

United Republic of Tanzania
Ministry of Works

Labour-based Technology A Review of Current Practice

**Proceedings of the 10th Regional Seminar
for Labour-based Practitioners**

**13th – 17th October 2003,
Arusha, Tanzania**

**Theme of the Seminar:
Labour-Based Technology for Poverty Reduction**



A F R I C A

Labour-based Technology A Review of Current Practice

VOLUME 1: PROCEEDINGS OF THE TENTH REGIONAL SEMINAR

Tenth Regional Seminar for Labour-based Practitioners

***Hosted by the Ministry of Works, United Republic of Tanzania
in collaboration with the ILO/ASIST Programme***

***Arusha, Tanzania
13th - 17th October 2003***



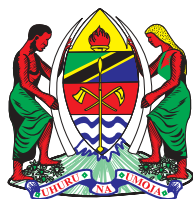
Labour-based Technology A Review of Current Practice

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Theme of the seminar:

Labour-based Technology for Poverty Reduction

*Compiled by
Prof. J. H. Y. Katima and Dr. K. N. Njau*



United Republic of Tanzania
Ministry of Works
Republic of Tanzania



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Abbreviations and acronyms

£	British Pound Sterling
A	Answer
ADRICS	Annual District Roads Inventory and Condition Survey
AICC	Arusha International Conference Centre
AIDS	Acquired Immune-Deficiency Syndrome
ANE	National Road Administration, Mozambique
ATTI	Appropriate Technology Training Institute
ATU	Appropriate Technology Unit
ASIST	Advisory Support, Information Services and Training
BICO	Bureau for Industrial Cooperation
CARs	Community Access Roads
CLC	Community Liaison Committee, Mozambique
CRB	Contractors Registration Board, Tanzania
CSIR	Council Scientific Industrial Research
DA's	District Assemblies (DA's), Malawi
DANIDA	Danish International Development Agency
DFID	Department for International Development, UK
DFR	District Feeder Roads
DRN	District Road Networks
DROMAS	District Road Maintenance Management System
EDF	European Development Fund
EIA	Environmental Impact assessment
EMP/INVEST	Employment-Intensive Investment Branch
EU	European Union
FIDIC	Federation Internationale Des Ingenieurs-Conseils
FINIDA	Finish International Development Agency
HIV	Human Immuno-deficiency Virus
FY	Financial Year
GEWp	Gender, Environment and Works Place
GoM	Government of Malawi
GoT	Government of Tanzania
GoU	Government of Uganda
GPRS	Ghana Poverty Reduction Strategy
IDA	Investment Development Agency
IFRTD	International Forum for Rural Transport and Development
ILO	International Labour Organisation
IMT	Intermediate Means of Transport
IRAP	Integrated Rural Accessibility Planning
km	Kilometre
LB	Labour-based
LRBA	Labour Resources Based Approach
LBT	Labour-based Technology
LBU	Labour-based Unit
LS	Labour Standards



MCC	Maseru City Council
MIS	Management Information System
MoW	Ministry of Works
MoWHC	Ministry of Works, Housing and Communications
MPBS	Maintenance Performance Budgeting System
MRSP	Morogoro Roads Support programme
MP	Member of Parliament
NRA	National Road Authority, Malawi
NDP	National Development Plan
NORAD	Norwegian Agency for Development Cooperation
NURP	Northern Uganda Reconstruction Project
pCET	Prospective College of Engineering and Technology (University of Dar es Salaam)
PRSP	Poverty Reduction Strategy Plan or Programme
PORALG	President's Office Regional Administration and Local Government
Q	Question
RFB	Road Funds Board
RoadSIP	Road Sector Investment Programme
RSPS	Road Sector Program Support
RTS	Rural Transport Study
RTT	Rural Transport and Travel
SAC	Social Aspects of Construction
SADC	Southern Africa Development Cooperation
SAP	Sustainable Arusha Programme
SAR	South African Rand
SATCC	Southern Africa Transport and Communication Commission
SMEs	Small and Medium Enterprises
SDC	Swiss Agency for Development and Cooperation
STD	Sexually Transmitted Diseases
TANROADS	Tanzania National Roads Agency
Tshs	Tanzania shillings (1000 TShs = 1 USD)
NPRA	Norwegian Public Roads Administration
TASAF	Tanzania Social Action Fund
UDSM	University of Dar es Salaam
UK	United Kingdom
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
USD	United States Dollar
VIP	Ventilated Improved Pit Latrine
vpd	Vehicles per day
VTTP	Village Travel and Transport Project, Tanzania



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1 Executive summary

The Tenth Regional Seminar for Labour-based Practitioners was conducted over a five-day period, from 13 -17th October 2003 in Arusha, Tanzania. It was organized and hosted by the Ministry of Works (MoW) of the United Republic of Tanzania, in collaboration with the International Labour Organisation's (ILO) Advisory Support, Information Services and Training Programme in Africa (ASIST). The theme of the seminar was Labour-based Technology for Poverty Reduction.

Governments in developing countries and their development partners are faced with the serious challenge of addressing escalating poverty levels. Creating jobs and income is central to poverty reduction strategies in many of these countries. The Tenth Regional Seminar sought to investigate the true impact of labour-based technology (LBT) on poverty reduction, collate an evidence base and identify key way in which the impact on poverty can be maximised.

Over 200 representatives from governments, their development partners and other stakeholders from 24 countries attended the seminar. Fourteen papers were presented in plenary sessions and discussed in working groups. Sites visits to various sites around the Arusha Municipality were organised to demonstrate existing labour-based works and development problems where labour-based technologies could provide solutions.

The outcomes of the plenary and working group discussion sessions were synthesised and summarized in the form of findings and recommendations and formulated into the "Arusha Statement." The participants resolved to adopt the Arusha Statement and pursue follow up actions in their respective countries. The progress and actions taken will be reviewed during the next regional seminar to be held in 2005 in Kenya.



1.1 The Arusha Statement

The 10th Regional Seminar for Labour-based Practitioners

13th - 17th October 2003

Arusha International Conference Centre, Arusha, Tanzania

Preamble

The 10th Regional Seminar for Labour-based Practitioners was held in Arusha, from 13th - 17th October 2003 under the theme "Labour-based Technology for Poverty Reduction." The objectives were to:

- Investigate the true impact of labour-based technology on poverty
- Collate an evidence base
- Identify key ways in which the impact of labour-based technology on poverty can be maximised.

210 participants attended the seminar from 24 countries. Fourteen papers were presented and discussed in six sessions under the following sub-themes:

- Infrastructure provision through LBT
- Involvement of community and private sector
- Contracting and labour standards
- Policy and up-scaling of LBT

The paper presentations and discussions were complemented with field visits to labour-based (LB) activities, namely Sombetini Quarry, Unplanned settlements of Alinyanya/Sanare, Kijenge and Majengo areas, Tanzania National Roads Agency (TANROADS) sites - spot improvement of Tanganyika/Packers-Losinyai road and routine maintenance on Moshi-Arusha highway.

HAVING deliberated on pertinent issues on LBT for five days focusing on the following key issues:

- Impact
- Challenges and opportunities
- Sustainability
- Key strategic issues

RECOGNISING the potential of LBT in poverty reduction through provision of infrastructure and services, employment creation and income generation, with opportunities for involvement of community and private sector;

COGNISANT of the link between poverty, the high rate of unemployment and the poor access to infrastructure and services;



TAKING NOTE of the accumulated experiences and success stories of pilot LBT projects and programmes that have been reported in this and previous regional seminars and realising the need for furtherance of LBT vs. poverty reduction impact analysis understanding;

ENCOURAGED by the appreciation of the seminar participants of the contribution of these regional seminars in experience sharing, networking and sharing issues of common interest for further development and hence the desire to continue holding of these seminars, and the need for review, evaluation and diversification of LBT practices for enhanced impact;

APPRECIATING the technical and financial interventions of our development partners in promoting LBT, and their willingness to continue supporting these initiatives;

REALISING the little commitments by governments slow up scaling and mainstreaming of LBT in development interventions;

CONSCIOUS of the constraints, in terms of technical, financial, institutional framework, equipment and cultural issues that have been affecting the replication of LBT;

NOTING the resolve of governments to improve the livelihoods of their citizens as evidenced by the formulation of poverty reduction strategies and subsequent targeting at achievement of Millennium Development Goals;

The 10th Regional Seminar participants **HEREBY RESOLVE** to promote, maximise and mainstream the use of LBT in the provision of infrastructure and services to contribute to poverty reduction, through implementation of the following strategies:

Creation of Enabling Environment

Policy: Impress upon Governments to put in place/implement relevant policies that will guide the mainstreaming, diversifying and maximising the use of LBT and ensure sustainability of the same. The policies should clearly guide the deployment of local contractors and communities in LBT projects.

Institutional framework: Impress upon Governments the need to create institutions charged and resourced for policy operationalisation and monitoring. The institutions should facilitate speedier implementation of decentralisation of decision-making and resources management, and reducing bureaucracy as regard to LBT practices.

Legislations: Impress upon Governments to put in place appropriate, amend existing and enforce legislations that will guide procurement procedures that enhance the engagement of LBT, contracting of communities and labour/work standards.



Contracts: Advise the Governments to develop appropriate contract forms/ framework suitable for contracting LBT works taking into consideration special circumstances of the LBT stakeholders.

Incentives: Advise the Governments to remove disincentives or put in place incentive schemes that will promote/maximise the use of LBT. Disincentives to be removed may be in the form of tax favours that favour import of equipment over local manufacturing. Where the local capacity to manufacture is not in place, incentives schemes could include import tax exemption on LBT equipment, tax holidays, tax reductions.

Capacity Building

Education and Training: Impress upon relevant Government Ministries/Institutions of higher learning and other training institutions to introduce, use, integrate and mainstream LBT topics in their relevant programmes. This shall entail development/review of relevant curricula for LBT inclusion and developing tailor made courses for LBT practitioners at all levels.

Research and Development: Encourage and fund labour-based practitioners, research institutions and institutions of higher learning to embark on LBT research and development, and dissemination of research findings and proven technology promulgation of best practices.

Awareness Raising/Advocacy: Undertake to promote the benefits of LBT through lobbying, information dissemination, awareness campaigns on LBT practices to mobilise public opinion and civil society to demand for the same. The awareness and advocacy should also include analysis of barriers against LBT maximisation and mainstreaming.

