documents are prepared indicating the quantity of work (bill of quantities) and the unit prices for the various activities. The contracts are evaluated based on the quality of the proposal. This will lead to simple contract documents and a reduced role of the contractor in the preparation of the contract. The community contracts could follow this example<sup>4</sup>.

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<sup>4</sup> In managing small contracts - J.M. Lantran - The World Bank, there are suggested outlines for simple contracts for employing consultants for design and for employing consultants separately for

## **Work organisation**

Labour based works involves the hiring of a large workforce and therefore proper site management is essential. There have to be sufficient site supervisors (which can be trained community members) and technical staff experienced in the use of labour based methods.

The relation between work and pay has to be discussed in an early stage. In Hanna Nassif, as on most labour-based sites, labourers are paid according to a task rate system. This means that workers are only paid after the accomplishment of a set task. The task rate and the level of pay should be discussed and agreed with the community. This often results in heated discussions as it is in the individual labourers' interest to have high pay but on the other hand the community is interested in creating and improving as many assets as possible with the limited funds.

In all cases the progress has to be monitored and well recorded. This involves direct work inspection, progress reports, investigations of complaints etc.. Due to the fact that most communities are inexperienced in implementing works, much emphasis should be put on the proper monitoring and technical support of the process. Monitoring is also important for the community beneficiaries to inform them on the progress and problems encountered. Lack of information can hamper the community participation and contribution.

## **2.4 MAINTENANCE**

With every type of infrastructure, there is a need to carry out regular inspections and maintenance activities. Having had experience in constructing their assets, the community should be better placed to carry out routine maintenance tasks without external funding or the assistance of the local authority. It is also expected that a sense of ownership has been created and that this will increase the community's interest in maintaining the asset.

The cost to carry out the routine, periodic and emergency maintenance repairs should be discussed during the planning stage of the project, to ensure that the responsibility for maintenance is clear. If the community is responsible for the maintenance of the community infrastructure, strategies have to be developed to ensure that the community has the funds to carry out the maintenance.

In Hanna Nassif various strategies have been tried, e.g. house to house collection, collection on special occasions and the collection of road toll. Only the collection of road toll has resulted in sufficient funds to maintain the roads and drains. The collection of road toll has been authorised by the local authorities but it is the CDC

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site supervision. The first type of contract could be used by the community to hire engineering services, and the second by the funder / support agency to ensure that the quality of the works was satisfactory.

who collects the funds and ensures that maintenance will be carried out with the funds.

Each car entering the Hanna Nassif settlement pays Tsh 200 (USD 0.30) per day and a truck pays Tsh 500 (USD 0.75) per day. This is sufficient for the routine maintenance of the roads and drains constructed under phase I for which a maintenance plan has been developed. Currently this road toll maintenance system is temporary suspended due to upcoming elections for community representatives in Hanna Nassif.

## 3. Conclusion

### 3.1 STRENGTHS AND WEAKNESSES OF LABOUR AND COMMUNITY BASED APPROACH

There are various reasons for involving the community in the infrastructure works. In Tanzania and Uganda for example reasons for carrying out the work under community contracts are<sup>5</sup>:

- Strong involvement of the community is necessary to avoid conflicts and demands for compensation.
- To create employment opportunities for the un- or under-employed in the settlement
- To improve skills and capacity of local people to address services and maintenance requirements.
- Weak local private sector contractors.
- The community contractor not only benefited from the contract but also from the assets created. Shirking of contract less common.
- To formalise relations (participation) between the government (city council) and the community.

In Asia for example in Pakistan, India and Sri-Lanka the reasons to involve the community are:

- Lack of municipal capacity to meet demands on their own due to massive urbanisation.
- Political pressure both from national and international organisations.

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<sup>5</sup> Source: paper presented at the Regional Seminar for Labour-Based Practitioners (Lusaka, May 1999) on community partnered procurement, by Sohail Khan WEDC and Wilma van Esch, ILO ASIST

- Generation and support to: employment creation, improvement in income and small enterprise development.
- Assumption that if the community is involved the municipal authorities will have to spend less resources on operation and maintenance of assets created.

**Weaknesses of community contracting are:**

1. The time and effort required to ensure full participation of the community, to discuss contract proposals and reach agreements;
2. The reliance on the adaptability of the local authorities to deal with communities and the level of support which is required to assist the communities.
3. Trained workers and community contractors can find employment elsewhere and leave the work site which can reduce the construction progress and leave maintenance skills depleted within the community, thus reducing the impact of training for the immediate community;
4. The fact that the community representatives are elected can result in frequent changes within the community committee which could lead to additional training requirements and delays.

**3.2 ISSUES WHICH NEED TO BE ADDRESSED**

Although with time, more governments are emphasising the positive advantages of using labour-based methods, this often remains an option for rural infrastructure works only. There is a need for the expansion of the use of appropriate technology and local resources, from the rural to the urban context. If standards and specifications remain based on advanced technology solutions, then there will be little scope for communities to participate.

Initiatives are being taken in the field of planning standards and this should assist in the making of community-based infrastructure upgrading possible to a standard acceptable to the municipal authorities and affordable by the authorities and communities. With out these steps there is little chance of the isolated ‘pilot projects’ becoming part of the routine working methods of the authorities.

The main issues that need to be addressed include<sup>6</sup>

- the zoning of planning regulations into formal and informal planning areas to allow for various standards;
- the setting of realistic and affordable levels of service for unplanned areas;
- granting of planning/ construction permission in line with the adopted levels of service;
- an ability to be able to be flexible and responsive to new solutions and methods of financing of infra-structure;
- re-assessment of the ways in which contracts are put out to tender and awarded. (perhaps a special category of community contracts);
- the creation of bye-laws for community administration of assets;
- provision of support services for communities acting as contractors.

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<sup>6</sup> Source: Community Contracts in Urban Infrastructure Works, Tournee J., van Esch W., draft working paper ILO ASIST, December 1998.

- public/private partnership development
- to develop a property tax system whereby part of the property tax can be collected by CBOs to finance maintenance activities and new initiatives,
- registration of CBOs and NGOs and the establishment of a clear legal framework in which they operate.
- connection of services in unplanned settlement to main system (e.g. solid waste collected from transfer sites on border of settlement)