Employment-intensive investments –

Can productivity indicators measure their economic impact?¹

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Employment promotion in low-income developing countries

The creation of productive employment is one of the most effective ways to reduce poverty on a sustainable basis. In low-income countries, employment-intensive (EI) programmes generate more direct and indirect local employment opportunities and income by using locally available inputs (materials, simple tools and local labour) and thus creating a greater demand for local products and services than do high-technology programmes reliant on imported technology and equipment. Employment-intensive programmes thus have a much greater income-distribution effect.

Given the relative scarcity of production factors (capital and skilled labour) and the relative abundance of unskilled labour, low-income countries could rapidly achieve full employment through employment-intensive growth by applying labour-intensive technologies in as many sectors as possible. This would, as advocated strongly by the Nobel Prize winners Jan Tinbergen and Amartya Sen, rapidly increase the demand for unskilled and low-skilled labour and provide jobs for the unskilled under-employed and unemployed poor, parallel to the often scarce possibilities to create jobs with higher productivity. With persisting under-employment and unemployment, these methods are economically attractive and socially efficient for generating and distributing income in favour of the mostly unskilled poor.

It is therefore economically rational for developing countries to lift or reduce barriers hindering the optimum use of their abundant unskilled labour. Many factors, commonly known as “distortions”, affect prices of production factors and outputs and prevent the realisation of an economically desired “optimum”. Distortions are caused by overpriced currencies favouring the use of imported capital goods over local inputs (labour and materials), or by legal, administrative or commercial regulations, vested interests (including corruption), and preferences for “modern” technology that is not favour of the mostly unskilled poor.

In rural road rehabilitation the labour-intensity increases from 10-12% under equipment-based to 30-45% under labour-based methods of work.

³ A short review based on an unpublished article (presently being finalized and reviewed) by the same author.

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If labour-based technology is such an obvious solution, why hasn’t it taken off like wildfire? What is to be done?

As I write this editorial, I hear of the World Trade Organisation (WTO) in Mexico and the lack of progress in reaching common ground between the developed North and the developing South. More and more, I muse, those that are disadvantaged are insisting on balanced and equitable market opportunities, taking into account that developing countries are primarily agricultural based societies.

We also know that over 80% of the world’s poor, and over 93% of the world’s ultra-poor, live in the rural areas of the least developed countries, and that this compounds the pressure on increased rural-urban migration. It is the poor to whom this ILO Programme has been addressed.

The evidence is there to show that the adoption of employment-intensive policies (and the institutional strengthening to implement them), and the use of Labour-Based Technology can have a radical impact on the prosperity of the communities in countries with low labour costs and high unemployment levels. There have been pilot studies, demonstration projects, and seminars and workshops. In many cases, the approach has been institutionalised within technical line ministries, particularly in the roads sector. Both this evidence and the proven practice go back well – more than 20 years, in fact – before the start of the ASIST Programme. Why then, has this approach not been at the forefront of the development process?

To this there are many answers, which often relate to the lack of support by some major investors in development and the fact that their policies are not conducive. However, this is too simple an explanation, and I believe that part of the reason lies within the alignment of the ASIST Programme, which needs to be reviewed. The Programme’s roots lie in technology and engineering i.e., in the application of appropriate technology to both meet the quality and cost objectives of the demand for infrastructure, and in a way that also meets the objectives of social and economic poverty reduction and employment creation. In other words, the Programme has been mainly a process-orientated engineering initiative, and one largely focused on the roads sector though broadening in more recent times.

Since the Programme’s inception, the development context has changed. There is now a focus on the Millennium Development Goals, including the objective to reduce poverty by 50% by 2015. Some development partners are recognising and focusing more on infrastructure as a key means to meet these goals, and country strategies often quote employment and poverty reduction targets.

Consequently, the ASIST – Africa Programme is undergoing a review process involving consultation with stakeholders and partners, to ensure that in future initiatives it is aligned more directly with the objectives of, and works closely with the new partners that are emerging. Initial assessment shows that, in essence, integration of employment-friendly technology within a multi-disciplinary focus to help Member States address the issues in their national employment and poverty reduction targets should be promoted more actively. We believe that this will lead to an increase in impact and sustainability of employment-intensive approaches. Should we be moving from ‘Engineering for Development’ to ‘Re-engineering Development for Full Employment’? What are your views in this broader context?

The articles in this issue demonstrate the impact of different programmes undertaken in various environments and provide lessons on some of the challenges faced, particularly related to sustaining impact. The centrefold seeks to present some of the key issues and considerations fundamental to ensuring sustainability and impact of employment-intensive approaches. We trust you’ll find lessons that you can draw upon and welcome your comments and views.

Graham Johnson-Jones
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The (lead) role of public investment in employment promotion

Public investment programmes, and particularly those in infrastructure, have a huge employment creation potential in developing countries. Investment in public infrastructure accounts for as much as 40 to 60% of national public investment in most of these countries, which amounts to investments of some USD 200 billion per year, according to World Bank data. Public investment programmes are generally considered as public policy instruments aimed at producing economic, social and transport infrastructure outputs. However, given their relative importance in relation to national income and the overall public sector, they present one of the few remaining government policy instruments through which productive employment opportunities can be created and more economically and socially balanced development promoted. Experience shows that only minor shifts towards more labour-based techniques in the very large investment streams in this sector would have a huge impact on job creation in the production, operation and maintenance of infrastructure assets. To achieve such shifts, political commitment for employment creation and local economic development is essential, if an enabling environment in which small enterprises and communities can carry out infrastructure works using locally available human and material resources is to be created.

For more than 25 years, the ILO has advocated the promotion of employment and poverty reduction through EI public investment programmes. Evaluation reports on EI programmes refer to their employment and income generation effects as being the most striking and visible benefit and their most important justification. Such impact has been extensively documented: rural gravel road rehabilitation generates, for instance, at least three to four times more local employment when executed by labour-based techniques (labour intensity increases from 10-12% under equipment-based programmes, to around 30 to 45% under labour-based programmes). However, the indirect (short-term) income and employment effects derived from spending of earnings have a much greater impact on the local economy. The indirect income “multiplier” effect is generally estimated at between 1.5 and 2.8 for low-income countries.

Productivity – types of indicators

It is economically imperative to maximize production factors’ productivity so as to minimize waste of scarce resources and create the conditions for increasing wages and profits. In economic terms, productivity is output per production factor or factors. Different types of productivity indicators can be distinguished:

(i) Labour productivity: production (output) per labourer (Q/L);
(ii) Productivity of capital (goods), i.e. the sum of all non-labour inputs: production (output) per unit of invested capital (Q/K); and
(iii) Overall, total-factor productivity: production (output) per total value of production factors (Q/(L+K)).

In low-income countries productivity can be specifically enhanced by better use of its scarce resources, such as capital (increase in capital productivity – output/capital = Q/K) and skilled labour. This situation is totally different from the industrialized world, where capital is abundant and wages high, here productivity gains are mostly obtained by savings on its scarce production factor “labour” (an increase in labour productivity – Q/L).

In developing countries, the bottleneck to production increases is capital, hence the need to increase its productivity through the application of labour-intensive techniques. The productivity of skilled labour can be promoted through training programmes to improve the potential output and knowledge (quality) which simultaneously decreases the number of available unskilled workers on the labour market. Since skilled labour (including management) organises the production process, an increase in its quantity and quality should have a positive economic impact on it in terms of a more effective and efficient use of scarce production resources. Investing in skills will therefore decrease production costs and/or increase quality and quantity of production output.

Overall “total-factor” productivity would also benefit from this approach but the effects would be difficult to measure, for defining the (hypothetical) “unit” for the production factor “capital” is difficult. This might be one

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3 The following ILO’s Employment Intensive Investment Programme’s studies are of particular interest:

- Cambodia: “Jobs or Machines - Comparative Analysis of Rural Road Works in Cambodia”, under final preparation by ILO ASIST-Asia Pacific

4 A correct formula for measuring total factor productivity (TFP) is: TFP = Q / (L*K)

where Q is real output, K and L are capital stock and labour size respectively, and \( \Delta L \) and \( \Delta K \) are labour and capital shares in total costs. With the assumption of constant returns to scale, we have \( \Delta L + \Delta K = 1 \)
of the main reasons for the “popularity” and frequent use of the labour-productivity indicator. However, the financial and economic costs of the output (e.g. one kilometre of road) provide quite an acceptable indicator for comparative estimates of total-factor productivity of equipment-based and labour-based production technologies used in producing the same quality output.

Studies undertaken by the ILO in both Africa and Asia have shown that overall “total-factor” productivity (measured in “cost” terms as suggested above) is usually considerably higher in labour-based construction activities than in those works executed with equipment-based techniques. For example, the rehabilitation of rural gravel roads to equal standards proved to be less costly with labour-based techniques than rehabilitation with heavy equipment, yielding 7 to 105% higher “total-factor” productivity. This is in spite of the fact that labour productivity rates of labour-based works ranged only between 3 and 30% of their equipment-based equivalents, and would thus not have been favoured had labour productivity been used as the selection criterion.

Productivity and wages

Clearly, productivity gain is a condition for increased wages and better labour conditions, and for increases in profits. Though certainly necessary, increases in labour productivity are alone not sufficient to effectively increase wages. Market forces in terms of abundant labour availability will keep wages low, particularly in the absence of well-organized labour movements. This has been demonstrated by the above ILO studies where it was found that: unskilled labour employed on equipment-intensive works were paid virtually the same wage as their colleagues on labour-based works, in spite of the four to nine times higher labour productivity of the former.

Specific measures and incentives could and should be introduced to favour the sharing of higher “total-factor” productivity gains between the participating production factors, capital and labour. Workers could be favoured in different ways such as minimum wages (adjusted periodically!), better secondary labour conditions (achieved through appropriate application of relevant labour standards), tax-incentives promoting redistribution of productivity gains in favour of labour, task rates with safeguards for appropriate wages and working conditions, and so on.

Conclusion

This article illustrates why it is important to have an appropriate understanding and analysis of productivity for the benefits of employment-intensive approaches to be maximised. It explains how productivity can be increased and how the benefits from higher productivity can and should be equitably distributed between participating production factors – capital and labour (i.e. through improving wages and labour conditions) – and provides modalities on how this can be achieved.

The following summarises key issues drawn from the article for consideration in national employment policies and ILO policies for low-income developing countries:

- Full employment of the abundantly available unskilled labour force can be achieved within a reasonably short period of time if labour intensive technologies are extensively applied across a great number of sectors. Through the multiplier effect higher demand will be created for local products and services, which will generate considerable indirect employment and result in important income distribution effects and the reduction of poverty;
- More attention and research on the economic comparative advantage of low labour costs in developing countries is required;
- Labour-based production has by definition a relatively low labour-productivity (though this may be improved through better work organization, appropriate training, etc.), but it can, in spite of this, have a much higher “total-factor” productivity, as studies on labour-based road rehabilitation have demonstrated. “Total-factor” and not labour-productivity should be the measure of productivity in low-income countries. “Total-factor” productivity should be improved by concentrating on the better use of scarce production factors (i.e. capital and skilled labour, including management);
- An increase in “total-factor” productivity is a necessary but not a sufficient condition for wage increases and the improvement of decent working conditions. The actual labour market situation will greatly determine whether wages and other working conditions improve or not. The abundance of unskilled labour will keep wages low in developing countries, in spite of high (labour) productivity in a limited number of sectors such as the “high-tech” sectors where wages for the unskilled workers tend to remain at the same low level as in the low-labour-productivity sectors;
- Specific measures are required for the equitable sharing of productivity gains between capital and labour at several levels starting with the introduction of minimum wages and decent working conditions.

Indeed, in view of its employment promotion objectives and “Decent Work” mandate, the ILO should not limit its advice and technical assistance to the infrastructure sector alone, but should also promote these technologies in private investment and enterprise promotion programmes (e.g. agriculture, food processing, textiles, private construction, etc.) without losing sight of the quality and decency of the work.