Resource Allocation

Financial: Governments should put in place financing systems and encourage the participation of local financing institutions that will ensure sustainable access of funds by LBT practitioners. The system should embrace favourable credits/loans schemes, special funds for micro-enterprises, setting aside some percentage of major projects for LBT, etc.

Equipment: Governments through relevant departments should put in place a system of enabling local contractors to access equipment, such as establishing equipment hire schemes, including encouraging establishment of private equipment hire companies.

Linkages: Governments should be advised to put in place a mechanism of linking various projects and programmes related to poverty reduction to maximise their positive impacts thereby optimising resource utilisation. Linkages should also focus on enhancing networking, management and sharing of information.



Cross Cutting Issues

HIV/AIDs, Gender, Environment and Poverty: We call upon the Governments through their relevant departments and all stakeholders including civil society, to mainstream HIV/AIDs, gender, environmental and poverty issues in all LBT interventions.

THEREFORE, we call upon Governments, the donor community and other stakeholders to take steps to formulate a PLAN OF ACTION. We recommend the 11th Regional Seminar review the progress.



1.2 Structure of these proceedings

The proceedings of this seminar are documented in two separate volumes:

Labour-based Technology: A Review of Current Practice. Volume 1: Proceedings of the Ninth Regional Seminar.

This volume documents the proceedings over the five days of the seminar, including the discussions and recommendations from group work and plenary sessions.

Volume 1 is provided free of charge to all registered seminar participants.

Labour-based Technology: A Review of Current Practice. Volume 2: Papers of the Ninth Regional Seminar.

This provides the full text of all fourteen papers that were presented during the seminar. All the participants were presented a copy during the seminar.

A CD-ROM containing the full text of the papers presented and associated PowerPoint presentations, these proceedings and photos of site visits is included at the back of Volume 1.

Printed copies of both volumes and the CD-ROM are available from ASIST or from the ILO Employment-Intensive Investment Branch (EMP/INVEST) in Geneva (refer to the Copyright Page for full contact details).



2 The Seminar

2.1 Background

This seminar was the tenth in a series of regional meetings initiated and promoted by ASIST over the past thirteen years. Nine successful regional seminars have previously been held, where labour-based practitioners not only from Sub-Saharan Africa, but also from Asia and Europe have met to review developments in the application of labour-based technology and associated issues. A list of previous seminar themes and host countries is included in Annex 1. Each seminar offers an opportunity for participants to consolidate lessons learnt over the past years into a corpus of “best practice” and to identify areas for future work. Each seminar has been held in a different country. The early seminars were organised and managed by the ASIST team, and financed by ASIST donors. From the third seminar onwards, ASIST sought to identify and collaborate with local institutions to act as host for the seminar. Due to the need to institutionalise and sustain the regional seminars within the participant community, attendance fees were introduced from the sixth seminar and the administration, moderation and rapporteuring functions were contracted out and paid for from attendance fees.

This seminar was hosted and organised by the Ministry of Works (MoW), Tanzania collaborating with the ASIST Programme in Africa. An Organising team comprising of Eng. Laurent M. Kyombo, Eng. Ukende L. Msengesi, Mrs. Grace Mwakilufi, Mr. Selemani Makuka, Eng. Hagai Bishanga and Eng. Aggrey Kajiru from the MoW Tanzania and Kelley Toole and Ida Chimedza from ASIST, coordinated all aspects of the seminar preparation and conduct.

2.1.1 THE HOST

The MoW Appropriate Technology Unit (ATU) under the Regional Roads Division was charged with the overall administration, logistics and organisation of the seminar. ATU is responsible for providing general advisory services on the application of labour-based technology (LBT) to road works implementers. It is responsible for coordinating LBT project activities and related training within the MoW, developing appropriate guidelines, standards, specifications, as well as promoting the appropriate use of LBT in the road sector.

2.1.2 THE COLLABORATOR

ASIST - Africa is a regional programme of the ILO's Employment-Intensive Investment Programme (EIIP), providing Advisory Support Information Services and Training on employment-intensive strategies and local resource utilisation in the provision of sustainable infrastructure to various countries in Eastern and



Southern Africa. ASIST - Africa is centred in Harare, Zimbabwe, with a liaison office in Nairobi. A regional programme covering Asia-Pacific, ASIST - Asia Pacific, is based in Bangkok, Thailand; while an EIIP programme covering Latin America is based in Lima, Peru.

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

The objectives of ASIST are to:

- Create employment with fair working conditions for men and women
- Develop local capacity and build knowledge and skills in government, the private sector and communities
- Create and maintain appropriate and sustainable public infrastructure in a cost effective and efficient manner.

2.1.3 ADMINISTRATION

Administration services for the seminar were subcontracted to Ms. Roselyne Mariki of Great African Safaris Ltd. of Arusha.

2.1.4 PAPER REVIEWING

The paper review team comprised of Tanzanian experts with different technical backgrounds, who worked with the Host and ASIST, i.e.,

- Eng. Kumbwaeli Salewi, Civil Engineer, National Income Generating Programme - Lead reviewer
- Eng. Light Chobya, Civil Engineer, Transport Technology Transfer Centre
- Ms Josephine Mwankusye, Sociologist, Tanzania National Roads Agency (TANROADS)
- Prof. S. Likwelile, Economist, Vice Presidents Office for Poverty Reduction

2.1.5 MODERATION

Moderation of the seminar was contracted out to Mr. Edward Mhina of Gender and Development (GAD) Consult Ltd. of Dar es Salaam.

2.1.6 RAPPORTEURING

The rapporteuring of the seminar was contracted out to Prof. J. H. Y. Katima, Principal Rapporteur and Dr. K. N. Njau. They both work for the University of Dar es Salaam (UDSM).



2.1.7 CO-FUNDERS

Financial or material support for the seminar was received from the following organisations:

Supporter	USD	Material support	Comments
Ministry of Works, Tanzania (Host)	30,000.00		Including ATATAP Project funds from NORAD
Swiss Agency for Development and Cooperation (SDC)	10,000.00		
United Nations for Development Programmes (UNDP)	8,500.00		
Tanzania National Roads Agency (TANROADS)	5,000.00	100 caps	
Contractors Registration Board (CRB)	500.00		
Crown Tech-Consult Ltd	500.00		
Tanzania Social Action Fund (TASAF)		280 T-shirts and 300 writing pads	
ILO/ASIST		Technical and financial support including sponsorship of participants	

2.1.8 PARTICIPANTS

210 participants attended the seminar from a range of organisations including government ministries, parastatals, non-governmental organisations, donors, research organisations, academia, consultants and international organisations. Representatives from 24 countries



attended namely Bangladesh (6), Botswana (2), Ethiopia (14), Ghana (6), Indonesia (2), Kenya (7), Lesotho (6), Malawi (10), Mozambique (5), Namibia (2), Nepal (3), Netherlands (1), Norway (1), Philippines (1), Rwanda (1), South Africa (13), Sudan (1), Switzerland (4), Tanzania (90), Uganda (14), UK (3), USA (1) Zambia (5) and Zimbabwe (12).

2.1.9 THE VENUE

The seminar was held at Arusha International Conference Centre (AICC) in Arusha, Tanzania. The plenary sessions were held in Simba and Mbayuwayu Halls while group discussions were held in Twiga, Mbuni, Themis rooms and in the plenary halls (Simba/Mbayuwayu).

Participants stayed in various hotels within the Arusha Municipality. The main hotels for the conference were Impala Hotel, Novotel Mount Meru Hotel, Eland Hotel and New Arusha Hotel.

A welcome dinner, hosted by the MoW, was held at Novotel Mount Meru Hotel on the evening of the 13th October 2003, and a cocktail party on the 16th October 2003 at the New Arusha Hotel.



2.2 Seminar proceedings

2.2.1 SEMINAR THEME

Addressing poverty is a huge global challenge and the focus of all development processes. The creation of employment is a key strategy in poverty reduction. In recognition of this, the participants from the last regional seminar in May 2002 selected the seminar theme “Labour-based technology for poverty reduction.” This theme was selected to examine the true impact of labour-based technology on poverty and how this can be maximised. Following the selection of the theme, the Host and ASIST commissioned a study to provide background information and identify key issues related to this theme. The issues identified in the study¹ formed the basis for the sub-themes under which the papers were invited to share knowledge, best practices, lessons learned and to stimulate discussion and debate during the seminar.

2.2.2 SEMINAR OBJECTIVES

The objectives of the seminar were to:

- Investigate the true impact of labour-based technology on poverty
- Collate an evidence base
- Identify key ways in which the impact of labour-based technology on poverty can be maximised.

2.2.3 SEMINAR STRUCTURE

The seminar programme was structured to allow for plenary presentations and discussions, group work and reporting, exhibitions and site visits (see Seminar Programme, Annex 2).

Following the paper presentation under each sub-theme, participants broke up into four groups for discussion. Each group had a moderator to guide the discussions and a rapporteur to record the outcomes of these discussions. Each group was tasked with addressing one of the following issues as related to the sub-theme under discussion:

- Impact
- Challenges and opportunities
- Sustainability
- Key strategies

The groups were provided with discussion points to guide the discussions. Each group presented the results of their deliberations in plenary.

¹ The full paper, prepared by an Independent Consultant, Kaj Thorndal, is entitled “Labour-based technology for poverty reduction” (ILO/ASIST, Harare. 2003) and is available from ILO/ASIST.



2.2.4 PAPERS

The Call for Papers resulted into submission of 57 abstracts. A team of reviewers reviewed the papers and 14 papers were selected for plenary presentation. The papers were grouped under four sub-themes:

- Provision of Infrastructure and Services through Labour-based Technologies (LBT)
- Private Sector and Community Involvement
- Contracting and Labour Standards
- Policy and Up-scaling.

The 14 papers were edited, formatted and pre-printed before the seminar and each participant received a copy (Volume 2 of these proceedings) in their welcome pack at the beginning of the seminar. The paper outlines were also posted on the ASIST website (www.ilo.org/asist) before the seminar.

2.2.5 SITE VISITS

Site visits took place on Day 3 of the seminar. Participants were divided into eight groups of about 23 people and each group travelled in a different bus to the different sites in rotation.

The following sites were visited:

- Sombetini Stone Quarry
- Unplanned settlements - Majengo Area in Elarai Ward; Alinyanya/Sanare Area in Daraja Mbili Ward; Kijenge Area in Kimandolu Ward
- Tanzania National Roads Agency (TANROADS) sites:
 - o Road maintenance by petty/village contractors
 - o Spot Improvement of Tanganyika/Packers -Losinyai Road

Before the site visits brief plenary presentations providing background information on the sites were provided. After the site visits, the seminar participants had a luncheon and site seeing visit at the Momella Lodge.

2.3 Exhibitions

Poster and publication exhibitions were mounted by different organisations and programmes during the seminar including:

- ASIST
- President's Office Regional Administration and Local Government -(PORALG)
- Appropriate Technology Training Institute (ATTI), Mbeya
- United Nations Development Programme (UNDP)/Swiss Development and Cooperation (SDC)



- UNDP/United Nations Capital Development Fund (UNCDF) District and Feeder Roads Rehabilitation Programme, Mwanza;
- ITECO, Morogoro
- Mt. Elgon Labour-based Training Centre, Uganda
- Afrika Sana

A prototype of a manual soft stone crusher developed by engineers from the prospective College of Engineering and Technology (pCET) of the University of Dar es Salaam (UDSM) was exhibited and demonstrated.

Short video presentations from a variety of programmes and projects were also shown during the tea and coffee breaks.

2.4 Evaluation

On the final day of the seminar, participants were asked to evaluate the seminar by means of a written questionnaire. 136 participants completed the questionnaire. The rating of seminar organisation and facilities were ranked good to excellent. The majority of seminar participants expressed the need to diversify future seminar's themes to cover other broader aspects of LBT such as social economic development and multi-sectoral/integrated application. The full analysis is in Annex 4.

2.5 Acknowledgements

The Organising Committee would like to give special thanks to the Government of the United Republic of Tanzania and especially the Ministry of Works for its role in organising and coordinating the seminar. Thanks are also extended to the ILO, ASIST and SDC, UNDP, TANROADS, CRB and TASAF for their support and help during the organisation of this seminar.

We thank the Moderator, Mr. E. Mhina, for his excellent work facilitating discussions between so many delegates. Mr. Mhina's excellent moderation ensured that all sessions were stimulating and interesting. We also extend our thanks to Ms. Roselyne Mariki, whose excellent coordination of the logistics and administration ensured smooth running of the seminar and all participants remained comfortable.

We would also wish to extend our thanks to Eng. Barnabas G. Ariga, the then Chief Engineer Roads, Ministry of Roads and Public Works Kenya (currently the Director, Urban Development Department, Ministry of Local Government, Kenya) for the keynote address, which set the tone of the seminar.



Finally, yet importantly, we thank all paper presenters, group facilitators and participants for their contributions and attendance whom ensured the success of this seminar.

3 Opening ceremony

3.1 Setting the scene

The Moderator, Mr. Edward Mhina, welcomed the seminar participants and gave a brief overview of the seminar objectives and format.

3.2 Welcome by Eng. Laurent M. Kyombo, Team Leader, Seminar Organising Committee

Eng. Laurent M. Kyombo welcomed the delegates to the seminar on behalf of the Organising Committee. He introduced the dignitaries who were present at the opening ceremony. These included the Minister of State in the Prime Minister's Office responsible for Policy, Hon. William Lukuvi (Chief Guest); the Regional Commissioner for Arusha Region, Hon. Mohamed Babu; the Permanent Secretary, Ministry of Works, Eng. John Kijazi; the Acting Permanent Secretary, President's Office Regional Administration and Local Government, Mr. Richard Musingi; and the Director, ILO Office, Dar es Salaam, Mr. Ali Ibrahim.

Eng. Kyombo reiterated the main objectives of the seminar and explained the intention of the seminar is to come out with a statement reflecting the deliberations and recommendations for strengthening linkages between application of LBT and related impact on poverty reduction at different levels.

3.3 Welcome address by Mr. Ali Ibrahim, Director ILO Office for Kenya, Somalia, Tanzania and Uganda

Mr. Ali Ibrahim, the Director of the ILO Office, welcomed the delegates and gave a few opening remarks. Mr. Ibrahim expounded on the poverty problem worldwide, stating that of the seven billion people living on the planet, two billion live on less than 2 USD per day. Further to this, about half of the over one billion people living on a dollar a day or less in developing and transition countries are of working age (15-64).



He observed that poverty means hunger, sickness, vulnerability, long hard days of toil and still not being able to meet ones daily domestic needs, having to send ones children to work instead of school, not having ones voice heard or being able to hold ones head up high. He gave statistics on unemployment, i.e. 180 million people are unemployed worldwide while the world's labour force is increasing by about 50 million people per year (97% of this increase in developing countries).

Mr. Ibrahim highlighted the problem of HIV/AIDS, informing the participants that over 25 million workers worldwide are infected with HIV resulting in weakened economic performance and an escalation of poverty. He underscored the need for employment creation as a means of reducing poverty, since evidence has shown that high rates of employment growth have created high rates of economic growth and thus have succeeded in reducing poverty. Employment-intensive investments in infrastructure offer a massive opportunity to address this need, since infrastructure represents about 20% of total investment in developing countries, and from 40 to 60% of public investment. He challenged governments to integrate employment considerations into development strategies and poverty reduction strategies and to redirect training to the changing needs of the labour markets.

Mr. Ibrahim explained that labour-based (LB) investment in infrastructure reduces poverty, increases income-earning prospects for communities, stimulates the local economy through materials and tools sourced and wages spent locally, and provides an opportunity to reach large numbers of vulnerable people with improved labour-standards, including education and awareness raising on HIV/AIDS. He ended up his presentation by highlighting LB projects that ILO has been supporting in Africa.

3.4 Keynote address by Eng. Barnabas Ariga, Chief Engineer Roads, Ministry of Roads, Public Works and Housing, Kenya

Eng. Ariga defined LBT as the use of an optimal combination of basic equipment and labour for the purpose of employment creation in the provision and maintenance of physical infrastructure. He argued that LBT should receive eminent importance now as unemployment presents major challenges to economic growth (e.g. most Sub-Saharan countries have unemployment in the order of 25-30% and growing at a rate of 2-3%).

Eng. Ariga observed that LBT has many advantages including:

- promotes use of local resources;
- promotes use of unskilled labour;



- promotes community involvement, enabling communities to identify themselves directly with government projects and programmes;
- is cost effective;
- reduces capital flight;
- reduces rural-urban migration;
- boosts local economies;
- encourages local entrepreneurship;
- economic and political sense is made good through redistribution of wealth;
- encourages transfer of skills; and
- technical results are as good as for machine based methods of infrastructure delivery.

Policy and up-scaling

Eng. Ariga observed that the broad objectives for a policy on LBT should be geared towards improving the living standards of the poor and marginalized in a sustainable way. However, before a labour-based programme can be implemented, the following basic policy and administrative issues must be addressed:

- The policy decision to include LBT in infrastructure construction and maintenance must be made.
- Internal capacity through training and acquisition of resources should be developed.
- Pilot projects should be carried out and evaluated before finally implementing the programme.
- Training, evaluation and capacity building of local contractors should be undertaken.

Provision of infrastructure and services through labour-based technology

The use LBT in the provision of rural roads has proved to be a viable alternative way and may be a catalyst to development. However, where LBT has been implemented purely to create employment opportunities the quality of the infrastructure is compromised. He sited successful LBT projects including the Lesotho Labour-based Programme, the Ghana Feeder Roads Programme and the Kenya Rural Access and Minor Roads Programmes.

Private sector and community involvement

Eng. Ariga observed that the involvement of the private sector and communities in inception and planning stages as well as execution is essential for LBT to be sustained. Raising awareness of the communities is necessary to demonstrate that infrastructure provision is not only an end in itself but it assists them to meet their other economic activities for example, access to markets for



agricultural produce. He cited the results from a study commissioned by the ILO on the Ghana Feeder Roads Programme and the Kenya Rural and Minor Roads Programmes. The Ghana programme utilised private sector trained contractors, while the Kenyan one was predominately a force account operation, however, the product of the two programmes was the same.

Eng. Ariga questioned why labour-based programmes in Africa are diminishing with the introduction of the private sector involvement in their execution. He remarked that in the absence of technological transfer to local communities, sustainability of LBT would remain illusive.

Eng. Ariga emphasised the importance of local contractors in infrastructure provision through LBT and cautioned against the reliance on foreign contractors. A series of simultaneously applied policies whose net effect would bring local entrepreneurs into this sector is essential.

Other issues

Mr. Ariga pointed out that the absence of donor coordination has influence on project/programme performance and subsequent sustainability. Normally co-ordination is left to the recipient country, but he questioned the ability of recipient countries to carry out this task. He submitted that the donor coordination should be through a third neutral party, such as ASIST who played this role in Kenya in the mid-nineties.

Eng. Ariga reminded the participants on conditionality attached to the funding e.g. respect for human rights, freedom of the press, etc. He cautioned that it is not possible to achieve these conditions without development. He appealed to donor community to revisit the conditions they put on the governments, as it is not the governments that suffer but the common-man.

Eng. Ariga underscored the importance of institutional capacity building. He cautioned the replication of pre-conceived standard structures of the institutions, usually from the developed world without any regard to the existing institutional framework within the recipient country, for example road boards.

Conclusion

Mr. Ariga finished his address by quoting the late founding father of Tanzania Mwalimu Julius Kambarage Nyerere saying, "As the rest of the world is going to the moon, we in Africa are trying to reach the village." LBT should provide the means to reach the villages.



3.5 Welcome address by Eng. John W. H. Kijazi, Permanent Secretary, Ministry of Works, Tanzania

Eng. Kijazi started his welcome speech by thanking the organisations that assisted in co-financing the seminar. These include the ILO, NORAD; SDC; UNDP, UNCDF; TANROADS; TASAF; CRB; and a private consultant Crown Tech Consult Limited.

Eng. Kijazi briefed participants on the use of LBT in the construction industry in Tanzania. In the road sector, LBT has been practised at project level all around the country with recognisable performance and achievement. The quality of the roads has proved the technology technically viable. The communities involved in undertaking the works realise several benefits including among others income growth, as well as improved social living standards.