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A case study of the impact of selected access interventions in two rural districts of Zimbabwe

By Camilla Lema, ASIST – Africa and Tatenda Mbara, University of Zimbabwe

**Introduction**

While poverty has generally been understood as the deprivation of human needs primarily emanating from low income, empirical evidence (Dawson and Barwell 1993, Edmonds 1997) suggests that the level of access to basic goods and services is also closely associated with factors contributing to poverty. In general, there is a lack of access to basic goods and services, as well as to productive employment and income generation opportunities, in most rural areas of developing countries. Therefore, enhancing people’s access to basic social and economic services contributes to poverty alleviation.

**Rural transport study in Zimbabwe**

About 75% of the population in Zimbabwe live in rural areas that have difficult access conditions. Against this backdrop, the Government of Zimbabwe, through technical support from the ILO/ASIST and financial support from the Swedish International Development Agency (Sida), undertook a Rural Transport Study (RTS) in three rural Districts. This was the first study to address travel and transport needs of the rural people. The study had three principal objectives, namely:

- To develop a better understanding of the rural travel and transport patterns in Zimbabwe;
- To encourage the implementation of a number of access interventions in order to demonstrate possible solutions to rural transport problems;
- To ultimately contribute to the development of a national transport policy that addresses the travel and transport needs of the rural population.

During the RTS, comprehensive data concerning all daily trips made by members of the household was collected. Community participation was instrumental throughout the study, especially at the stages of:

- **Data collection** – this was collected through both questionnaires and participatory appraisal methods;
- **Validation** – feedback workshops were held in each District, primarily to validate the data collected in order to ensure that it did represent the situation on the ground.

The RTS was an ‘eye-opener’ in that it changed people’s perceptions of rural travel and transport. Although rural transport was taken as meaning the use of tarred roads and motorized vehicles, the results of the study revealed that people in rural areas made a lot of off-road trips. The principal findings are summarized in Box 1.

Following the rural transport study, and in pursuance to the second objective of the study, a selected number of access interventions were implemented in two of the three Districts. The interventions selected for implementation took into consideration the views of communities, particularly women (who shoulder the greatest travel and transport burden), the resources available at local level, as well as the national targets in the Districts. Three types of interventions were implemented:

- **Footbridges and footpaths** – direct infrastructural transport interventions intended to enhance accessibility;
- **Boreholes** – non-transport interventions aimed at reducing the need to travel long distances by appropriately locating services and facilities;
- **The provision of a loan scheme to acquire intermediate means of transport (IMTs).**

**Box 1: Summary of study findings**

- A typical rural household spends on average 70 hours travelling per week.
- The majority of the trips (approximately 86%) undertaken are short and invariably on foot.
- The travel time is excessively long, despite the short distances travelled.
- Women bear a disproportional amount of the travel and transport burden, and predominantly through headloading, e.g. women and girls carried out 95% of water transportation by headloading.
- The average amount of travel undertaken by a household for subsistence needs by all modes equated to 60 tonne-km per year, of which 48 tonne-km was the responsibility of women.
- Male participation in activities such as water and fuel wood collection and grain processing was found to be higher whenever IMTs were used.
- Public transport was mainly used on long distance travel for trips to hospital, commercial centres, sourcing farm inputs, and crop marketing.

In general, the availability of conventional transport, e.g. road infrastructure and services, did not appear to be an important variable with which to determine or explain travel and transport patterns. Instead, access to services was found to be a better variable in explaining certain patterns of travel and transport.
Before implementation, the local communities involved were mobilized. Their expected level of participation was discussed and local committees to manage the projects were set up. A Local Project Committee was elected for each project, and the local communities thus saw themselves as primary stakeholders and owners of the projects.

The beneficiary communities agreed to a cost-sharing mechanism whereby they supplied materials available locally (such as concrete, stones, sand, and water) as well as the labour required. With the exception of boreholes and the footbridge in Zaka District, infrastructural interventions were constructed by the local communities with technical advice provided by the respective Rural District Councils (RDCs). Figure 1 shows an example of a footbridge constructed by the community and Figure 2 depicts the footbridge constructed by a private contractor with the local communities providing labour.

Socio-economic impact of access interventions

In the attainment of the third objective of the RTS, a socio-economic impact assessment of access interventions implemented in the two Districts was undertaken in early 2003. The results of the study have revealed that immense benefits have accrued to the beneficiaries.

Impact of the footbridges

Footbridges constructed in the two Districts have greatly enhanced year-round accessibility to social and economic services and facilities. Specifically, the benefits include:

- **Ease of crossing rivers** – in Zaka District, before the construction of the footbridge, the local community made use of logs to cross the river, an unsafe practice that at times resulted in people slipping and hurting themselves, and sometimes even dying as a result;
- **Travel time savings** – before the construction of footbridges it was common for people to spend considerable amounts of time looking for safer crossing points;
- **Safety** – prevention of loss of life by drowning.

The linkages between lack of access and poverty are apparent. For instance, in respect of education, absence from school as a result of a flooded river would mean that the affected child falls behind in class. In turn, general performance is affected, clearly limiting the child’s educational prospects and, in turn, future employment opportunities and the chance to earn income. A school teacher in Chipinge District summarized the benefits as follows:

“Footbridges are a necessity as the school is surrounded by rivers. During the rainy season we experience half attendance with observed correlation between absence from school and poor academic performance.”

Year-round access to fields and markets has increased the capital base of rural people. With footbridges in place, local communities are able to work in their fields and can access markets to sell produce without being constrained by flooded rivers. A female respondent in Chipinge District had this to say:

“The footbridge is greatly helping people to access fields. As you are aware, we depend on farming for a living and when we fail to access our fields you can imagine what would happen.”

Impact of the footpath

A four-kilometre footpath connecting a village with a number of services was improved. The footpath had 11 gullies over which footbridges have been constructed. Prior to the improvement of the footpath, the IMT users were taking a route that added three kilometres to their trip in order to access

Table 1 below summarises the infrastructure projects implemented in the two Districts:

<table>
<thead>
<tr>
<th>District</th>
<th>Interventions Implemented</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chipinge</td>
<td>Footbridges (6)</td>
<td>15-30 m</td>
</tr>
<tr>
<td></td>
<td>Footpath (+11 footbridges)</td>
<td>4 km</td>
</tr>
<tr>
<td>Zaka</td>
<td>Footbridge</td>
<td>40 m</td>
</tr>
<tr>
<td></td>
<td>Boreholes (4)</td>
<td>–</td>
</tr>
</tbody>
</table>

Table 1 below summarises the infrastructure projects implemented in the two Districts:
the desired services. The benefits of the improvement include:

- Ability to use IMTs such as bicycles and wheelbarrows;
- Shorter traveling distance for IMT users. This is the most significant benefit as the saved time can be reallocated for other productive work;
- Easier and safer travel in a congenial environment.

**Impact of boreholes**

Four boreholes were constructed in Zaka District in response to the findings of the RTS, which revealed that households in Zaka were spending a disproportional amount of time collecting water. The boreholes have provided considerable benefits to the respective communities in terms of:

- **Reduced traveling distance and time** – as confirmed by beneficiaries, the saved time has been reallocated for activities such as crop production and brick-molding which are vital for income generation;
- **Reduced health risks** – before the construction of boreholes, most households were drawing water from unprotected sources such as streams and canals. Several deaths had occurred as a result of drinking water from such sources. It was further pointed out that number waterborne diseases had significantly reduced since the construction of the boreholes. Clearly, the benefits are immense, as illustrated by the views expressed by a Nurse-in-charge at a clinic in the District:

  “In September 1999, there were 66 cases of cholera and nine deaths occurred. All the nine were living along the canal. The cause is related to poor hygiene and the quality of water had a contributory factor.”

- **Changing roles and effort** – the introduction of boreholes has changed roles in respect of the responsibility for water collection. In one case, this responsibility shifted from adults to boys and girls because of the proximity and the fact that is easier and safer to draw water from a borehole than a canal. With boreholes closer to home, the general responsibility for water collection has shifted from males (who previously used IMTs to collect water from far away) to women, who can now make frequent trips. By and large, women, who according to the RTS previously had a 95% share in water collection by head-loading, have greatly benefited from boreholes.

**Impact of Intermediate Means of Transport (IMTs)**

IMTs are principally used for crop production, water and fuel wood collection, going to the grinding mill, carrying the sick to clinic, and as draught power. According to the beneficiaries, the advantages of IMTs include:

- Ability to carry greater loads;
- Reduced burden, particularly on female members of the household. In addition, the availability of IMTs has increased male participation in those tasks traditionally performed by females. As pointed out by a female respondent in Zaka District:

  “In the past, it was unheard of to ask my husband to headload grain and go to the grinding mill. Now he takes the initiative to fetch water and go to the grinding mill using the wheelbarrow that we acquired through the revolving loan fund.”

- Income generation through hiring out IMTs and the income raised has greatly assisted the ability of poor households to buy basic necessities. One female respondent affirmed that hiring out IMTs had changed people’s livelihoods; they are now able to generate income to buy essentials such as soap, and even pay school fees, thus reducing poverty. There are also wider community benefits as IMT beneficiaries lend them to relatives for no fee, a practice consistent with African culture to assist members of the extended family, thus making the benefits of IMTs far reaching.

**The lessons learned**

Notwithstanding the considerable benefits of the access interventions, some lessons need to be highlighted.

Firstly, although the RTS was conducted in three Districts, the impact study was confined to the two Districts of Chipinge and Zaka. Due to lack of technical capacity, Rushinga District lagged behind in the implementation of access interventions. In fact, the need for the availability of technical capacity at local level was one of the important lessons learned in the implementation of access interventions.

Secondly, poor workmanship, compounded by the use of untreated timber on footbridges in Chipinge District, has resulted in a shorter life span for these interventions. Clearly, technical capacity at local District level – especially in the use of labour-based technology – is a prerequisite for the implementation of physical access interventions. Moreover, despite the intensive use of labour during construction, the lack of technical capacity and supervision generally resulted in a poor finished product.

Thirdly, there is need to institute proper maintenance for both footbridges and boreholes as no maintenance plans were put in place. Although it is the responsibility of the communities to maintain these facilities, there was no evidence of this taking place, which raises concerns on sustainability.

Fourthly, the sustainability of the revolving loan fund is questionable, as beneficiaries are not paying back the money borrowed, thus defeating its purpose. In addition, due to high inflation, the cost of IMTs is escalating at an unprecedented rate, which is significantly reducing the number of people who might benefit from the revolving loan fund.
Emergency employment creation in Badghis Province, Afghanistan

This article was prepared from The Technical Evaluation Report, Emergency Employment Creation in Badghis Province, Afghanistan, May 2003, by Christopher Horwood and Bas Athmer

In response to the highly insecure food situation and the extreme vulnerability of the rural population in Abkamary District of Badghis Province, Afghanistan, World Vision, with financing from ECHO, carried out a project on food security and income generation between October 2002 and May 2003. The primary objective of the project was to provide emergency humanitarian assistance to rural food-insecure communities in Badghis Province and to reduce food insecurity caused by the inadequate harvest and the interruption in World Food Programme (WFP) distribution. To achieve the objectives, roads and irrigation schemes would be reconstructed and rehabilitated using labour-intensive methods, which would result in cash income to the targeted beneficiaries and thereby increase their access to food. The secondary objective was to contribute towards reducing future food insecurity by creating better access to markets (road assets) and by increasing agricultural productivity (improved irrigation systems). Planned physical assets included:

- Up to 35 km of roads to be rehabilitated to improve access to local markets;
- Up to 12 km of water retention bunds to be constructed to prevent erosion and to improve agricultural productivity;
- Up to 18 km of irrigation systems to be constructed or rehabilitated to improve agricultural productivity.

The target group comprised 1,165 families (with an average family size of six) from villages in Pada, Kuchan, Gulkhana, and the Chashmah Shirin Valley. World Vision International (WVI) implemented the project.

An evaluation was carried out in May 2003 out to assess the relevance/appropriateness, effectiveness, impact, efficiency, coverage, and coordination of the project and to formulate recommendations for similar future interventions.

Evaluation methods and data collection

Interviews and focus group discussions were held with WVI staff, other NGOs operating in the area, staff of government line agencies, and with the Deputy Governor. Information was also gathered from meetings of the various line ministries, UN agencies, and NGOs at the Governor’s Office, and from available documentation. The physical infrastructure works constructed by WVI and selected infrastructure works completed by other NGOs were inspected. Focus group meetings were conducted in selected villages that benefited from the project. In addition, randomly-selected individual beneficiaries from the project area were interviewed. In the selection of the villages the following parameters were considered: a) types of work, i.e. roads and/or irrigation, in which the beneficiaries were involved; b) distance of the village from the constructed road; c) distance of the village from the nearest market (Quala-I-Naw); and d) involvement of women in the work. As ‘controls’, two villages that did not benefit from employment opportunities were also included.