He assured seminar participants that Tanzania is committed to promoting the use of LBT beyond project level, and seeks to mainstream and institutionalise LBT in day-to-day construction industry operations. The MoW is in the process of undertaking a study to establish the macro-economic impacts of the use of this technology in road works qualitatively and quantitatively. The study will form input into the National Framework Programme Document for the promotion and up scaling the application of LBT in Tanzania.

3.6 Opening address by Hon. William Lukuvi, Minister of State, Prime Minister's Office (Policy), Tanzania

Hon. William Lukuvi started by thanking the seminar participants for accepting Tanzania's invitation and sparing their valuable time to come to the seminar, and he welcomed all participants especially those who came from outside Tanzania. He further thanked individuals, organisation and development partners who assisted Tanzania in one way or the other to facilitate the organisation of the Seminar. He challenged the participants to take some time off to visit the beauty of Mother Nature at Ngorongoro Crater and Manyara/ Serengeti National Parks.

Hon. Lukuvi informed the seminar that about 36% of the Tanzanians live below the poverty line, 87% of them in rural areas and that poverty is increasing in urban areas. The gap between the well off and the poor threatens the peace and unity of Tanzania. In response, the Government of Tanzania has put in place a poverty eradication framework, which includes the Poverty Reduction Strategy Paper (PRSP) that emphasises the use of LBT in infrastructure developments.



Hon. Lukuvi informed the seminar about efforts being made by Tanzania to up-scale LBT including the formulation and implementation of the PRSP. For example, the PRSP for the roads sector identifies six actions three of which refer to strengthening, developing and intensifying the use of LBT. Tanzania has decided to up-scale the use of LBT in all its infrastructure development projects and has prepared a programme to be implemented in four years to pave the way towards fully mainstreamed use of LBT in all sectors.

Like the previous speakers, Hon. Lukuvi stressed the importance of addressing HIV/AIDS and the involvement of women in development activities, whom have proved to be catalysts for the development of the entire nation. He noted that the seminar could influence the achievement of equal opportunities for both men and women, and the sharing of responsibilities.

4 Provision of Infrastructure and Services through Labour-based Technology

Provision of infrastructure and services through LBT has created assets, generated income and employment all of which improve the socio-economic well being of the targeted beneficiaries with clear impact on poverty reduction. The objective of this sub-theme therefore, was to provide opportunity to the LBT Practitioners to assess benefits, analyse opportunities and constraints of LBT in the provision of infrastructure and service. Most of the papers presented under this sub-theme were based on case studies.

4.1 Small contractors development in Botswana through labour-based routine road maintenance by B. Obika, M. Segokgo, C. Overby and E. Masimega

Gamalihle Sibanda presented the paper on behalf of Dr. B. Obika and the other authors who were not present at the seminar. Mr. Sibanda is a Technical Adviser with ASIST - Africa and well versed with the programme described in the paper.

4.1.1 PROJECT DESCRIPTION

The Ministry of Work, Transport and Communication was the responsible ministry for the small contractor development project in Botswana working in cooperation with the Norwegian Public Roads Administration (NPRA), NORAD, the Department for International Development (DFID) and ILO.



The project had four objectives namely:

- Employment creation;
- Development of local contactors;
- Efficient maintenance of national road networks; and
- Establishment of a model for sustaining the three aims above.

The project was implemented in the following phases:

- Pre-contract services which included community consultations and pre-training of potential contractors;
- Supervision and on-the-job training of contractors; and
- Provision of post contract services.

4.1.2 CONSTRAINTS

The project was faced with the following problems:

- Low availability of contractors (in terms of numbers and capacity) able to participate;
- Need to move quickly in order to capitalise on opportunities for development of contractors offered by the large National Development Plan (NDP) programme;
- Meeting high demand of initial training requirements by the contractors;
- Unfavourable procurement regulations e.g. low ceilings on contract value for maintenance projects resulting in low economies of scale (\$7,157/km); and
- Negative public and private sector perceptions about LBT quality and productivity.

4.1.3 LESSONS LEARNED

The following lessons were highlighted:

- Need to ensure fair recruitment. There was an imbalanced gender ratio during implementation in favour of males despite more females than males being registered during pre-implementation community consultations i.e. 53/47 female to male split during pre- implementation compared to 39/61 split during implementation. Supervisors were found to be in favour of men hence there is a need to enforce fair recruitment.
- There was a huge variance in tender rates, generally 40-60% above the engineer's estimate.

4.1.4 IMPACTS

The project has had the following impact:

- Cattle related accidents were reduced by 48% - 64% due to cattle chasing, which was one of the activities undertaken under the project.
- Approximately 35% of project costs went to wages.



- 66,211 worker days of employment were created which is equivalent to 174 fulltime employees per year.

If LBT routine road maintenance were expanded to the paved road network (9,500 km), national unemployment could be reduced by 3%. If expanded to the whole road network (23,000) national unemployment could be reduced by 7%.

4.1.5 RECOMMENDATIONS

The following recommendations were made:

- Expansion of the labour-based road maintenance approach using trained contractors and consultants.
- A longer term development approach which should include other stakeholders e.g. Botswana Construction Industry Training Trust Fund.
- The use of Federation Internationale Des Ingenieurs-Conseils (FIDIC) short form of contract, as it provides for the needed flexibility for the development of local contractors while safeguarding the client.
- Term of contracts extended, for example to two years to attract more local contractors (currently limited to budget cycle);
- Review of contract value ceilings since risk associated with maintenance is low. The Central Tender Board specifies the financial ceiling for different categories of contractors. Due to the financial requirement involved in road construction, Opportunity Category (OC) grade contractors find it difficult to qualify for the jobs.

Plenary questions and clarifications

Q: What components did the Project cover, which accounted for the figures presented USD 7,000 per km?

A: The components of the costs are drain cleaning, grass cutting, fence repair and cattle chasing.

Q: What happened after 2001 when the Project ended?

A: The Project is still going on. What is needed now is up-scaling.

Q: Regarding the institutional arrangements in Botswana - is there any criterion to identify other programmes in other the ministries? If the programmes are structured, what are the experiences with co-ordinating other ministries?

A: Criteria for project creation are not straightforward, ministries set their own criteria and a policy framework is required to formalize this. The policy is not strict but open ended. Each Ministry adapts it to fit its own setting. The Road Department in Botswana did not go to other ministries until they were sure that they were doing the right thing.



Q: In the presentations it was indicated that there were 28 registered and 79 unregistered contractors. How can one have unregistered contractors? Do the procurement rules allow the unregistered contractors to operate?

A: Open invitations were made which allowed registered contractors and opportunists to apply. However, during screening only the registered contractors could win the contracts.

4.2 Experience of using labour-based technology in rehabilitation and maintenance of district and feeder roads - Medium term impact on the people and the Government of Tanzania by Halifa Msangi and Geert Mujsers

Mr. Msangi presented the paper.

4.2.1 PROJECT DESCRIPTION

The Support to Decentralisation Programme (SDP) is a five-year programme that started in 1998 and is expected to end in 2003. The objectives of the SDP are two fold namely to promote economic and social development and alleviate poverty; and provide socio-economic infrastructure through improved service delivery systems. The SDP has two components, which are the Local Development Fund (LDF), and the District and Feeder Roads (DFR) component.

The total cost for the DFR project was USD 5,569,463 of which UNCDF contributed USD 4,223,840, UNDP USD 1,156,563, and the Government of Tanzania (GoT) USD 189,060. The project was executed by the PORALG through Regional Administration and District Councils of Mwanza Region.

The objectives of DFR are:

- To select high priority roads to be rehabilitated using appropriate cost-effective (labour- based) methods.
- To develop and implement a sustainable maintenance system for the rehabilitated roads.
- To build capacity in the public and private sector to rehabilitate and maintain a core road network.

Between 1998-2003, 250km of rural roads have been rehabilitated at an average cost of USD 9,255 per km. In addition, 100km of roads have been maintained at costs ranging between USD 200 and USD 750 per km depending on the condition of the road. The procedure followed during the implementation of the DFR is outlined below:



- Community consultations and involvement.
- Putting necessary minimum conditions in place in terms of technical management capacity, and financial management and audit.
- Preparing the public and private sector (including the district engineers, local consultants and contractors).
- Providing equipment support - A modality was put in place to support small-scale contractors with equipment loans through a local bank in Mwanza, guaranteed by the UNCDF.
- Development of District Road Maintenance Management System (DROMAS) in collaboration with other labour-based programmes in Tanzania and PORALG for planning, budgeting, preparation of annual work plans and quarterly progress reports for district and feeder road networks.
- Development of systems and guidelines including:
 - o Tender documents for LB road rehabilitation model
 - o Tender documents for LB road maintenance model
 - o Pricing guideline document for LB activities model
 - o Interim payment certificate model
 - o Consult services contract model
 - o Various training materials for the District Technical Teams, rehabilitation and maintenance contractors and consultants.

4.2.2 RECOMMENDATIONS

The following recommendations were made to achieve sustainable LBT projects:

- A national guiding policy to be formulated on the use of LBT in relevant sectors such as construction, processing and the service sectors.
- Identify national institutions with clearly defined roles and linkages to implement, plan, coordinate and monitor the national policy.
- Identify one or two institutions at national level that can include LBT in their curriculum and enhance their capacity according to needs.
- The ATU within MoW be sufficiently strengthened to give technical support to implementing institutions.
- Increase awareness for LBT at all levels from public to private at local and national level.
- Ensure that appropriate tools and equipment for LBT are available in the country and make proper arrangements for small contractors to have access to credit facilities.
- Encourage donors to invest in LB roads rehabilitation also as a means to poverty reduction.



Plenary questions and clarifications

Q: The GoT contribution to the Mwanza Project is small - will there be additional contributions, from say the road fund, in future?

A: The GoT contribution was small because the money for the project was given as a grant from UNCDF. Yes. Currently Mwanza like other Regions in Tanzania is receiving money from the National Road Fund.

Q: One of the photographs shown during the presentation, showed a heavy-duty four-wheel drive tractor on an area that appears not to require such a powerful machine. Why does the contractor not use a low-powered equipment?

A: Some the contractors opted to buy oversize equipment (tractors) because they reasoned that if further work was not available they could use it in other applications such as in agriculture.

Q: How will the results of the Mwanza Project be disseminated to other districts?

A: Most of LBT application has been project-oriented donor dependent and therefore unsustainable. To make them sustainable LBT has to be mainstreamed.