Findings

The project has been very successful in achieving its primary objective of reducing food insecurity amongst the communities in Abkamary District by means of income generation activities that enabled the purchase of food. More than 140,000 workdays of employment were created, of which about 20% were for women, with more than 4,000 families benefitting from the project. This is almost three times as much as was originally envisaged. As originally envisaged, the average income earned per family was about 66 Euro, equivalent to approximately four monthly WFP food rations. Within the targeted villages, the principle of equal access to job opportunities was well maintained, with democratically elected Village Organisations (VO) playing an important role in this process. In the last six years, DACAAR, AREA, and WVI have been very active in facilitating the process of establishing these VO’s in the Province. With regards to access to employment opportunities, inter-village equality was reasonably well balanced. The average earnings per beneficiary within three of the four villages covered under the survey varied from 60 to 75 Euros. This figure was reduced in the fourth village where the average earnings were around 13 Euro. Those villages located further away from the work sites were excluded from access to jobs due to the distance between their homes and the work site. Information collected during the evaluation suggests that these more isolated villages are relatively more vulnerable in terms of food security.

The total investments per workday were 3.53 Euro, which is 50% more cost-effective than the total investment costs per beneficiary (5.20 Euro) of a similar project in Badghis Province that

1 The evaluation was carried out by Christopher Horwood, an independent consultant who covered the food security aspects, and Bas Athmer who was responsible for the engineering evaluation of the project. Bas Athmer is the ILO Chief Technical Adviser providing guidance to the National Emergency Employment Program.
was implemented by another NGO. Of the total budget, 500,000 Euro (about 62%) was spent on the infrastructure component, 20% was on personnel, 9% on transport (vehicles) and 6% on administrative costs. This expenditure pattern indicates an efficient allocation and utilisation of the funds. Expenditure on wages (203,170 Euro) constituted 66% of the total expenditure on the infrastructure works component (308,854 Euro). Considering the project’s main objective, this distribution is considered appropriate although it did compromise the quantity of the engineering works. Although the need for increased funding for construction materials was recognised in the revised budget (136,209 Euro, or 47% of the infrastructure works budget), estimated expenditure on construction materials was less than this (105,684 Euro).

The wage rates that were applied by the project for earthworks were considered appropriate. The principle of equal payment for work of equal value was reasonably well maintained when these wages rates were compared with the prevailing local wage rates for unskilled casual labour. Negotiated contracts were signed with the villagers for gravelling, with haulage done by donkeys. Available information indicates that the assumed donkey-productivity was too low. All farmers interviewed confirmed that gravelling was more attractive than working as an earthwork labourer.

The project’s selection of the most important district road was highly appropriate. Given the constraints, the project succeeded very well in constructing the 27 km road section. Regarding the work done on improving the irrigation systems by cleaning and reshaping the various sections, the evaluation observed that these types of activities were very appropriate in respect of the project’s objective of promoting the participation of women in the works. From an engineering point of view, however, these activities did not contribute significantly to the improvement of existing traditional irrigation systems or in addressing water losses through seepage in these earthen irrigation canals. Structural and durable interventions required to address these problems are, however, more capital-intensive. The quality of the road and irrigation works was found to be generally acceptable, considering the limited skills available locally.

The evaluation found that there was only limited success in achieving the secondary objective of the project, i.e. to contribute significantly to reducing future food insecurity by creating better access to markets (road assets) and by increasing agricultural productivity (improved irrigation systems). With the emergency nature of the project, the emphasis on income generation, and time and funding constraints, this objective was compromised. Road network connectivity could not be achieved, nor could sustainable solutions to the various technical problems identified in the irrigation sector (with the exception of one siphon and a culvert). Nonetheless, in spite of these constraints the project-implementing partner did a very commendable job.

Conclusions
The project had a significant (short-term) positive effect on the food security situation in particular and the local social and economic situation in general. Through the project, and the increased rainfall, the current food security situation has improved for the beneficiary villages. The income earned was used for the purchase of food- and non-food items, for repaying loans, and for buying seeds, insecticides, herbicides, and medicines for their livestock. In a few cases, livestock was bought (sheep, goats, and oxen). The job opportunities that the project created also reduced seasonal and permanent migration. However, beneficiaries did express concern about the lack of employment opportunities in the area after the completion of the project.

Without maintenance it is unlikely that the road improvements can be sustained for more than two to three years. It is also unlikely that substantial funding for maintenance will become available during the coming years, even though the estimated yearly routine maintenance costs are only about 15,000 Euro for the 27 kilometres of road that were reconstructed and gravelled.

Lessons learnt and recommendations
It is strongly recommended that realistic labour-productivity rates be used in future when calculating the number of required labour-days. In terms of
required labour-days vis-à-vis the population of the villages, better planning of the infrastructure works is also necessary to ensure more equity between the villages involved. The preparation of comprehensive cost-estimates, based on calculated designs, is also necessary. In addition, alternative construction approaches to enable villages further away from the physical location of the works to access employment opportunities could be considered. For example, using dressed stone for paving would enable the preparation of the stones at the homes of beneficiaries’ located further away, which could then be transported to the work site by truck.

It would be very useful if the donor, within the framework contract for the (re-) construction of a public road, would make funding available for maintenance for a limited number of years. The relevant technical line agencies could be involved in the management of these maintenance works for capacity-building purposes and the maintenance works themselves could be contracted to local Village Organisations. Establishing a maintenance regime is not only required from an economic point of view (preservation of created assets) but also in respect of creating awareness of its importance as part of the project implementation cycle.

If maintenance funds are not expected to be available, it is preferable to focus on construction technologies that require only minimum maintenance. As already mentioned, stone paving the road could have been a good alternative, even though initial investments are higher, as the maintenance costs are substantially reduced, thus having a positive impact on the durability of the intervention. Construction works could be phased over a couple of years. Such an approach would also provide more security to the local population in terms of job opportunities for a more extended period, which could have a very positive effect on the local economy.

One area where substantial scope for improvement exists is that of planning and coordination. At present, there is no effective planning and coordination at Provincial level. This has adverse effects on the efficiency and effectiveness in the programming and utilisation of human and financial resources. With the lack of effective coordination, and the current capacities at Provincial level, there is very limited scope at present for the institutionalisation of procedures and methodologies for the planning and implementation of labour-intensive infrastructure works projects. Given the limited government capacities at Provincial level, qualified NGOs could play an important role in institutional capacity-building at this level by being more pro-active in planning and coordinating their activities with government stakeholders and other NGOs.

Finally, it should be mentioned that the instrument of evaluation is very useful for these labour-intensive infrastructure projects. It not only provides valuable information to government, donors, and implementing partners about the specific project, but it also addresses issues relevant to the strategy and modalities of the Government’s National Emergency Employment Programme.

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Impact evaluation of labour-based housing construction in Nicaragua

By Raul Fajardo, Project Coordinator, Pro-Empleo Project, Nicaragua

Introduction

In Nicaragua, construction and reconstruction works offer excellent opportunities for generating local employment, involving local government, promoting community participation through the use of local labour and resources, and supporting the development of micro-enterprises. The Pro-Empleo Project, with the support of the Institute for Municipal Development (INIFOM) and the National Technological Institute (INATEC) of Nicaragua, promote this through employment-intensive initiatives. The Project endorses the notion that local government should be the main promoter of local development and that it should assume the responsibility of executing municipal investment plans. Pro-Empleo furthermore believes that developing the micro-entrepreneurial sector at local level allows the creation of more and better employment opportunities in the construction sector. It is through this route that Pro-Empleo contributes to poverty reduction in urban and rural poor communities in Nicaragua.

Background

In response to the needs of families affected by hurricane Mitch in 1998, three internationally-funded housing construction projects (comprising a total of 94 houses) were carried out in the municipalities of Ocotal and Mozonte, in the northern part of Nicaragua. The construction works included the provision of drainage, streets, latrines, water distribution networks, and electrical facilities. The total investment in the three projects amounted to US $281,606. The Pro-Empleo project provided technical assistance and training to these projects in the use of labour-based methods and the formation and strengthening of local contracting enterprises.

The houses have a construction area of between 43 and 64 m², and were built on plots of between 273 and 812 m². Various construction methods were used i.e. improved adobe, adobe blocks and cement blocks, depending on the conditions of each locality. Locally-manufactured clay tiles or corrugated zinc were used as roofing materials, and were laid down on a wooden structure of cured pine. Floors were made of cement, and doors and windows of pine. Drainage and mitigation works consisted of the construction of ditches and drainage canals. Each house was provided with its own latrine, and the Pro-Empleo project in co-ordination with the Ministry of Health promoted training in its proper use in order to avoid the propagation of illness. The houses were also equipped with potable water fed by the city system as well as a very simple integrated electrical supply system. Six-metre wide rammed earth streets were constructed to allow both vehicular and pedestrian traffic.

Evaluation methodology

The impact evaluation of these three housing construction projects was carried out by means of a participative approach that involved the following actors:

- Personnel and authorities of local government;
- Small contractors;
- Workers participating in the works;
- Beneficiary Monitoring Committees;
- Direct beneficiaries.

For data collection and impact evaluation, various methodological instruments were used, and incorporated the secondary information generated by each project. The following instruments were used:

- Focus groups with small contractors;
- Focus groups with workers that participated in the works;
- Collective interviews with members of the Monitoring Committees;
- Focus groups with direct beneficiaries;

1 This ILO project (NIC/01/M01/LUX) is financed by Luxembourg.

2 Adobe is a sun-dried mud brick.
Income generation
The total budget for the three projects was US$281,606, of which 19.5% was used for wage payments to small contractors and workers, 43.4% for purchase of local construction materials and products, and 37.1% to buy materials in the capital, Managua, that were not available locally.

Workers were paid US$ 3.4 per day, which represented approximately 100% over the average wage rate of an agriculture worker and 43% over that of an urban worker. This represents a significant improvement to the income of the workers that participated in the works. The impact of this income in the family economy has been very valuable.

Local resources
The use of the local resources was one of the main benefits of the projects. Local materials and resources such as earth, clay, sand, river stones, vegetable fibre, and manpower were used in all three projects.

The project obtained very positive results in terms of the use of local resources in the execution of works. 62.9% of the total budget was spent on wage payments and on the purchase of local materials. This had a positive impact on the incomes of local workers, which are ploughed back into the local economy, stimulating it and creating indirect employment opportunities.

Capacity building
The beneficiaries and small contractors that participated in construction works acquired new skills. With the acquired skills, knowledge and practical experience gained, they can now be considered by other contractors as potential workers for future contracts.

The Pro-Empleo Project carried out various training courses resulting in 713 person/courses for workers and contractors on technical topics. The Project also carried out 457 person/courses for contractors on management of micro-enterprises.

The Pro-Empleo Project has resulted in the creation of three construction micro-enterprises that are qualified to participate in public bids using labour-intensive approaches.

Impact evaluation
Employment Generation
The works lasted from 3.5 to 5 months and were executed using labour-based techniques. Direct temporary employment was generated for 303 people (of which 22% were women), including small contractors, assistants, workers, and direct beneficiaries. When indirect employment is included, the total rises to 513 people (of which 36% were women). One of the projects contracted a local adobe and tile factory, generating a further 55 jobs.

As partial ‘payment’ towards the value of the house, beneficiaries contributed between 120 and 160 workdays per family during the project execution. The Pro-Empleo project trained the beneficiaries in construction techniques using labour intensive methods and promoted their organisation as members of micro-enterprises.

Conclusion
The three construction projects developed by the Pro-Empleo Project have had a very positive impact, and not only in terms of the employment they generated. These projects also improved the beneficiaries’ incomes, and brought social and economic benefits to the communities involved, including the start-up and improvement of construction micro-enterprises. Furthermore, the organisational capacities of local government and communal organisation have been strengthened.

For further information contact the Pro-Empleo Project: E-mail: oitinat@tmx.com.ni
Assessment of the impact of the training of community-based enterprises in Lusaka

By Tomas Stenström, ILO/ASIST, Zimbabwe

Background

The Sustainable Lusaka Programme (SLP) in Zambia is part of the global Sustainable Cities Programme. Funded by Irish Aid, UNDP and ILO on a cost-sharing basis, the programme aims at providing municipal authorities and their partners with improved environmental planning and management capacities by building on the principles of the UN’s Agenda 21. The Sustainable Lusaka Programme was set up as a pilot activity to service the high-density areas where solid waste management and water supplies were a critical requirement. A key objective of the Sustainable Lusaka Programme was to assist capacity-building at community level to plan, implement and manage sustainable environmental programmes with popular participation of the community.

ILO’s involvement in the SLP was to develop training material that would facilitate the training of the poor and the vulnerable on community waste and water management. The aim of the training was to enable Community-Based Enterprises (CBEs) to deliver basic services such as solid waste management and clean water provision at an affordable fee to residents within the settlements. Key outcomes of this approach were to (a) create opportunities for the urban poor to increase their income levels, and (b) to improve the living and working conditions of the urban poor in selected low income settlements within Lusaka.

In addition to developing training materials, the ILO’s role was to help develop strategies and consultative processes, such as the community contracting approach, which would support efforts to develop and improve the involvement and use of CBEs in service delivery. The focus on solid waste and water enterprises was a direct result of an analysis made by the SLP.

This assessment takes a critical look at the impact of the training for community-based solid waste and water enterprises in Lusaka and identifies the important lessons learned.

Training material

Two training packages were developed and piloted, namely ‘Start Your Waste Collection Services’ and ‘Start Your Water Distribution Services’.

A review of the materials development process indicated that the training packages successfully focused on the provision of knowledge and skills and that, overall, the content and presentation was satisfactory. However, further analysis showed that some of the terminology was unclear and the material appeared to be pitched at a level higher than that of the target participants. Another observation was that the training material had a layout that was ‘dense’. In addition, key values such as beliefs, attitudes, and traits that are associated with entrepreneurship did not come out strongly enough.

“Some of the training material was difficult to understand, but with the help of the trainers I was able to grasp the material.”

(A trainee of the ‘Start Your Water Distribution Service Training for Community-Based Water Enterprises in Lusaka’)

Achievements

In total, 60 individuals participated in the training and formed five solid waste and three water CBEs. Although women were encouraged to participate, they accounted for between only 0% and 50% in the CBEs formed.

Overall, with regard to the usefulness of the topics, the relevance of teaching materials for certain topics, and the effectiveness of the training methods used, the ILO training was rated favorably by the CBEs.

“The training was an eye-opener and gave us a chance to see the various solid waste management techniques and how we can run a solid waste enterprise.”

(A member of the Kwawama Waste Group from Ng’ombe settlement.)

“The various training we received from SLP was a blessing. It did not only focus on water, but has helped us run our other businesses.”

(A trainee, Linda Water Enterprise.)

It is generally difficult to effectively evaluate how far the training has helped to make changes in the lives of the participants and in the operation of their CBEs. However, evidence of successful learning included the achievement of set outcomes as contained in the CBE’s Action Plans. These included:

(i) The registration of CBEs – with the exception of one CBE, all the solid waste and water enterprises registered and established their enterprises within three months of completing their training.
(ii) Completion of the Business Plan – of the 80% that completed their Business Plans, 14% of the CBEs attempted to prepare project proposals to submit to a funding agency.

This tangible proof of a successful ‘learning transfer’ shows that the trainees were very eager and enthusiastic to start their businesses after the training. Although exact employment figures are difficult to determine due to inadequate records, there is physical evidence that a number of people are working in the CBEs.

The training component of the SLP has had an impact on the communities as regards various aspects of entrepreneurship development and is considered a key input towards community development. In the long run, the improved capacity is a step towards poverty eradication. The staff of Lusaka City Council (LCC), the Ministry of Local Government and Housing (MLGH), and the community at large have all been sensitized and their skills in proposal writing, project development, negotiation skills, and methods of preparation of community action plans have improved. In some settlements, there are tangible physical improvements, such as water management in Ng’ombe and the community solid waste collection units in Kamanga, Ng’ombe, Linda, and Mandevu/Marapodi. Conceptually, people’s ways of addressing environmental issues have been significantly changed and they now consider themselves as part of the solution.

While it is still too early to gauge the potential profitability of the enterprises, they do reflect the development of entrepreneurship at community level.

The concept of community contracting has created a new way of looking at urban service delivery. It has made the poor communities in peri-urban areas view life more positively, and instilled in them the feeling of belonging to the municipal administrative machinery.

The SLP involved a large number of development partners in the process. Some stakeholders have incorporated SLP participatory methodologies and processes into their own strategies and approaches in the urban sector, particularly bottom-up community consultations and participation, stakeholder interaction, and community contracting. Assessments have established that the impact of the SLP on various NGOs has been significant. For example, various CARE programmes involved in community-based activities were shown to be sharing a number of activities with SLP. The SLP has provided a valuable interface for NGO-donor-LCC contact, which is a positive area of development interaction.

Constraints and barriers
During the assessment of the relative preparedness of the participants to manage a CBE it was shown that the training did not fully prepare the CBE members for the challenges of managing a CBE in a hostile economic environment. This is evident in the relatively high drop-out rate, the low operating capacity of the CBEs, and the fact that some CBEs are struggling to make ends meet.

A number of external factors continue to hinder the development of CBEs. At the institutional level, limited capacity within the City Council is a major constraint. Resource constraints and work pressures often make it difficult for LCC staff to find the time to visit CBEs. In addition, rigid procedures and resource constraints affect the CBE/LCC working relationship. As a result, the CBEs and the LCC are ‘unwilling partners’ in the environmental development process.

Political interference and conflicting agenda’s of the CBE’s and local politician within the settlements have undermined progress in some cases. The CBEs confidence is gravely undermined where and when local politicians ‘interfere’ with CBE initiatives for their own political gain. In one settlement, local politicians dismantled the midden box and reallocated the land to marketers. This action caused the CBE to lose business and reinforced the growing suspicion between the CBEs, and the councillors.

Other barriers to the successful operation of CBEs include a number of second-generation problems such as the lack of secondary transportation of solid waste, thus hindering the development of solid waste CBEs. With regard to water enterprises, the issue of insecurity to water rights and assets was identified as a key constraint. This insecurity inhibits investment in new facilities, and encourages short-term thinking and behaviour on the part of CBE members.

“The training and the promises made were not matched as the council did not implement what they had promised. This has messed up our programme and our chances for making money.”
(A member of the Kamanga’s Samalila Ukhondo CBE.)

The lessons learned
The ILO/SLP training programme generated a wealth of important and interesting experiences, and a number of important lessons can be drawn from the training experience.

- CBEs must be realistic about economic and institutional prospects;
- In the current environment, complete self-reliance and sustainability of CBEs are impractical targets;
- The absence of an official policy on CBEs gives little or no incentive to Government agencies to enthusiastically continue with the training process;
- Second-generation problems have made themselves manifest and have tended to reduce the magnitude of the potential training benefits;
- In the process of introducing CBE-training, political will at the highest and lowest levels is a critical prerequisite for CBE training to be sustainable;
- A suitable and enforced legal framework, including appropriate bylaws, is necessary for the sustainable functioning of the solid waste and the water enterprises;

continued on page 20
The sustainability of employment-intensive (EI) approaches – a key to improving the livelihood of the poor

By the ASIST-Africa Team, Zimbabwe

Introduction
History has shown that labour-based methods of work have long been used in creating remarkable infrastructure works. The Great Pyramids of Egypt, the rock-hewn churches of Lalibela in Ethiopia, and the Great Wall of China are but some of the unique works around the globe that have been built by hand. Their quality speaks for itself – these structures are still in remarkable condition and attract huge interest from professionals the world over.

Recent years have seen an increasing use of employment-intensive approaches in the construction and maintenance of infrastructure assets. The approach has been recognised as a viable means for creating sustainable infrastructure assets and, at the same time, creating jobs and in so doing impacting on poverty reduction. For many governments in developing countries that face constrained resources and growing demands for infrastructure, services, and employment, this approach is a viable alternative to equipment-based infrastructure provision. Particularly as they now see employment creation as a fundamental element in their poverty reduction strategies.

Governments and beneficiary communities alike talk highly of the employment-intensive approach and the benefits accruing from its application, while researchers and other professionals have documented its successful application and positive impact on the livelihood of the poor. This then begs the questions; if this approach results in such positive results, why have most developing countries failed to sustain its use? Why are employment-intensive approaches still not considered as ‘the’ primary means of delivering infrastructure assets and services?

Past experience indicates that insufficient attention has been paid to issues of institutionalisation and the monitoring of the approach. As a result the use of the approach and its impact have not been sustained. We do not claim to know the all answers and more work on the barriers to sustained use and impact of employment-intensive approaches still needs to be done. However, we have learned that the commitment, support, and participation of all stakeholders including government, beneficiary communities, practitioners, the private sector, and learning institutions as well as workers is essential.

In this centre-fold we have sought to list what we feel are the essential ingredients for establishing and sustaining the application and impact of employment-intensive approaches.

Further reading

1. Supportive Policy and Legislative Environment
- Develop home-grown policies through consultation of all stakeholders. Policy development must be driven by the countries themselves and not be imposed by donor considerations. Such policies should:
  - Be responsive to grass root priorities and balance national and regional needs, in terms of growth, economic and social objectives
  - Promote local resource utilisation
  - Establish sustainable mechanisms for resource allocation to achieve policy objectives;
  - Create an enabling legislative environment to support the implementation of the policies;
  - Develop tools to support the implementation of the policy, for example procurement that favours the involvement of local small contractors, and the achievement of social objectives such as employment creation, etc.;
  - Develop tools, indicators, and mechanisms that monitor and inform implementation and further policy development;
Examples of African Experience

In the early to mid-70s, Kenya, Lesotho, and Malawi, with the assistance of various development and international financial institutions, started using employment-intensive approaches in the maintenance and improvement of infrastructure. Until the early nineties good progress was achieved in developing working methodologies, standards of work, reporting and monitoring tools, capacity-building, and, to some extent, institutional setup. Among the nationwide programmes implemented in these countries were the Rural Access Roads Programme (RARP) (Kenya) and Minor Roads Programme (MRP) (Kenya), the Labour Construction Unit (LCU) (Lesotho), and the District Roads Improvement Unit (DRIMP). The question is: After over thirty years of experience, how far have these countries developed employment-intensive approaches?

With the withdrawal of donor assistance and their changing political environments, little progress has been achieved in Kenya and Malawi since the early to mid-90s. The knowledge base for EI approaches is currently very thin in Kenya and Malawi and capacity-building and institutional development will have to be restarted before any nationwide programmes can be developed. The previous programmes did not take the institutional setup or capacity seriously nor did they have the necessary government commitment to make the EI approach home-grown.

In Lesotho, however, the programme is undergoing continuous transformation in order to address the issues at hand. In late 80s, the Government adopted a policy that promoted the extensive use of local resources in all sectors and gave its commitment by both establishing a new institution that promotes the application of EI approaches and allocating resources on an increasing scale (both recurrent and capital). Planning and prioritisation tools for rural roads have been refined to include social issues, local needs, and a long-term government development plan. Since the early 90s the Government’s contribution (in a form of recurrent and capital budget) has increased more than ten-fold.

Further reading


2. Adequate Technical Knowledge and Skills

> Assess, identify, and address capacity constraints at all levels and for all stakeholders, including managers and engineers of works, supervisors, contractors, and workers;
> Establish capacity-building capability to ensure continued development of required capacity;
> Ensure that knowledge and experience are captured through regular monitoring and impact assessment, and documentation, to inform policy and planning, and improve implementation from lessons learnt;
> Institutionalise and disseminate lessons learnt and best practices;
> Carry out advocacy and promotion using the media and influential stakeholders at all levels;
> Involve existing networks and institutions that are focused on knowledge-sharing in dissemination;
> Carry out research and development and/or partner with private sector and institutions of higher learning to advance knowledge and practice.