Q: Monitoring at different stages is necessary before up-scaling. Give your experience?

A: The project objectives were enumerated to the stakeholders before the start of the project during discussions. At the end of the project, another stakeholder seminar to assess the projects performance and problems will be held.



4.3 The Government of Malawi (GoM)/ European Union (EU) Public Works Programme in Malawi - A multi-tier approach to poverty reduction and food security, by A. C. Lwanda, P. Ginies and A. Esterhuizen

Mr. Esterhuizen presented the paper.

4.3.1 PROGRAMME DESCRIPTION

The GoM/EU funded Public Works Programme has the overall objective of contributing to poverty alleviation and food security, through:

- Improving accessibility to rural areas
- Developing sustainable fuel wood and timber supplies
- Improving dry season gardening; and
- Providing an alternative to distribution of food to the needy communities by replacing the food handouts with projects and activities that will enable the communities to achieve longer-term food security.

The project has the following components:

4.3.2 REHABILITATION AND MAINTENANCE OF RURAL FEEDER ROADS

This component aims at improving accessibility to villages thereby reduce the cost of transport and enabling farmers to reach better markets for their agricultural produce and attend social services. The component comprised of rehabilitation of low trafficked rural feeder roads; drainage improvement; and replacement of existing timber-bridge decks with concrete decks. The programme is targeting 2,900km of road to be rehabilitated over three years. There is gradual phasing-in of the National Road Authority (NRA)/District Assemblies (DA's) for the purpose of sustainability. The maintenance of the road is village labour-based driven through a model based on a length-man system. The communities are encouraged to organise themselves into clubs and to open bank accounts into which the money is paid. The achievements to date are impressive.

4.3.3 ESTABLISHMENT OF VILLAGE FORESTRY FUNDS, NURSERIES AND TREE PLANTING

This component aims at providing sustainable wood fuel supply to the communities and increase wood production. The activities involve identification of land; supply of nursery inputs; establishment of nurseries and managing them; out planting; forest



management training; and supervision of forest activities. This component is targeted at planting 12 million trees to be managed by 1,500 villages; planting 12 million trees (including 10,000 fruit trees) to be managed by 75,000 individual farmers; and establishment of 1,500 village forestry funds (under village club accounts).

4.3.4 ESTABLISHMENT OF SMALL SCALE IRRIGATION SCHEMES

This component aims at eliminating the food deficit. It consists of the following components:

- Supplying of treadle pump irrigation to individuals organised in clubs (members pay a deposit for their own treadle pump). The members are provided with training, tools and seeds to establish the gardens. This activity targets 2,900 farmers grouped into 364 clubs.
- Stream diversion and channel construction by way of piped supply or small dam construction. The community are paid for work that includes the dam/pipe installation and the construction of supply channel. The activity targets 200 farmers.
- Construction of holding ponds or reservoirs. The water from the holding pond is channelled to the farms. This activity is targeting 270 farmers.

4.3.5 DISTRICT ASSEMBLY “CASH FOR ASSETS” PROJECT

Cash for Assets Projects are projects with maximum emphasis on job creation and food security, requiring high external resources and with a short-term lead-time to implementation. This project component intends to fund 30 roads projects; 35 fish farming projects; 20 treadle pumps irrigation schemes; 5 stream diversion irrigation schemes; and 14 land conversion schemes.

4.3.6 RECOMMENDATIONS

The authors recommended that in order to sustain the long-term goals of the project:

- The commitment of the government to implement policies related to funding and maintenance of roads, reforested and irrigated land is essential.
- The use of appropriate technology including labour-based technology should be enhanced.
- Gender balance should be addressed by addressing issues that traditionally disadvantage the women.
- Ensure community participation and ownership.
- Create a conducive environment for income generation and food production activities.



Plenary questions and answers

Q: What was the role of communities and contractors in the Malawi Programme? How was the selection done?

A: A bottom-up procedure for recruitment was used. The project is made known to the villages, and interested villages approach the project to be included in the project.

Q: The costs for road rehabilitation are approximately USD 3,000 per km, how was this achieved, in which context?

A: Most of materials used are locally procured; this cuts down the cost per km.

Q: Who makes sure that the communities are paid?

A: Contractors sometimes do not pay labourers in time and sometimes they do not pay at all. A system was been put in place where the contractor has to attach wage payment sheet to the certificate of works he presents for payments. If this is not attached the project pays the labourers directly.

Q: Were illiterate people (especially women) deployed in the projects? If so, how did the projects deal with them?

A: Participation of females was 38-42% in rehabilitation works; over 50% in forestry component and about 50% in the irrigation component. Women participation in maintenance activities is very low. The literate members of the club assist the illiterate persons.



4.4 Employment creation through the reconstruction of the EN1 highway between Chicumbane and Xai Xai in Mozambique by Atanasio Mughune and Robert Geddes

Mr. Tiago Simao Massingue presented the paper.

4.4.1 PROJECT DESCRIPTION

The project included:

- Restoration of a damaged road embankment to the original level and repairs to sections that had been lost due to the floods in 2000.
- Reconstruction of box culvert openings through the embankment and repairs to bridges.
- Erosion protection placed along the downstream face of the embankment and at the inlets and outlets to the various drainage openings and new pavement layers and surfacing.

The project sought to maximize the social and economic benefits derived by the local communities through the introduction of social clauses and specifications in the works contract as stipulated in the new road sector policy adopted by the Government of Mozambique, i.e.:

- Involve the local authorities and the local community in the implementation of the projects.
- Maximize local employment opportunities.
- Enforce labour standards, particularly the requirements of Mozambique labour law.
- Provide opportunities to local sub-contractors.
- Implement a programme of HIV/AIDS awareness and prevention activities.

The project contained specified tasks that were to be undertaken by LB methods in the contract, which included borrow pit rehabilitation and grass planting on the sides of the embankment; and works on drainage structures and the inclusion of erosion protection along the embankment.

The project provided for a Community Liaison Committee (CLC) composed of the employer, engineer, contractor and representatives of the local community. The CLC was envisaged to be an important source of local-level information for the consultants engaged in the project design.

The project involved contractors who were required to sub-contract works to a value of not less than £100,000 to small local companies.



The contract specified that the contractor was responsible for the recruitment and selection of the workforce. The contractor was required to give preference to “long-term unemployed” and single-heads of households” and “not be prejudicial to women.” The contractors delegated the responsibility for recruitment to the local authorities. Although no favouritism occurred, the authors cautioned against contractors delegating responsibility for recruitment to local authorities, to avoid favouritism. The role of local leaders should be to inform the community of the opportunity to work and the terms of their employment, and to verify that all candidates are local residents.

Population Services International (PSI) was contracted to carry out HIV/AIDS awareness activities. Most employees had access to the variety of activities undertaken which included, small group discussions, theatre and plays, video shows, billboards, music concerts, distribution of condoms, distribution of promotional materials such as t-shirts, hats, key chains and pens. The workers were sensitised to issues related to STDs, HIV/AIDS, the use of condoms and where to obtain them. However, the level of commercial/transaction sex at the site camp remained high.

4.4.2 CONSTRAINTS

The CLC did not operate effectively for various reasons including unclear division of responsibility between the employer, engineer and contractor and consequent lack of initiative by any of these parties to support the committee. There was also lack of a feeling of ownership by local authorities of the project, largely due to lack of consultation and participation in the planning and design phases. Nevertheless, the authors felt that it is important to have the CLC in place.

Constraints in supervision of the project included, unclear definitions in the Works Contract of terms such as “local”, “temporary”, “unskilled”, etc.; both the employer and the supervision team lacked experience in implementing social requirements; and failure of the CLC to operate effectively meant that the supervision team was not always aware of community grievances.

Some members of the workforce undertook significant overtime, this resulted in limiting employment opportunities for others, disrupting household arrangements, particularly for women; and created suspicion and conflict arising from the calculation of overtime payments, particularly when calculating the statutory deductions for income tax.

4.4.3 PROJECT ACHIEVEMENTS

The project was successful in achieving the main objective of restoring access across the Limpopo River flood plain. Work successfully completed by the small local companies included construction of the concrete edge beam along the road, rehabilitation



of the borrow pits, grassing of the embankment slopes and truck hire. The local sub-contracted companies were able to respond quickly to the requirements of the main contractor due to their close proximity to the project site. The project created employment opportunities for more than 600 local people with over £300,000 paid in wages to unskilled workers. The unskilled workers received the statutory minimum wage of about USD 1.20 per day. Feedback from the community indicated that this wage was of significant benefit to local residents. The increased availability of cash in the local economy resulted in reconstruction, improvement and enlargement of houses; purchase of livestock; reappearance of the traditional savings and credit system (Xitique); initiation of small informal businesses; and increased attendance at schools.

Plenary questions and answers

Q: Were illiterate people (especially women) deployed in the projects? If so, how did the projects deal with them?

A: Illiterate people are deployed in borrow pit rehabilitation, grass planting and as road signallers. These tasks do not require special skills.

4.5 Group discussions

4.5.1 MEASURING AND COMMUNICATING IMPACTS ON POVERTY REDUCTION

The seminar identified the following impacts on poverty reduction through provision of infrastructure and services using LBT.

Impacts

- Increased income through short term employment in infrastructure construction, and in the long term through access to markets for agricultural produce
- Improved food security in a given area
- Improved social security in a given area
- Improved access to basic services and facilities such as markets, schools, health facilities, etc.

Ways to measure the impact that result from provision of infrastructure

- Increased income
 - o Increased ability of the communities to pay taxes
 - o Increased proportion of wages
 - o Number of jobs created
 - o Increased incomes through employment
 - o Increased spending power of the community



- Improved food security
 - o Number of meals per day the families can afford
 - o Higher food security
 - o Improved social security
 - o Decrease in number of criminal activities in the community
- Improved access to basic services and facilities
 - o Percent of children attending school
 - o Availability and access to health service
 - o Reduced distance to basic services (school, health facilities, water supply)
 - o Infrastructure safety and better/proper usage
 - o Transfer of safety skills to rural community
 - o Number of local contractors on construction projects using local equipment and labour

Ways for communicating impacts of LBT to stakeholders

The following were identified as means of communicating impact:

- Technology Transfer Centers
- Drama
- Mass media
- Internet
- Advocacy
- Reports
- Meetings
- Local leaders

4.5.2 CHALLENGES AND OPPORTUNITIES TO PROMOTE UPTAKE AND PROVISION OF INFRASTRUCTURES AND SERVICES THROUGH LBT FOR POVERTY REDUCTION

The seminar identified the following challenges and opportunities.