Further reading


3. Appropriate Planning Systems in Place

- Effective and sustainable development must be owned and driven by the needs and objectives of the beneficiaries;
- Develop and adopt participatory local-level investment planning approaches and build the relevant capacity at all levels to support these systems;
- Planning strategies should be cognisant of cross-sectoral needs and establish the appropriate cross linkages.

4. Appropriate Technical Standards and Procedures

- Maximise the use of techniques that optimise the use of locally available and economically beneficial resources;
- Develop and apply standards of design and construction tailored to actual needs;
- Institute environmental protection measures;
- Establish operation and maintenance systems and develop the relevant capacity at all levels.

**Further reading**


IT Transport. 1999. Local level planning and investment prioritisation, IT Transport.


**APPROPRIATE ENGINEERING STANDARDS**

A study into appropriate engineering standards for low volume roads constructed using labour-based methods is currently underway. This will result in a set of guidelines and enable life cycle costing using appropriate empirical deterioration relationships. The study is to be carried out in six countries with different climatic, geological, topographic properties, etc.

**IRAP – A LOCAL-LEVEL PLANNING TOOL**

Local-level investment planning is an important undertaking in ensuring that investment decisions are made by target beneficiaries at local level and that resources are allocated efficiently.

The Integrated Rural Accessibility Planning (IRAP) tool was designed for this very purpose, and uses a ‘bottom-up’ participatory approach that involves communities at the different stages of the planning process. IRAP offers a multi-sectoral and integrated planning approach that addresses interventions that enhance rural people’s access to social and economic needs, in line with the context of integrated rural development. Integration is across both sectors and within the local-level planning system within the districts. The tool fits well within a decentralised environment as it enhances the process through capacity and skills development at a local level.

The pace of adoption of the IRAP approach in African countries has been slow. This is partly due to the unfavourable institutional environment at local level prior to the start of decentralisation reforms in late 90s, when capacities for planning and implementation were minimal. On the other hand, the lack of interest and understanding of the essence of consistent planning at local level has hindered adoption, as the process is seen as time-consuming and thus not politically attractive. This constraint can only be addressed through awareness creation, while at the same time exploring flexibility on the use of the tool, taking into account specific local contexts. Further work is required to strengthen the link between IRAP and local economic development approaches. This will facilitate the closer alignment of local level planning with the real needs of the poor, and thereby have a greater impact on poverty alleviation at grassroots level.

Research: Labour-based surfacing trials in Mozambique, 2002
5. Partnerships for Implementation

- Explore innovative ways to address implementation constraints by using, for example, private sector initiatives and public-private partnerships and cooperative structures.

Cities partner with communities

Cities and their authorities are facing tremendous problems in providing a decent living and working environment due to financial weakness and their lack of capacity for appropriate policy formulation and implementation. However, the combination of labour-based methods and community participation can help improve service delivery. At the same time it presents many advantages in terms of community empowerment, job creation, and income generation, as well as capacity-building and partnership development.

For example, Maseru City Council, Lesotho has been unable to meet its responsibilities and properly address the expanding and grave challenge of urban unemployment in the city. The City has therefore embarked on an approach allowing for community involvement right from the beginning. Projects are formulated around prioritised needs, focusing on the use of labour-based approaches and the involvement of the communities. This has helped the City to better respond to actual needs while at the same time creating employment opportunities for the most needy. It also engenders community empowerment and ownership. With this new sense of belonging to the city, the approach is likely to have a positive impact on sustainability of community infrastructure and services.

- Define roles and responsibilities of partners clearly and ensure partners have the requisite capacity to play their respective role.

Community contracts

Roles and responsibilities can be established through a community contract. This contract approach is based on partnership relationships and is achieved through a process of negotiations that arrive at a contract that is satisfactory and feasible for all parties. The negotiations between public administration and community groups strengthens the social position of the target groups in the informal sector and is also likely to strengthen the collective capacities of the poor to act as partners in development. The negotiations address and build on the issue of cost-sharing, which includes the labour inputs of the project.

Further reading


6. Decent Work

- Create awareness of decent working conditions and standards for all stakeholders, from policy-makers and planners to implementers, contractors, and workers;
- Incorporate into procurement procedures social clauses that ensure decent working conditions and standards;
- Develop and establish systems to monitor and ensure good working conditions and standards;
- Work and strengthen tripartite structures to enable dialogue and articulation of obligations and rights.

Code of good practice in South Africa

The Government of South Africa has recently adopted a Code of Good Practice that applies to special public works projects targeted at poverty alleviation and the reduction of unemployment. The Code aims at regulating and standardising the conditions of work and the remuneration of workers. With the view of having the support of all role players, the Code was extensively consulted and discussed among the tripartite partners before it was gazetted.

Basic conditions of employment act, 1997 – Code of good practice for employment and conditions of work for Special Public Works Programmes. Government Gazette South Africa

Further reading

The last six months have been filled with developments on new and existing activities. The following highlights some of the activities in the different countries covered by ASIST and those covered jointly with the ILO Sub-Regional Office (SRO), Addis Ababa, Ethiopia.

In March, a mid-term review of the Programme was held in Polokwane, South Africa, wherein the team presented and discussed the achievements of this phase, which started in July 2001, with partner representatives from governments, collaborating agencies, and the ASIST donors. The review process allowed an in-depth review of the way in which ASIST works, its success in meeting its objectives, its shortcomings and how these can be addressed. Overall, the process validated the current focus of the Programme but highlighted the need to reassess the Programme’s niche and strengthen partnerships with other stakeholders in the development process in order to increase impact and sustainability of its work.

**Ethiopia**

**Technical Assistance Project:** The Government of Ethiopia, with funding from the World Bank, is implementing an Emergency Recovery Programme (ERP) to reinstate infrastructure destroyed and damaged during the war with Eritrea. The two-year Programme will involve the emergency improvement of rural roads in the Tigray region. In March 2003, the ILO was commissioned to provide consultancy services for the construction supervision of approximately 500 kilometres of rural roads. The ILO will also train and build the capacity of the staff of government and local private contractors.

**Urban Upgrading Works:** At the request of the Amhara regional government, the ILO (ASIST and SRO-Addis) provided technical assistance for the formulation of a programme document that recommends the adoption of the use of labour-based approach in the provision of infrastructure in the urban sector.

**Ghana**

Under the auspices of the decent work pilot project initiatives managed by the National Policy Group in Geneva, a study is being commissioned to review relevant Government policies, strategies, and procurement procedures, and to identify barriers to the participation of small and medium-sized enterprises using labour-based methods in infrastructure development.

The document will propose ways of (i) maximising the employment and poverty reduction benefits from the procurement of infrastructure projects, and (ii) ensuring adherence to relevant Ghana labour legislation and the application of decent working conditions for the workers employed on such projects.

SRO-Addis is providing technical support to the consultant preparing the brief to be presented to Ghana Cabinet Ministers on policy recommendations.

**Kenya**

ASIST-Africa and the United Nations Development Programme (UNDP) in Kenya are discussing and identifying possible interventions to assist the newly-elected Government of Kenya meet its new formidable
target of creating 5000,000 jobs a year. The interventions will involve an increased use of employment-intensive approaches and local resources for infrastructure delivery.

Mozambique

ASIST-Africa is managing a cost comparison study on behalf of the National Roads Administration (ANE). This study is comparing the financial and economic costs of labour-based and equipment-based road construction and maintenance. Preliminary findings are consistent with those of previous studies, i.e. that the labour-based approach costs less, creates more jobs, and results in more significant foreign exchange savings than equipment-based approaches. Furthermore, the labour-based approach results in more economic benefits by, for example, stimulating the local economy, as well as a more equitable distribution of wealth.

Tanzania

Programme Document on Taking LBT to scale: SRO-Addis and ASIST have facilitated the preparation of a programme document for the establishment of a National Framework for Labour-Based Technology. The programme, prepared under the auspices of the Ministry of Works, is intended to support the widespread adoption of Labour-Based Technology (LBT) and proposes the setting up of a national focal centre/point for LBT that will spearhead all coordination, linkages, and relations as well as information/data collection and dissemination to all stakeholders.

Macro-economic study: A study on the macro-economic potential of labour-based has been jointly initiated by the SRO-Addis, ASIST, the ILO Area Office in Dar es Salaam, and EMP/INVEST. The desk study entails carrying out a comparative analysis of a number of ongoing and completed feeder roads projects in Tanzania using different technologies (both labour-based and equipment-based methods) in order to show the macro-economic impact on the Gross Domestic Product, the balance of payments, and the employment situation.

Working conditions study: A study into working conditions and a review of procurement issues for small solid waste collection franchisees in Dar es Salaam were carried out in March to inform future support of the creation of decent jobs through urban service delivery.

Training needs assessment: A needs assessment for a joint ILO-UNHABITAT national training programme on ‘Better services and More Jobs’ has commenced, in collaboration with the Association of Local Authorities in Tanzania (ALAT), the President’s Office, Regional Administration, and Local Government. This builds on the pilot sub-regional workshop that was held in Nairobi in October 2002.

South Africa

The Government of South Africa has initiated an Extended Public Works Programme (EPWP). This will provide essential services and infrastructure to disadvantaged communities, develop the skills of the unemployed, and create the much needed employment by making appropriate technology choices. ASIST-Africa and the ILO Office in Pretoria assisted in the design and preparation of the implementation strategy.

Staff News

It is with deep regret that we inform you of the death of Mr Elias Madondo. Elias joined ASIST-Africa in May 2000 and was based in Harare as the Programme Officer. He died after a short illness and is survived by his wife and daughter. Elias will be missed for his contribution to the programme planning, monitoring and reporting, and for his great sense of humour.

On a happier note, since our last issue Mrs Phillipa Tsiga, our Programme Administrator, became the proud mother of a second baby daughter.
Cambodia

The Asian Development Bank (ADB) funded Northern Regional Development Project component on IRAP that is being implemented by the ILO is now fully operational.

With support from ILO Headquarters in Geneva, the component of the preparatory work entrusted to the ILO for the World Bank’s Provincial Rural Infrastructure Project has been successfully completed.

India

ASIST – AP staff have recently been to Madhya Pradesh to discuss with State Government officials how to could support them in the implementation of the PMGSY, a huge, nationwide rural road programme. It was agreed that ASIST would provide specialist assistance in the area of road maintenance. The programme will result in both longer-term employment and job opportunities for local contractors. As a prelude for the development of appropriate tools and procedures for use at the District level, an initial assessment survey will be carried out in September 2003.

Further discussion with the Ministry of Rural Development in Delhi regarding the development of this programme in Madhya Pradesh is underway, and it is expected that it will be replicated in other states, in collaboration with the World Bank and the ADB.

Indonesia

The Government of Indonesia and ASIST – AP have jointly developed the Sustainable Rural Infrastructure Demonstration Project (SRIDP). The project has been designed to work at two levels. At local level, it demonstrates procedures for local-level infrastructure planning, implementation, and maintenance, making an optimum use of local resources. At national level, it works with the inter-agency Co-ordinating Team for Rural Infrastructure Development (CTRID) to develop policies, strategies, and programmes based on the experiences gained. SRIDP will also develop country-specific guidelines and build capacity for their use in the province of East Nusa Tenggara.

Funded by the Central and Local Governments, ASIST – AP and the World Bank, project activities started in May 2003 and will be completed by mid-2004. A national team of five consultants will implement activities in the technical fields of Integrated Rural Accessibility Planning (IRAP), labour-based technology, small-scale contracting, rural infrastructure maintenance, and local economic development. ASIST – AP will provide technical backstopping to this initiative.

Laos

ASIST – AP continues to support the rural road component of the ADB-funded Shifting Cultivation Stabilisation Project in Houaphan Province.

Two contracts have been given and work is progressing well. ASIST – AP is supporting the local authorities in the supervision of works and providing the contractors with technical advice.

As a parallel activity, a poverty impact study has been initiated. A baseline survey has already been completed in the area of influence of the roads.

ASIST – AP recently become involved in the detailed formulation of the infrastructure component of the Smallholder Development Project, which is expected to commence this year. As part of the preparations for this project, the ADB requested ASIST – AP to assess the feasibility of applying labour-based work methods for the construction of provincial and district roads in Savannakhet and Champasack Provinces. Under the terms of the loan agreement, ASIST – AP is the only body sourced by the Government to provide technical assistance for the implementation of the labour-based small contractor rehabilitation of roads.
ASIST – AP staff recently attended a national workshop on rural road maintenance and gave a presentation. As a result, the ILO has agreed to finance a review of current practices on road maintenance in Laos. ASIST – AP and the Government are together formulating the terms of reference for a study on the appropriate maintenance practices in Laos, which will be carried out in collaboration with the World Bank.