- Challenges
 - o Over centralization of decision making process
 - o Lack of government commitment to LBT which is expressed in clear policy statement (e.g. PRSPs)
 - o Unconvinced policy makers on level of delivery of LBT
 - o Lack of appropriate legislation and regulations to deal with LBT
 - o Lack of clear policy statements on local construction industry development and sustained involvement of local private sector
 - o Lack of documented evidence of LBT successes



- o Lack of government capacity to deal with contracting involving LBT
- o Procurement regulation and barriers
- o Lack of financing mechanism for LBT
- Opportunities
 - o Local private sector participation
 - o Training and education
 - o Access to equipment and credit
 - o Administration of works
 - o Adoption of LBT in areas coming out of crisis e.g. floods, wars, etc.
 - o Job creation for illiterates
 - o Contractors development programmes
 - o Cost effectiveness
 - o Broader scope for LBT
 - o Labour wages and standards

4.5.3 SUSTAINABILITY OF THE IMPACTS ON POVERTY REDUCTION THROUGH PROVISION OF INFRASTRUCTURE AND SERVICES USING LBT

The seminar identified and recommended the following ways of sustaining impacts of provision of infrastructure and services using LBT.

- Political
 - o Put in place supportive policies
 - o Sensitise policy makers on the importance of LBT in infrastructure development
- Social
 - o Enhance community involvement
 - o Enhance project ownership
 - o Address issues of HIV/AIDS
 - o Gender mainstreaming
- Technical
 - o Revise academic curricula to incorporate LBT
 - o Provide on the job training for the service providers
 - o Provide training to communities
- Legal
 - o Revise procurement procedures to recognise LBT
- Financial
 - o Encourage use of locally generated funds
 - o Ensure payment of right wages and on time



4.5.4 KEY STRATEGIES TO SUPPORT PROVISION OF INFRASTRUCTURE AND SERVICES THROUGH LBT FOR POVERTY REDUCTION

The seminar identified and recommended the following key strategies to support provision of infrastructure and services through LBT for poverty reduction.

- **Policy:** Put policies in government that support LBTs
- **Capacity building:** Intensify training at all levels
- **Funding and allocation of resources:** Proper resource channelling to support LBT
- **Awareness creation:** Campaigns to be intensified
- **Contract documentation specification:** To put in place relevant documents and payment systems that lean towards LBT
- **Procurement:** Put in place definition and job description for contractors; consultants
- **Decentralization:** Define how decentralisation of decision making affect LBT related decisions
- **Monitoring:** Put in place supervision strategies and mechanisms for monitoring achievement and failures
- **Research:** Research into the LBT subject
- **Institutional arrangement:** Incorporate LBT into education systems
- **Equipment and tools:** Promote use appropriate type and size of tools; proper procedures of using of donor funded equipment; use of appropriate technology
- **Gender mainstreaming**
- **HIV/AIDS: Monitoring**



5 Private Sector and Community Involvement

The need to bring in the private sector and communities to participate in planning, prioritising, implementing and maintaining assets and services has become a priority due to the need to capture additional resources and create ownership amongst the users. Participation also provides opportunities for capacity building and empowerment and is therefore an end in itself. This sub-theme gave opportunity to the seminar participants to assess to what extent private and community involvement has been practiced and the associated benefits and constraints.

5.1 Community centred investment in basic rural access interventions - An entry point to poverty alleviation by Tatenda C. Mbara and Camilla Lema

Mr. Mbara gave the presentation.

5.1.1 BACKGROUND

Over 80% of the world's poor live in rural areas in developing countries where lack of access and mobility remain a critical obstacle to poverty alleviation efforts as well as to economic and social development.

Contrary to the old belief that roads will provide the solution to access problems, it is now realized that for various reasons roads are not enough. As a result multi-dimensional approaches to accessibility planning and improvement are being promoted which comprise of three types of interventions, namely transport infrastructure; transport means and services; and non-transport interventions.

The rural accessibility concept and the Integrated Rural Accessibility Planning (IRAP) tool were designed in response to the need for a simple process to plan for rural access interventions.

The use of LBT is generally appropriate on a typical rural access intervention but needs to be applied in an appropriate and professional manner. The contribution of LBT to community projects includes income generation, poverty alleviation and local economic development. Governments should therefore allocate funds for paid labour in rural access interventions.



5.1.2 CASE STUDY ON RURAL ACCESS INTERVENTIONS IN ZIMBABWE

The Rural Transport Study (RTS) was carried out in three districts in Zimbabwe. The study was followed by implementation using the IRAP tool and community participation, followed by an impact assessment study.

Principal findings of the RTS

- A typical rural household spends on average 70 hours travelling per week.
- The majority of trips undertaken (86%) are short and invariably on foot.
- Travel time is excessively long despite the short distances travelled.
- Women carry the greatest travel and transport burden. Goods are carried predominantly by head-loading, e.g. 95% of water transportation.
- Average load carried by a household for subsistence needs equated to 60 ton-km/year, out of which women carry 48 ton-km.
- Availability of conventional transport appears not to be an important variable in explaining travel and transport patterns for most trips .

Implementation of interventions

Following the results of the RTS, selection of access interventions was carried out in two of the three districts. The third district had inadequate local capacity to carry out interventions. Three types of interventions were selected, namely:

- Footbridges and footpaths meant to enhance accessibility.
- Construction of boreholes, aimed at reducing the need to travel long distances for water.
- A loan scheme for Intermediate Means of Transport (IMT's).

Communities were involved in the implementation of the access interventions. In one district, footbridge and footpath interventions were constructed using LBT with unpaid labour. In another, contractors, through paid labour, constructed the footbridge and boreholes. Both women and men participated in the work.

Impacts

The interventions resulted in the following impacts:

- Footbridges and footpaths: These facilities are used for diverse trip purposes such as water collection, access to education, health and shopping facilities, accessing fields, etc. The impact included ease of crossing the rivers, enhanced ability to use IMT's, travel time saving, enhanced human safety. Improved access had direct impact on poverty reduction.
- Boreholes: The impact of the boreholes included reduced travelling time and distances; reduced health risks; changing gender roles i.e. trip responsibility shifted from adults to boys and



girls, and in some cases from men to women because of close proximity and improved security and increased frequency to draw water from a nearby source.

- **IMT's:** The impact of the IMT's included the ability to carry greater loads; reduced travel and transport burden by female members of the household; benefits spreading through lending IMTs to friends and relatives and income generation through hiring out of IMT.
- **HIV/AIDS:** The study found that the impact of access improvement on HIV/AIDS pandemic could either be positive or negative. Access improvements enhanced information and communication on HIV/AIDS, but also fuelled the crisis due to increased interaction.
- **Environment:** The impact on environment should be considered highly on the agenda and plans for rural access interventions. There is a dire need for more awareness campaigns and sustainable measures for environmental conservation in rural areas. There is also a need for Environmental Impact Assessment (EIA) in rural access programmes.

5.1.3 LESSONS LEARNT

- All types of access interventions complemented with policy and institutional reforms contribute to reducing many aspects of poverty including: social exclusion, lack of basic needs, livelihood un-sustainability, vulnerability, human under development; and income poverty.
- Availability of technical capacity at the local level is a prerequisite for successful implementation of access interventions.
- Poor workmanship will inevitably shorten the economic life of access interventions, hence the need for adequate capacities in LBT application.
- There is a need to institute proper maintenance systems on physical access interventions.

Plenary questions and clarifications

Q: In the footbridge construction there was no mention of the comparison between voluntary and paid labour in terms of productivity.

A: Comparison in terms of productivity has not been done, as the focus was placed on the need to improve the access of the beneficiary communities.

Q: Were the community contributions voluntary or forced contributions?

A: The community contribution was voluntary since the communities agreed to a cost sharing mechanism.



5.2 Opportunities for community participation in feeder road rehabilitation and maintenance by Michael Knowles

Michael Knowles presented the paper, which is based on Uganda's ten-year Road Sector Programme that started in 1996.

5.2.1 BACKGROUND

The author presented the experience of the past seven years of the district road rehabilitation and maintenance works of the Road Sector Development Programme (RSDP) in Uganda by force account and more recently private sector contractors using LBT.

In 1996, the Government of Uganda (GoU) formulated a ten year Road Sector Development Programme and obtained donor assistance from Danida through the Road Sector Programme Support (RSPS) for the period 1997 - 2006. The Programme was initiated in 1997 with a Feeder Road Project (FRP), which ended in December 1999. This was a component of the Northern Uganda Reconstruction Project (NURP), with the objective of developing capacity for feeder (district) road planning and maintenance in four districts of northern Uganda.

In January 2000, a three-year Programme of Support to District Road Networks (DRN Programme) was initiated to continue and expand the work under the FRP. An important component of this Programme was to continue to develop and promote ways of addressing Gender, Environment and Work Place (GEWp) issues that further enhance opportunities for effective involvement of all stakeholders, and create a favourable environment for implementation. In January 2002, the second phase of the DRN Programme, Road Sector Programme Support 2 (RSPS 2) commenced in ten districts of northern Uganda. This further developed, consolidated and carried forward the "best practices" and extended these into the Ministry of Works, Housing and Communications (MoWHC) planning, programming, procurement and implementation process for the national road network.

5.2.2 ACHIEVEMENTS

From 2000 to 2002, the RSPS-1 achieved the following:

- USD 2.5 million was spent, with over 30% on wages
- 250,000 worker days of employment/year were generated
- 415km of all-weather access roads were improved
- 534 domestic contractors were trained of which 20% were women

The impact on poverty included improved living standards for workers; increased school attendance; lower travel times, and as a result increased farm production; increased access to goods and



services; improvements in off-farm employment opportunities such as road maintenance, brick making, building works, etc.

Other impacts as a result of participation include: involvement of local communities in road planning through the Annual District Road Inventory and Condition Survey (ADRICS) manuals; involvement of women in works as contractors; empowerment of women through employment and management of income; and promotion of awareness of workers rights through production of a booklet.