**Myanmar**

As part of the development of the plan of action against forced labour, ASIST – AP were asked to design a demonstration programme of rural road rehabilitation in Myelik District, in the south of Myanmar. The aims are to illustrate that labour-based methods are both technically and economically effective and demonstrate that paid labour produces higher quality outputs compared with the present obligatory unpaid system. A visit has been made and an outline project prepared. However, recent events have put this project on hold.

**Nepal**

The local-level Infrastructure Planning (IRAP) demonstration project with the Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR) was recently completed and IRAP guidelines are now available in Nepali and English. Discussions with a number of rural infrastructure programmes on the integration of IRAP procedures are ongoing.

ASIST – AP has facilitated training on labour-based technology in connection with the World Bank’s Rural Infrastructure Project (RIP). The training was well received and is likely to be integrated as a special component in the second phase of RIP. In addition, the World Bank has asked ASIST – AP to assist selected districts in their application of IRAP to identify rural infrastructure priorities to be considered under RIP2.

ASIST – AP supported the recent UN Needs Assessment Team in identifying the needs of crisis-affected districts in western Nepal. Employment-intensive infrastructure has emerged as an important component in the follow-up project now being finalized. UNDP is likely to provide support to ILO to assist in the implementation of the follow-up UN Peace-Building Project.

John van Rijn, an ASIST – AP technical expert, was transferred to Kathmandu in May this year and is working in the ILO office as the ASIST – AP focal point, for an initial period of one year.

**Philippines**

Work has started on the implementation of the support services to be provided to the INFRES project, a major ADB-supported rural infrastructure programme covering 40 Provinces countrywide. The Government has earmarked part of the loan funds from ADB for the provision of ASIST – AP services.

Initial activities involve the validation of sub-project proposals emanating from local government authorities through the IRAP process and the provision of advisory support to local governments on labour-based aspects of the development of ‘farm to market’ road projects. ASIST – AP input will cover a period of three years, during which time we expect to provide technical support in the fields of IRAP, labour-based equipment-supported methods, small-contracting, and maintenance.

**Solomon Islands**

The Japan-funded Community Infrastructure Rehabilitation Project (CIRP) commenced in May and is being executed by UNDP with ILO technical assistance. The project works with crisis-affected communities and individuals to rehabilitate rural infrastructure using labour-based technology. CIRP will oversee the rehabilitation of rural roads, schools, water supplies, community buildings and sport fields. It also includes a maintenance component and will develop a length-man system on the islands. Mukesh Gupta is the ILO Chief Technical Adviser (CTA) on the project.

**Sri Lanka**

Work has continued on defining training needs for the reconstruction of infrastructure in the North and East following the cease-fire and peace talks. Collaboration is being developed with DFID, the World Bank, and the ADB.

**Vietnam**

The Severe Acute Respiratory Syndrome (SARS) epidemic has seriously curtailed the work with the World Bank on small contractor development. However, it is intended that work will soon resume. In addition, a demonstration of the use of IRAP in two Provinces has been commissioned through the Centre for Rural Planning and Development.

**Regional**

Bjorn Johannessen attended the C20 sub-committee of the World Road Association (PIARC), in Colombo and Geoff Edmonds attended the International Focus Group on rural roads, which also met in Colombo.

ASIST – AP has recently produced three interesting publications on IRAP, capacity-building at local level, and the comparison of labour- and equipment-based methods in Cambodia – details are provided in the New Publications section of this Bulletin.

**Senior Japanese Vice Foreign Affairs Minister inspects works on the UNDP/ ILO labour-based roads project funded by the Japanese Government in the Solomon Islands.**
The EIIP programme in Latin America has implemented a wide range of activities over the past six months, especially in the Andes countries and Central America. These activities have primarily taken place within the context of the two DANIDA-funded EIIP projects in Bolivia, Ecuador, and Peru and the Pro-Empleo project in Nicaragua, funded by Luxemburg. In all three Andes countries, the two projects have warranted the recruitment of (temporary) co-ordinators: Emilio Salomon for Peru and overall co-ordination, Jorge Viteri in Ecuador, and Edna Guidi in Bolivia. The focus in these countries has been on the training of national counterparts, the execution of studies, and the translation and adaptation of EIIP documents. In Nicaragua, various studies and capacity-building at different levels have been undertaken, whilst the number of local infrastructure projects receiving technical assistance from the project has continued to increase.

Bolivia
An EIIP mission to Bolivia in April resulted in the identification of various fields of action and counterparts, especially as employment generation in infrastructural works is very much a focus topic in the country. As the Government is in transition, the identified activities will need to be followed up with the new Ministers and Directors.

Ecuador
An EIIP mission to Ecuador in April resulted in a list of requests for technical assistance from country counterparts. Two ‘training of trainers’ courses were conducted in relation to Improve Your Construction Business (IYCB) and Strengthening Small and Medium Enterprises and their Co-operatives and Associations (SSMECA) with the Social Investment Fund (FISE)¹, which recently entered its third phase. These courses will be replicated for the small enterprises and communities that are to be contracted by FISE, and a further training course is foreseen on labour policies and practices. The EIIP programme is also supporting the organisation of a workshop for the Social Funds of the three Andes countries, which will be hosted by FISE. Furthermore, an IRAP² pilot project for execution with FISE is under preparation.

The IYCB and SSMECA courses were also conducted for the staff of PRODEPINE³, a programme for the development of indigenous and black communities in Ecuador that executes small, community-based infrastructure projects. A study is being carried out with the Rural Roads Programme UCV⁴ on the impact and sustainability of the road maintenance enterprises, and will subsequently serve as input for the expansion of the UCV programme in its next phase. This study is part of a series of similar studies being conducted in all three Andes countries.

Guatemala
The EIIP Programme provided input to the development of a Rural Road Strategy in Guatemala, as part of a World Bank-financed rural roads project. The main focus of this input was to promote the inclusion of non-motorised means of transport and non-road transport infrastructure in the country strategy.

Honduras
In the follow-up to an EIIP mission last year, the ILO has been requested to provide technical assistance to the national road maintenance programme and to an urban road improvement programme to be executed by the Ministry of Public Works (SOFTRAVI⁵). A formulation mission will be carried out shortly.

Nicaragua

The Pro-Empleo project in Nicaragua has executed studies on SMEs access to the national public procurement system and on the legal organisational modalities available to them, as well as a series of impact studies for previously assisted labour-based housing and road projects.

A one-day seminar was held with national counterparts and donors on ‘Labour- and Local Resource-based Technology’ in order to increase awareness and support. A great variety of technical and entrepreneurial training courses were undertaken with local enterprises, municipal governments, and local projects, some with support

¹ Fondo de Inversión Social de Emergencia.
² Integrated Rural Access Planning.
³ Programa de Desarrollo de Pueblos Indígenas y Negros.
⁴ Unidad de Caminos Vecinales.
⁵ Secretaría de Obras Públicas, Transporte y Vivienda.
In Peru, the EIIP programme is co-operating with the Peruvian Social Fund (FONCODES) on the aspect of asset sustainability, building on its vast experience in community contracting. A study to determine how the execution by community-based organisations can be complemented by subsequent maintenance activities using local enterprises is to be conducted. In addition, a manual for the promotion of road maintenance enterprises is currently being adapted for application in other sectors. A ‘training of trainers’ course on ‘Improve Your Construction Business’ (IYCB) is also foreseen, which will be replicated with the ‘Operadores’ that provide technical support and supervision in community works.

Also planned is a study on the impact and sustainability of road maintenance enterprises using the Road Programmes responsible for secondary and rural roads (PROVIAS Departamental and Rural).

Influencing mainstream investments

By Terje Tessem, ILO EMP/INVEST, Switzerland

The main objective of the Employment-Intensive Investment Programme (EIIP) is to impact on the way mainstream infrastructure investment funds are allocated and spent. The Programme seeks to influence issues such as who benefits from the infrastructure, what type of infrastructure is prioritised and how different infrastructure is created. To ensure impact on a large scale, it is necessary to influence mainstream budget allocations, as well as individual development projects.

Moreover, as in many developing countries the grants and loans from development banks form an important part of the investments available to the governments, influencing these investments is also a major aim of the EIIP.

The Programme has recently made good progress with some development banks. The partnership with the World Bank managed Sub Saharan Africa Transport Programme (SSATP) resulted in some major contributions to the reforms in the transport sector. The work described in the last issue of this Bulletin on the Country Procurement Assessment Review in Ghana, which was carried out with the World Bank provided an opportunity to influence the outcome. More recently, we have been collaborating with the Procurement Policy and Services Group of the World Bank on the modalities for contracting with communities. Following a World Bank – ILO workshop on the subject last year, in which 200 World Bank officials and international and national experts participated, the first training workshop on “Fiduciary Management of Community Driven Development projects” is going to be held in Uganda this October. The International Training Centre (ITC) in Turin is coordinating this work and several EIIP colleagues have been involved in the development of the training material. Such collaborative efforts provide major entry points to address the EIIP concerns regarding employment creation and labour standards in the construction and maintenance of infrastructure.

At the project level, the EIIP has been contracted by the World Bank to work with the Governments of Afghanistan, Cambodia, Congo Brazzaville, Ethiopia, and Indonesia. The EIIP is also involved in the design of World Bank Programmes in Nepal and Vietnam. Previous work in Madagascar, Mozambique, Tanzania and Zambia continues to have impact on the way in which World Bank-funded programmes are designed even without the direct involvement of the ILO.

Of similar importance is the work being carried out with regional development banks, such as the Asian Development Bank (ADB). ASIST Asia-Pacific has been asked to be a partner in the screening of new infrastructure projects under the trust funds for poverty reduction provided by DFID, and the Dutch and Japanese Governments. Furthermore, projects are currently being undertaken in Cambodia, Laos, and the Philippines with funds provided through the ADB.

The magnitude of investments in each of the above mentioned programmes is in the order of tens of millions of dollars; e.g. 16 million USD per year for maintenance in Cambodia; 50 million USD in Congo and Madagascar and 150 million USD in Indonesia and the Philippines for investments. Obviously, this provides the ILO with an enormous opportunity to achieve structural and lasting impact on employment generation and poverty reduction. These developments also prove the relevance of the EIIP approach and tools to the banks in their quest for better impact on poverty reduction from their development programmes.

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6 Instituto Nacional Técnologico.
7 Fondo de Inversión Social de Emergencia.
8 Fondo Nacional de Compensación y Desarrollo Social.

1 Employment-Intensive Investment Branch
However, the EIIP has not been very successful in collaborating at a similar level with the other regional development banks. Past attempts in Africa have met with a fairly lukewarm reception from the African Development Bank (AfDB); and while the reasons for this can be multiple, we should ask ourselves why the AfDB has continued funding traditional approaches to investment projects when there is a great deal of evidence that major changes in both investments targets and the mode of delivery are required. Yet there are recent indications that the position of the AfDB is changing. For instance, the inclusion of the EIIP/ASIST – Africa on a recent mission to Namibia could mark the beginning of a wider partnership. On the other hand, the Development Bank of Southern Africa has entered into a serious collaboration with the EIIP through ASIST – Africa on a number of issues, including the assessment and follow-up to the Targeted Procurement work in South Africa.

In Latin America, EIIP policies and strategies are principally promoted through project work and workshops. An understanding has yet to be reached with the Inter-American Development Bank (IADB) on the role that the EIIP approach might play in helping countries fight the very high unemployment rates and inequalities in access to productive and social infrastructure. However, rest assured that, we will continue to make efforts to achieve a breakthrough with the IADB!

Projects with bilateral donors have often been implemented outside regular government budgets, even though these projects provide an excellent opportunity to demonstrate best practices. Through these projects, operational aspects are developed and the possible impact on policy proven, thus support from bilateral donors remains an important vehicle in initiating activities. Experience has shown that the successful outcomes of these projects are being replicated by mainstream investment programmes, either through regular government funds or resources provided by development banks.

The EIIP uses the opportunities described herein to achieve its higher level objectives of influencing mainstream activities, and providing structural changes and sustainable solutions to infrastructure investments in developing countries. The Poverty Reduction Strategy Papers (PRSPs) promoted by the World Bank and the Millennium Development Goals of the UN and its member countries set out bold objectives for the reduction of poverty throughout the world. However achieving these objectives very much depends on their willingness to make serious changes to development approaches using tools, such as the employment-intensive investment approach, in mainstream investments.

**Labour-based roadworks manuals on CD ROM**

**Labour based roadworks technical manual. Volume 1 – 3**

International Labour Organisation; Intech Associates – Consulting Engineers

Appropriated Technology Unit (ATU) Ministry of Works, Tanzania. 1997

These technical manuals published in 1997 set out guidelines for the techniques and procedures to be used for labour-based roadworks in Tanzania. The manual describes in detail the organisation and techniques required for the rehabilitation, maintenance and spot improvement of roads using labour-based techniques. The manual:

- Sets out guidelines on policy and recommended standards on technical matters;
- Describes technical procedures;
- Gives guidance on planning, organising and control of the road rehabilitation, maintenance and spot improvement work.

The manual is aimed primarily at Road Engineers, Planners and Managers involved with the development of labour-based road maintenance and improvement methods. However its format has been designed so that modules or pages may be incorporated in training material. This CD comprises of three volumes of the manual:

**Volume 1:** This volume of the manual covers technical and management aspects of road rehabilitation works. It provides an introduction and rationale for labour based roadworks in Tanzania. The manual sets out the design standards for labour based roadworks. It describes the techniques, planning and organisation of the various components of the works including, earthworks, drainage, erosion protection, structures, and surfacing for paved and unpaved roads.

**Volume 2:** This volume covers technical and management aspects of road maintenance. It provides an introduction to road maintenance and the rationale for using labour based methods in Tanzania. The manual describes the various emergency, routine, and periodic maintenance operations and the options for organising the works. It also provides practical guidelines on selected maintenance management issues.

**Volume 3:** This volume covers designs and specifications of the important items commonly used in labour-based roadworks. These include accommodation and site facilities, handtools, control and setting out tools, and a range of intermediate items. Standard designs for culverts and road signs are also included. It is intended that these design and specifications will encourage local fabrication or manufacture to facilitate cost-effective ownership by local contractors, road authorities and others engaged in roadworks.

The CD is available from: The Roads Department, Ministry of Works, Tanzania, PO Box 9423, Dar es Salaam, Tanzania. Email: atu@mow.go.tz.
Improving access in rural areas – Guidelines for Integrated Rural Accessibility Planning

Chris Donneges


This A5-size book introduces the Integrated Rural Accessibility Planning (IRAP) approach.

Everybody, man or woman, rich or poor, urban or rural, farmer or trader, needs physical access to locations and facilities where they can avail themselves of the goods, information, and services they require. Access is hereby defined as the ability (i.e. the relative level of difficulty) to reach facilities and locations to use or obtain goods, information, or services. A lack of access limits the opportunity one has to improve and sustain one’s social and economic well-being. Improved access and poverty reduction are correlated; lack of access is perceived as one of the main underlying factors of poverty, particularly in rural areas in developing countries.

This book details the different steps of the generic IRAP approach. IRAP simultaneously seeks to improve rural transport systems and the distribution of and access to facilities and services in a cost-effective manner. The book introduces a set of generic IRAP planning tools that are based on the access needs of rural people and seeks to maximize the use of local resources. Local planners should, as part of their routine planning activities, make use of these tools when defining priorities for different sectors and communities. The IRAP process enables the planner to quickly assess what should be done where and to identify rural infrastructure priorities.

The book first provides a brief overview of the concept of accessibility and the general IRAP approach. Then provides generic guidelines for developing an IRAP approach at local government level, based on extensive experience of IRAP application in a number of Asian countries. It can be used to develop country-specific guidelines. The final chapter gives insights on participatory rural access planning at village level.

Integrated Rural Accessibility Planning (IRAP) Modular Training Package

Serge Cartier van Dissel


IRAP is a planning tool for local level planning and prioritisation for rural investment. It is an easy-to-use cross-sectoral planning tool, which seeks to optimise the use of local resources available. The modular training package is meant for use by trainers carrying out training of local-level planners and other local government staff involved in rural investment planning and implementation. Its modular format is designed to facilitate step-by-step training for each step of the IRAP tool. The package should be used as a guide and built upon and adapted to suit the local circumstances.

Building local government capacity for rural infrastructure works

Geoff Edmonds and Bjørn Johannessen


Decentralising responsibility for the provision and maintenance of infrastructure is a growing trend. Although the degree and form of such initiatives vary, the rationale is usually to enhance localised participation, enhance the sense of ownership, and generally improve efficiency in planning and implementation. The provision of rural infrastructure often consists of a large number of comparatively small investments over a geographically large area. Having the appropriate management tools and sufficient resources puts local authorities in a good position to effectively plan and supervise rural infrastructure works. The nature of these works offers significant potential for the use of local resources, including small- and medium-sized contractors, builders, labour, and materials.

This publication discusses the sustainable provision of rural
infrastructure in a decentralised government structure with the involvement of the local private sector. Rather than describing the virtues of local governance, it outlines possible implementation arrangements as regards the construction and maintenance of rural infrastructure programmes of scale in developing countries. It covers all aspects of a development programme, from planning and identification, to works execution and maintenance. A general description of capacity-building requirements and design of training programmes for this purpose is also included.

The book is targeted at planners and senior management staff involved in design and implementation of rural infrastructure works, including senior government staff, project task managers and donors. Case studies from three countries demonstrate the viability of the systems recommended. The implementation strategies described follow the approaches applied by the ASIST – Asia Pacific in its programme of providing technical and managerial advisory support to infrastructure works programmes in the region.

**Jobs or machines: Comparative analysis of rural road work in Cambodia**

*Under final preparation by ILO/ASIST-Asia Pacific.*

The use of labour-based (LB) works technology has formed a central part of the delivery mechanism for reinstating rural access in Cambodia over the past decade. It has provided effective solutions for constructing and maintaining rural roads, in terms of both costs, quality, and time, while at the same time increasing employment opportunities in the rural areas.

For this technology to be widely applied and mainstreamed in the construction sector, it is necessary to demonstrate its outputs are competitive with those of conventional methods, which rely on the extensive use of heavy construction equipment. This study compares the costs and potential benefits of various implementation arrangements and the choice of technology for rural road rehabilitation and maintenance, as applied in various recent projects in Cambodia.

The study examines the results of a number of projects in which different implementation modalities were chosen, including force account operations, the involvement of local contractors, the use of equipment, as well as the application of LB methods supported with light construction equipment.

The appropriate technology brings with it additional benefits that relate to issues beyond the confines of the rural road sector. Through a careful choice of technology, it is possible to increase employment and cash earnings among people living in rural areas. Through appropriate contracting arrangements, the works can provide the local construction industry with increased market prospects. This study looks at such potentials as a result of the decision to mainstream the use of LB work methods carried out by local contractors for the provision of rural roads in Cambodia.

This study is the first of its kind for many years to use primary data to assess the cost effectiveness of LB equipment-supported methods of road construction. It clearly shows that investing in LB methods is just as financially viable as investing in equipment. Given the additional social and economic benefits associated with LB methods, this is a significant conclusion, especially in the context of Cambodia. Of equal importance is the conclusion that the use of the private sector is more cost effective, regardless of the technology used.

**Improving access to information resources**

*By Angela Kabiru-Kang’ethe, ASIST-Africa, Zimbabwe*

In an effort to improve access to and dissemination of publications on and related to employment-intensive investment approaches, ASIST – Africa is collaborating with the Technology Transfer (T²) Centres in the region. With the support of the United States Federal Highway Administration (US FHWA), a number of T² Centres have been (or are being) established in a number of countries, including Botswana, Malawi, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe. These Centres aim at promoting transport technology and knowledge transfer within the region and beyond by means of information collection and dissemination, training, and networking activities. The T² Centres are valuable partners for ASIST in knowledge sharing and transfer. ASIST is providing the T² Centres with core collections of documents on and related to employment-intensive investment approaches for transport infrastructure. Each T² will provide access to these resources locally and will also gather and share relevant information and knowledge generated within their countries with ASIST and other T² Centres.

In Kenya, a needs assessment study has recently been completed on the Ministry of Local Government’s Urban Development Department (UDD), which had expressed interest in collaborating with ASIST to become a focal point for information and knowledge dissemination. The study revealed the need to develop the current UDD library, which serves the entire Ministry, into a national resource centre that gathers and disseminates all relevant information on both urban and rural development. With the Ministry and its partners, ASIST is to pursue how to take this further. Meanwhile, ASIST will provide modest support in areas related to developing the centre’s information management capacity.

In related initiatives, ASIST is building up information resources within partner institutions around the region. A number of institutions have been targeted and have been sent publications on and related to employment-intensive approaches to integrate into their collections and provide access locally.
Overseas Road Note 20

Management of rural road networks

By Simon Done, Transport Research Laboratory, UK

Rural road networks are vital for development, and particularly so for developing countries. Rural areas are home to large numbers of people, the farms that produce crops for consumption and export, and strategic sites such as power stations and border posts. However, as rural roads often receive less than their fair share of funding, they often fall into disrepair. As a result, communities become isolated and lose access to health centres, social support networks, and employment. Teachers and medical staff are unable reach the rural facilities where they work. Crops cannot be transported to markets and buying depots, and a much-needed income is lost. So, rural poverty grows and livelihoods become unsustainable.

To reverse this trend, money must be spent efficiently and the needs of the road users – farmers, villagers, traders and government officials – must be met. If carried out with other institutional improvements, good road management should secure a fairer proportion of the budget and allow a sustainable improvement road networks.

There are two distinct categories of rural roads.

Higher order roads. The dominant use of these roads is for economic purposes, and the level of traffic can normally justify sufficient funds to keep the roads in good condition under regular maintenance. Social activities take place on the back of this good condition. The road surfaces are often paved and roadwork activities are suited to large contractors and are normally carried out with mechanical plant.

Lower order roads. The dominant use of these roads is social, although economic activity will start up if access along the road is or becomes reliable. The low levels of traffic do not justify reasonable funding and as a consequence these roads are rarely maintained and often in poor condition with frequent loss of access. The road surfaces are normally unpaved and roadwork activities are suited to small contractors, community contractors, and lengthmen and can be carried out using labour-based methods.

ORN 20 has been written to guide the management of lower order roads. It covers a number of road management aspects, including those below, which are important to those managing low order roads with limited funding.

Consultation. Road management is more effective if the road manager involves road users, consultants, contractors, and others in planning and implementation decisions. Road users (the customers) have a personal interest in a well-managed road network, and the road industry (the suppliers) has skills to offer and a commercial interest in the work carried out.

Basic access. Frequently, a road user’s priority is safe and reliable access along many of their roads rather than the opportunity for fast travel along only a few. This is referred to as Basic Access and is achieved by repairing only those sites where access has been lost, is at risk, or is dangerous.

Prioritisation. Unfortunately, providing safe and reliable access on all roads may continue to require more money than is currently available. Thus, it may sometimes be necessary to prioritise roads, improving those found to be important, and leaving those less important until more money is available. ORN 20 provides several procedures for prioritising roads using social and economic criteria.

Safety engineering. One consequence of improving roads is an increased number of accidents. A road manager should carry out engineering measures to improve safety for all road users, including cyclists and pedestrians, and address issues such as education and enforcement of speed and alcohol limits.

Local contractors. It is possible to retain a local focus when carrying out roadworks. Locally-based contractors, whether commercial companies or community groups, provide employment for local people and are more likely to respond to their needs. A road manager should support local contractors wherever possible.