Examples of best practices are:

- Planning
 - o Involvement of local communities in the planning and setting of priorities
 - o Identification of priority works
 - o Preparation of work programs based on actual budget
 - o Pre-qualification of competent domestic contractors
- Programming
 - o Choice of technology based on actual available technologies, costs and resources
 - o Conduct of pre-tender meetings
 - o Preparation of contract documentation including clauses addressing GEWp issues which are enforceable
 - o Preparation of Contract Bills-of-Quantity including provisions for meeting the costs of addressing GEWp issues, etc.
- Implementation
 - o Use of transparent procurement procedures
 - o Conduct of mobilisation meetings
 - o Payment incentives to encourage contractors to comply with contractual obligations
 - o Holding of regular site meetings including all stakeholders.
 - o Holding of end-of-works maintenance meetings
- Monitoring and reporting
 - o Establishment of Road Committees which include all stakeholders
 - o Use of 'focused' indicators to measure performance
 - o Use of 'focused' indicators to measure impact
 - o Use of information as a feedback a) to stakeholders, and b) for identification of improvements in planning, programming and implementation.

However, it was cautioned that for the best practices to yield results the following must be in place:

- Commitment by road network managers during planning and programming to address and provide budgets for using best



practices.

- Commitment by road works supervisors to enforce compliance of the best practices.
- Commitment by the contracting community to fully comply with the best practices.

Plenary questions and clarifications

Q: Are the impacts on poverty reduction derived from better infrastructure or direct results of the application of LBT in the infrastructure development?

A: There is a move to introduce a Management and Monitoring Information System to monitor the impact of community participation. The monitored parameters may be the number of new houses built, ownership of bicycles, change in roofing material to iron sheets, general improvement of people's living standards, etc.

Q: To what extent can the cost be discussed before tendering?

A: The procurement meeting is not only for the client to present the project to the contractors but an opportunity for the contractors to meet the community and judge for himself the cost of the work. The contractor then prepares his documents based on the reality on ground not only on the information he gets from the engineer.

Q: Clarify the issue of retention?

A: The retention is there to force the contractor to complete the work on time.

Q: What have the challenges and constraints of using MIS been?

A: Computers and computing skills. These are necessary and can be a limitation.

Q: Who does the financial and technical auditing and at what frequency in Uganda?

A: Auditing is done by district auditors and parent ministry financial managers (Audit General).

5.3 Community involvement in labour-based upgrading - Urban experience from Maseru By Eng. Mpayo Kasure

Tomas Stenström of ASIST on behalf of Eng. Mpayo Kasure presented the paper.



5.3.1 BACKGROUND

Lesotho is faced with the following challenges:

- High percentage of population live below the poverty line (58% of total and 28% of urban)
- High rate of urbanization
- High unemployment (40%)
- High HIV/AIDS prevalence (31% among adult population)
- Food shortages as a result of the recent Southern Africa food crisis, which had unprecedented negative impact on the country's food supply.

In order to address the above challenges the Government of Lesotho has put in place the following strategies:

- Institutionalisation of LBT within the Ministry of Public Works and Transport, which is largely responsible for rural roads.
- Initiation of a PRSP process with a new attitude to planning by ensuring participation of all stakeholders.
- Including in the National Policy on the Strategic Development, Utilization and Retention of Human Resources such strategies as direct investment in labour-intensive economic sectors, improvement of relevant education and vocational training with the aim of poverty reduction.

5.3.2 MASERU CITY COUNCIL LABOUR BASED PROJECT

The Maseru City Council (MCC) has adopted an approach that involves communities and uses LBT to improve its capacity to adequately address the expanding and already grave challenge of urban unemployment. The Project, which was implemented from 2000 - 2002, had two main components: to support the establishment of a Labour-based Unit (LBU) and to build the council staff capacity to manage the unit. UNDP/United Nations Volunteers (UNV) and the ILO provided the technical assistance, while funding was from the Government of Japan (USD 360,000).

The Project adopted a multi-sectoral approach that involved the following components:

- **Community involvement:** This involved the establishment of representative structures, conducting seminars to agree on participatory procedures, training and community action planning.
- **Upgrading of community roads:** Fourteen stretches of community roads were prioritised, surveyed and costed.
- **Soil conservation:** This mainly involved erosion protection works.
- **Solid waste management:** Involving awareness raising and organisation of a waste collection and payment system.



- Income generating activities: A multi-purpose co-operative society was formed with a goal of fighting poverty and creating job opportunities.

5.3.3 IMPACTS

The impacts of the project included:

- Enabling the upgrading of eleven stretches of roads totalling 30km.
- Generation of 26,000 worker days of employment of which 12,700 went to women.
- Ten people got long-term employment in road upgrading due to new skills acquired.
- A total of 171 people were involved in solid waste management and savings societies have been formed in three constituencies.

5.3.4 SUSTAINABILITY

The project is sustainable due to the strong policy support; availability of funding for community works; the change in attitude amongst community members towards participation; a new confidence in the MCC and government; and a change in the historically negative perception of LBT (“fato fato”).

5.3.5 CONCLUSIONS

The multi-sectoral approach of the Project has demonstrated employment opportunities in many areas of urban upgrading and service delivery. Commitment by the Government to the implementation of poverty reduction strategies will ensure expansion to other urban centres in Lesotho.

Mr. Stenström ended the presentation with the following quotation from an official in the Ministry of Local Government:

“If we want to change the situation, we first have to change ourselves; and to change ourselves effectively, we first have to change our perceptions.”

Plenary questions and clarifications

Q: It was reported during the presentation that LBT use started 30 years ago in Lesotho, while today unemployment rate stands at 40%. What has the impact of LBT on poverty been?

A: It is difficult to measure the impact in terms of employment rate because within the last 30 years two events took place, namely layoffs in the South African Mines that brought many Lesotho residents home, and the riot problems in 1980's that resulted in the destruction of property leading to further poverty.



5.4 Group discussions

5.4.1 IMPACTS ON POVERTY REDUCTION FROM PRIVATE SECTOR AND COMMUNITY INVOLVEMENT

The seminar identified the following impacts on poverty reduction resulting from private sector and community participation in LBT.

- Knowledge and skills enhancement
 - o Provides opportunity for skill development
 - o Provides avenue for innovative thinking
 - o Provides opportunity for technology acquisition
- Community participation
 - o Involvement in all stages of the project enhances a sense of ownership
 - o The community knows and articulates its problems best
 - o Provides for wider participation and gender integration
 - o Presents a platform for addressing cross-cutting issues e.g. HIV/AIDS
 - o Develops an improved maintenance culture
 - o The poorer population are empowered through involvement in decision making and governance.
- Improved accessibility
 - o Improved maintenance of facilities
 - o Services brought nearer to the people
 - o Avails opportunity for maintenance contracts for local contactors and community groups
- Increased incomes
 - o Indirect jobs created for services
 - o Direct incomes increase
 - o Increased and more equitable distribution of national wealth
 - o Employment created
 - o Reduced numbers of unemployed

5.4.2 CHALLENGES AND OPPORTUNITIES TO ACHIEVING PRIVATE SECTOR AND COMMUNITY INVOLVEMENT

The participants discussed and identified the following challenges and opportunities to achieving private sector and community participation:

Private sector involvement

- Challenges
 - o Insufficient experience/capacity of both consultants and contractors with LBT



- o Insufficient experience/capacity of clients
- o Lack of awareness within the private sector
- o Lack of acceptance of LBT approaches
- o Lack of financial management skills of contractors and clients
- o Lack of equipment and finance for contactors
- o Lack of a clear policy framework for private sector operations
- o Lack of appropriate contract documents for small LBT works
- o Lack of workload to sustain developed contractors
- o Lack of an appropriate measurement tool for poverty impact
- o Unfavourable environment for the use LBT
- Opportunities for
 - o Emerging contactors and consultants, financial institutions, suppliers of material to enter the market
 - o Exploiting the large potential for LBT in all infrastructure sectors
 - o Public and private sector to become aware of real poverty situation on the ground
 - o Support to privatisation efforts
 - o Dissemination of HIV/AIDS awareness information
 - o Better protection of environment
 - o Ensuring good quality product, since the contractor and the supervisor are not one and the same
 - o Dskill development on a large scale
 - o Increased employment opportunities resulting from increased labour force requirement
 - o Access to skill development
 - o Utilisation of local resources

Community involvement

- Challenges
 - o Lack of awareness and acceptance
 - o May require cultural changes before acceptance e.g. women working on road works
 - o Lack of skills and understanding
 - o Merging project objectives with community aspirations and priorities
 - o Lack of meaningful contribution by public during planning stage
 - o Lack of special contractual processes for community contracting
 - o Lack of supportive policies
 - o Lack of fair working conditions
 - o Lack of financial support



- o Spread of AIDS hampers the availability of workforce
- o Inadequate bargaining power
- o Current legal environment does not recognise community involvement
- Opportunities for
 - o Employment creation at local level generates income
 - o Improved living standards of the communities
 - o Ownership creation
 - o Ensured sustainability of the project
 - o Local skill development and capacity building
 - o Better organised communities
 - o Mass contribution to development and sustainability
 - o Reduced rural migration
 - o Reduced crimes
 - o Politicians to access the public

5.4.3 WAYS TO SUSTAIN IMPACTS OF PRIVATE SECTOR AND COMMUNITY INVOLVEMENT ON POVERTY REDUCTION

The seminar identified the following as necessary to sustain impacts of private sector and community involvement in LBT:

- Legal framework to define, empower and enable the community to take charge of their affairs.
- Political support at higher level to cede some powers to the communities and empower them.
- Availability of resources, continuous business and continuous involvement.
- Activities must not be on-off affairs but integrated into full community programs.
- Political support at highest level to set up firm, durable community-based structures that can plan, implement, report and account.
- When the systems are in place then endeavour to:
 - o Simplify procurement procedures
 - o Mainstream LBT in the construction works
 - o Build capacity of communities to plan, implement, monitor and account
 - o Empower the community to levy taxes and fees for infrastructure development
 - o Sensitise the community on prioritisation of investment in infrastructure i.e. roads, water supplies, schools, health centres, all of which are for their good and through which they also earn a livelihood.



5.4.4 KEY STRATEGIES TO SUPPORT THE INVOLVEMENT OF COMMUNITIES AND PRIVATE SECTOR

The seminar participants identified the following key strategies for the involvement of the private sector and communities in LBT.