ORN 20 is available for distribution. Please contact:
Simon Done
TRL Limited
+44 (0) 1344 770168
sdone@trl.co.uk
## Forthcoming Events

<table>
<thead>
<tr>
<th>MINISTRY OF WORKS, THE UNITED REPUBLIC OF TANZANIA</th>
<th>Contact: Congress Secretariat Global Conferences Africa, PO Box 44503, Claremont, 7735 South Africa. For more information or online registration: <a href="http://www.wrc2003.com">http://www.wrc2003.com</a></th>
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<tr>
<td>In collaboration International Labour Organisation/Advisory Support Information Services and Training (ILO/ASIST – Africa)</td>
<td>ILO/ASIST – ASIA PACIFIC The Pro-poor Delivery of Rural Infrastructure Services: The Challenge of Decentralisation</td>
</tr>
<tr>
<td>Tenth Regional Seminar for Labour-based Practitioners Theme: Labour-based Technology for Poverty Reduction</td>
<td>Contact: Mr. Dazyledian Banda, PO Box 3030, Arusha, Tanzania. Tel: +255-57-83838/; Fax: +255-22-8285. Email: <a href="mailto:chimpunga@yahoo.com">chimpunga@yahoo.com</a></td>
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<tr>
<td>Dates: 13th – 17th October 2003 Venue: Arusha, Tanzania Fees: USD 590; For paper presenters and Tanzanian participants: USD 400</td>
<td>Details: The seminar seeks to collate and discuss the evidence base and investigate the true impact of labour-based technology on poverty and further identify key ways in which this impact can be maximised.</td>
</tr>
<tr>
<td>Contact: RegSemi 10 Organising Committee, Ministry of Works, PO Box 9423, Dar es Salaam, Tanzania. Tel: +255-22-213860; +255-22-2115539; Fax: +255-22-2138606. E-mail: <a href="mailto:atu@mow.go.tz">atu@mow.go.tz</a> ILO/ASIST – Africa, PO Box 210 Harare, Zimbabwe. Tel: +263-4-3698248; Fax: +263-4-369829 E-mail: <a href="mailto:asist@ilo.org">asist@ilo.org</a> <a href="mailto:asist@ilosamat.org.zw">asist@ilosamat.org.zw</a></td>
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<td>DETAILS ROAD ASSOCIATION (PIARC)</td>
<td>INTERNATIONAL TRAINING CENTRE OF THE ILO, TURIN (ITALY) Employment and Skills Development Programme In collaboration with the Employment Intensive-Investment (EMP/INVEST) Branch of the International Labour Office and the ILO/ASIST Programmes in Harare and Bangkok</td>
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<tr>
<td>Durban XXIInd World Road Congress Rural Travel and Transport Planning Programme</td>
<td>Details: The course seeks to contribute towards the adoption and effective implementation of national investment policies favouring the use of employment-intensive techniques for employment creation and poverty reduction. It is targeted at Government policy makers; small contract worker and employer associations; tertiary education providers, managers of development programmes.</td>
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<tr>
<td>Details: The workshop is aimed at senior government officials; transport economists, planners and engineers involved in transport policy, planning and development</td>
<td>Details: Putting employment at the centre of public investment and poverty reduction processes – Inter-regional workshop on Employment-Intensive Investment Policies and Programmes</td>
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**Eastern and Southern African Management Institute (ESAMI)**
## FORTHCOMING EVENTS

### KISII TRAINING CENTRE (KTC), KISII, KENYA

**International course in labour-based road construction and maintenance**

**Date:** 6th October - 15th November 2003  
**Venue:** KTC, Kisii, Kenya  
**Fees:** USD 5900 (course and subsistence)  
**Details:** For practitioners of labour-based roadworks. Should have a university degree. Covers choice of technology, all aspects of planning, implementation and management of labour-based construction and maintenance roadworks.

**Supervising Labour-based Roadworks Contracts**

**Dates:** 1st – 26th March 2004  
**Venue:** KTC, Kisii, Kenya  
**Fees:** USD 4,200 (course and subsistence)  
**Details:** Targeted at engineers or senior technicians supervising labour-based road construction and maintenance contracts. Course covers contract document preparation, tendering, evaluation, negotiation and awarding of contracts; contract implementation and supervision.

**Site supervisors course in labour-based and community-managed upgrading of urban low income settlements**

**A two part course**

**Part 1: Basic Course**

**Date:** 9th February – 27th February 2004  
**Details:** Targeted at site supervisors from communities, municipalities and contractors. Aimed at sensitising the participants on attitudes towards community participation and labour-based approaches and equipping them with basic skills and knowledge in supervision of urban upgrading works.

### ART 2: Skills Course

**Date:** 7th June – 25th June 2004  
**Details:** Targeted at site supervisors from communities, municipalities and contractors. Aimed at equipping participants with knowledge and practical skills to supervise and execute urban infrastructure works using labour-based community-managed approaches.

**Venue:** KTC, Kisii, Kenya  
**Fees:** USD 3,330 (Kshs. 200,000 for Kenyan participants) for both Part 1 and 2  
**Contact:** The Resident Instructor, Kisii Training Centre (KTC), PO Box 2254, Kisii, Kenya. Tel: +254-381-30699; Tel/ Fax: +254-381-21634; E-mail: courses@kiiibt-ktc.com

### Building Advisory Services and Information Network (basin)

**II International basin Conference**

**Sustainable Habitat and Livelihoods for the Poor – “Strategic imperatives and practical solutions”**

**Hosted by Development Alternatives**

**Dates:** 16th – 18th March 2004  
**Venue:** Heritage Village Resorts, Gurgaon, Dehli, India  
**Fees:** USD 450 (Government and Private Sector); USD 300 NGOs and Academia  
**Call for papers:** Deadline by 30th December, 2003  
**Contact:** Zeenat Naizi, Conference Coordinator, Development Alternatives, B-32 Tara Crescent, Qutab Institutional Area, New Dehli – 110 016, India. Tel: +091-11-2656-5370/2685-1158/2696-7938. Email: basinconference2004@sdalt.ernet.in

### TANZANIA ROADS ASSOCIATION (TARA)

**Year 2003 Annual Roads Convention (ARC 2003): Theme – Improved Rural Accessibility for Poverty Reduction**

**Date:** 20th – 21st November 2003  
**Venue:** Karimjee Hall, Dar es Salaam, Tanzania  
**Fees:** USD 100 before 24th October 2003; USD 110 after  
**Details:** Provides a forum for exchange of knowledge and experiences on best practices on the provision of sustainable rural accessibility and its impact on rural poverty. Topics to be discussed include policy, financing and institutional issues, rural transport infrastructure, intermediate means of transport, gender issues, etc. The forum is aimed at those involved in rural transport and development including policy makers, engineers, transport economists, social scientist.

**Contact:** ARC 2003 Organising Committee, P.O. Box 2028, Umoja wa Vijana Building Room No. 2A, Morogoro Rd / Lumumba St Junction, Dar es Salaam, Tanzania. Tel: +255-2151024; +255-741-336987; Fax: +255-2151024; Email: tara@kicheko.com

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**Contact:** Employment and Skills Development Programme, International Training Centre of the ILO  
**Venue:** Viale Maestri Del Lavoro, 10 - 10127 Turin (Italy)  
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**Viale Maestri Del Lavoro, 10  
**Centre of the ILO Development Programme, USD 100 before 24th October 2003; USD 110 after  
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Jobs and services that work for the poor: Promoting decent work in municipal service enterprises in Eastern Africa

By Kelley Toole, ASIST – Africa, Zimbabwe

Creating jobs for the poor while ensuring that there is adequate basic infrastructure and services is a major challenge in the fast growing urban settlements, where poverty is high. One approach to address the need for more jobs and better services is to involve small enterprises and community organisations in the provision of municipal services. In Dar es Salaam, local authorities have adopted this method for solid waste collection.

In 1998, jointly with local partners, a franchise system was put in place that covered more than half of the city’s ward. The three Municipalities tendered contracts to local enterprises and community groups. Now, in 2003, more than 50 franchisees collect 48% of the waste generated in the city, which amounts to 1,200 tons a day, and collect fees directly from customers. All told, this provides jobs for more than 2,000 people.

The ILO has been supporting this effort by advising municipal staff on the design and implementation of the system, training small enterprises and community groups on how to start and manage a waste collection business, supporting public awareness raising campaigns, and documenting and disseminating the lessons learnt.

Other municipalities in Tanzania have started applying a similar approach to solid waste collection and other urban services. In Kenya and Uganda, local governments and small enterprises are also interested in working together to improve service delivery and create jobs.

The ILO’s Office in Dar es Salaam is supporting these efforts to build effective partnerships for service delivery and decent work with the aim of showing that Public-Private Partnerships between municipal governments and locally-based representative organizations can create jobs that are free of child labour, have adequate working conditions, and especially benefit poor women and men.

Support is offered in three areas:

1. Capacity strengthening of municipal authorities and service delivery partners, through awareness raising, training, and network and organisation development.
2. Technical advice on enabling systems for small enterprise-based service delivery, including pro-poor contracting procedures, fee payment systems, monitoring and evaluation.
3. Support to broader policy development on issues related to poverty reduction, service delivery and employment creation through advice, knowledge development and dissemination, networking, and resource mobilization.

All municipalities in mainland Tanzania and on Zanzibar are eligible for support. In Kenya and Uganda, the facility will operate in two or three municipalities. As far as possible, work will be carried out through training institutions, research organizations, and consultants based in the three countries. Support will be coordinated with other support programmes that aim at urban development, local government capacity-building, and employment promotion.

For more information contact:
The Director,
ILO Office, Dar es Salaam, through
ishengoma@ilo.org or
alodiakw@hotmail.com

Testing rapid assessment of poverty impact methodology in Ethiopia

By K. Osei-Bonsu, ILO/SRO1, Ethiopia

The impact of the employment-intensive approach and other development interventions on poverty has not been sufficiently documented. This is due largely to general lack of information to generate profiles describing the poverty situation in a given area. Moreover, the causal linkages between project inputs and effects on poverty have very seldom been investigated too, even in the case of projects having poverty reduction as a clearly stated objective. As it is essential to develop, implement, and document empirical methods for assessing the effectiveness of poverty-reduction activities in improving the living conditions of target populations, the ILO’s Employment-Intensive Investment Branch (EMP/INVEST) has developed the Rapid Assessment of Poverty Impact (RAPI) tool. Through RAPI methodology, realistic and cost-effective assessments of the impact of Employment-Intensive Investment Programmes (EIIP) on poverty can be achieved. The ILO Sub-Regional Office, Addis Ababa (SRO-Addis), in collaboration with ASIST, is now testing RAPI within the framework of the Tigray Rural Road component of the World Bank-funded Emergency Recovery Programme. It is expected that this RAPI exercise will provide information on the evolution of the poverty situation in the project areas.

1 Sub-Regional Office for Eastern Africa
ASIST is a programme providing advisory support, information services and training on employment-intensive strategies and local resource utilisation in the provision of sustainable infrastructure. It is a programme of the Employment-Intensive Investment Branch (EMP/INVEST) of the International Labour Organisation (ILO).

The goal of the programme is to reduce poverty by mainstreaming employment-intensive strategies in the provision of infrastructure and services for improved and sustainable livelihoods and local economic development.

ASIST currently comprises two regional support programmes in Africa and Asia working within the framework of the EIIP. Their objective is to increase the use of cost-effective employment-intensive local resource based strategies in the provision of sustainable infrastructure, and in so doing create employment with fair working conditions for men and women.

Advisory Support
ASIST provides comprehensive policy, planning, and technical advice. ASIST advises on project and programme design, coordination, monitoring, and review of urban and rural employment-intensive infrastructure programmes and local resource utilisation.

Information Services
ASIST actively gathers, synthesises and disseminates relevant published and unpublished information on and related to employment-intensive approaches for infrastructure development and local resource utilisation. ASIST provides a Technical Enquiry Service to respond to specific requests for information. ASIST maintains a database of persons and institutions working towards the reduction of poverty through employment creation in the provision of sustainable infrastructure and services.

Training
ASIST supports capacity building essential for the mainstreaming of employment-intensive strategies in infrastructure provision through a wide spectrum of training activities including: training needs assessments, curricula and training programme development, training material and technique development, as well as the evaluation of training activities. ASIST also supports and facilitates workshops, seminars and conferences to stimulate information sharing and networking.

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Next issue
March 2004 – Issue No. 17
Diversified use of labour-based technology – A synthesis of best practices and lessons learned.

If you are interested in sending in an article or project news, write to us and we will provide you with detailed specifications and deadlines for contributions.

Past issues
See our web site for past issues of this Bulletin.

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