- Creating enabling environment though:
 - o Creating awareness on new opportunities at all levels. This can be achieved through:
 - Civil education
 - Establishing a proper communication strategy
 - Information dissemination
 - Creation of political will
 - o Commitment by all key stakeholders
 - o Decentralization (i.e. remove unnecessary bureaucracies and red tape) in:
- Decision making process
- Funds (loans) allocation and management
 - o Put in place clear investment policy:
- To guarantee long term market
- To clearly stipulate procurement procedures and guidelines
 - o Build capacity of the private sector and communities to ensure meaningful participation
 - o Ensure availability of equipment (hire purchase)
 - o Enhance accessibility to capital
 - o Ensure proper documentation
 - o Develop public/private partnership
 - o Ensure corporate governance



6 Contracting and labour standards

While LBT contributes to poverty reduction, if not guided by labour standards it may be another form of exploitation. Current procurement procedures, regulations and contracting procedure were not specifically designed for LBT. This sub-theme was intended to give opportunity to the seminar participant to assess to what extent contacting procedures and labour standards can be applied to LBT with the intention of promoting decent work and poverty reduction.

6.1 “Amadiba” Road by R.D. Little

Mr. Ishmail Cassiem presented the paper on behalf of the author who was not present.

The paper reported on a 40km, community based-labour intensive, gravel road that was constructed in Eastern Cape Province, the poorest area in South Africa. The funds for construction were obtained from National Poverty Alleviation Fund.

6.1.1 PROJECT DESCRIPTION

The project is situated in Bizana Local Municipality, which has a population density of 84 people/km². Thirty three percent of the population is between 20 - 60 years. The unemployment rate stands at 75.6% (1999 figures); the Human Development Index for the area is 0.42; and 76.3% of population live in poverty. The area is therefore ideal for LBT.

A 36-meter reinforced concrete arch causeway was built by semi-skilled labour to cross a river, which was often impassable after rain. This type of construction was considered suitable as the cost was similar to a causeway with pipes, and the flow before overtopping was calculated to be 80 cubic meters per seconds as opposed to 27 cubic meters for the pipe solution.

The project used 64 drifts. These were used because of the several advantages, namely they are cheaper than pipe culverts, they carry more flow, they are easier and quicker to build, no fill is required as for pipe culverts and they act as inverted speed bumps.

Impacts

The Amadiba road employed 1700 people, 60% women and 20% were below 25 years old. The labourers were paid between SAR 30-35 (USD 4-4.62) per day and the task work contracting method was used throughout project. Sixty percent of the total construction cost was spent on wages and a further twenty percent on local haulage contractors. This means eighty percent of the project money was spent in the project area.

Before the project, there were no appropriate access roads. Only



tractors and pick-ups provided transport in the area. After the road construction, the traffic volumes increased from 30 to over 100 vehicles per day and the average speeds doubled from 15 to 30 km/h. The road has also enhanced accessibility for the police force to combat crime in area.

One of the objectives of the project was to develop emerging contractors. Two types of emerging contractors were used, i.e. those carrying out construction and those doing haulage. Twenty haulage contractors participated. These were mainly local tractor, trailer and truck owners. Most have upgraded their vehicles.

New Engineering Contract

Council for Scientific and Industrial Research (CSIR) undertook the contract for the National Roads Agency, that normally insists on having conventional designs, drawings and specifications, and the fees according to the standard agreement between the client and their consultant. This project was different because no conventional designs were carried out, usual specifications were not applicable or enforceable and the client could penalise community for non-performance. The solution, therefore, was to use the Cost Reimbursable Contract of the New Engineering Contracts published by the British Institutions of Civil Engineers.

Conclusions

Following conclusions were drawn:

- The project brought about substantial economic impact to the area.
- Task work contract was found suitable for the kind of works.
- The project improved accessibility to the communities.
- Use of drifts for the drainage works was cheaper than pipe culverts.
- Cost Reimbursable Contract was most suitable.
- Emerging Contractors Development Programme will enhance sustainability of the project.
- The maintenance scheme that has been put in place will ensure sustainability of the project.
- The project has demonstrated that labour intensive methods can be successful.

Plenary questions and clarifications

Q: What are the outcomes on the empowerment and purchasing power of the communities along Amadiba road?

A: Impacts of the project on poverty included: participation in selection of workers, income generation, participation in future projects and empowerment of the communities



Q: Was the salary payment per day? As no conventional standards were used for the Amadiba road, which standards were used? What was the cost per km?

A: The wage of SAR 30 was per day per person. The contractor and consultant specified the standards, i.e. compaction was done using traffic from the village and the money was saved for the community. The cost per km was SAR 183.

Q: Did the task contract result in conflict since the groups were composed of men and women?

A: No discrimination has been reported against women. Labour law in South Africa does not allow discrimination. Groups distribute work according to ability.

Q: Elaboration was sought on conventional contractor/cost reimbursable contract. What was the basis for selecting contractors if conventional drawings, standards were not in place?

A: Contracts had cost components and this differentiates the contract cost and hence assists the selection of the contractor.



6.2 Implementing labour standards in construction by Rebecca Scott

Rebecca Scott presented the paper.

The paper is based on the results of a study commissioned by the Department for International Development (DFID) on Social Aspects of Construction (SAC). DFID proposed that contracts within their assisted infrastructure programmes should ensure inclusion of ILO international conventions and other relevant social standards, through, inclusion of social clauses into Special Conditions of Contract. The SAC study was commissioned to test the practicability of the approach. The study looked at the case studies of Ghana, Zambia and India.

The study considered the following labour standards:

The four core ILO labour standards:

- Freedom of association
- No forced labour
- No child labour
- No discrimination

The following five broader ILO labour standards were also considered:

- Addressing health and safety
- Wages to be paid in full and on time
- Limited working hours and overtime pay
- No repeated casualisation
- Social security regimes applied

Together, the nine labour standards affect people's basic rights and freedoms, enhance dignity and promote well being, affecting the social, political and financial capital of the poor.

6.2.1 LABOUR STANDARDS AND POVERTY

The construction sector is world's largest employer of temporary workers. The aim should be that it and provides:

- Decent working conditions
- Security of employment
- Economic security
- Protection from "shocks"
- Rights, freedoms, dignity, well-being

6.2.2 LABOUR STANDARDS AND LBT

Issues of labour standards are particularly relevant to situations where labour-based technology is practiced and a large workforce is



employed. This is due to the issues and nature of both the workers and the contractors in LBT situations as outlined below.

Workers issues

- Increased health and safety risks because of the large number of workers involved and their low safety awareness.
- Casual labourers are not experts and normally do not have rights in law.
- Absence of an individual may go unnoticed because of large workforce.
- Migrant workers, often involved in construction, do not enjoy rights due to lack of awareness.

Contractors

LB contractors tend to be at the entry level of the contracting spectrum with limited accountability and responsibilities. They may also be community-based organisation with little contracting experience. These factors may result in under-bidding and consequently limited financial flexibility in implementing the requirement of the LS. LB contractors also tend to keep poor employee records of the large temporary workforce i.e. who is working, on which days, hours of work, pay due, and accidents reporting is poor which may undermine implementation of LS.

Constraints

Further constraints to the application of LS arise because:

- LS are considered as an outside imposition.
- Contractors are not interested.
- Workers are not interested.

6.2.3 ROLE OF THE CONTRACT

Contracts can be used as a mechanism for implementing and monitoring application of labour standards; influencing legal, technical and management issues; and preventing short cuts.

6.2.4 LABOUR STANDARDS AND WIDER IMPLICATIONS

HIV/AIDS

HIV/AIDS intervention is not just awareness raising but it should consider issues like non-discrimination, confidentiality, care, support, household incomes, migrant labour force, and reduced productivity.

Gender and vulnerable groups

Gender and vulnerable groups programmes should consider discrimination/exploitation and needs of dependents.



Environment

Environmental issues should cover application of health and safety measures affecting the workforce and the surrounding populations

6.2.5 MAKING LABOUR STANDARDS OPERATIONAL

The author proposed five steps for implementation of LS as follows:

- Identify gaps in law and policy, standard contracts, agreements, practice
- Define a way ahead by defining roles and responsibilities and which LS to focus on.
- Implement through consultation, addressing concerns, building capacity, reviewing contract clauses, costing the implementation measures, communication to all stakeholders.
- Monitor for compliance, incentives/sanctions and impacts
- Institutionalise: through proper documentation, defining responsibilities, and putting strategy in place.

Plenary questions and answers

Q: How can the donor community make LS a requirement of the projects they finance.

A: The study was not intended to enforce the LS but to establish what is possible and what is not. The best way would be to encourage governments to include LS rather than increasing conditions to access finances. However, this is up to the donors.

Q: Does the inclusion of cross cutting issues in the project increase costs?

A: The study did not look into whether inclusion of cross cutting issues increases the cost. Interventions intended to solve cross cutting issues may not necessarily be part of the contract. Negotiations with the contractors would be required for their inclusion.

Q: What are the costs associated with incorporation of social aspects into contracts?

A: Associated costs will be discussed in groups. However, whatever system is used it should be transparent.

Q: Clarification was needed on the difference between forced labour and voluntary labour. For example, what form of labour is food for labour and child labour?

A: In my opinion, forced labour is where an individual is engaged against his/her will whereas voluntary labour is undertaken on the consent of all parties. Food for labour may be regarded as paid labour i.e. instead of a person getting money that he/she may eventually use



to buy food, one gets food. Of course, this will remain true if there is consent between the parties. Food for labour may also be looked at from an incentive point of view. Using food for voluntary labour aims at enhancing ownership and maximising community benefits from the product they have. However, the study recommended that the issue of incentives should be looked at differently. Child labour is illegal.

Q: Is it feasible to have unions involved in monitoring? What steps should be taken to involve them?

A: Yes. LS exist but are not implemented and the major challenge is monitoring aspect. If a law is not monitored it is not implemented.



6.3 Nipping poverty in the bud through appropriate road contract management By Raphael Mabenga

Mr. Mabenga presented the paper, which introduced the Road Sector Investment Programme (RoadSIP). The goal of RoadSIP, which is being implemented in two phases (1998 -2002 and 2002 - 2007), is to facilitate economic growth and diversification (particularly in the agriculture sector) through a sustainable system for the financing and management of the road network.

6.3.1 PROGRAMME DESCRIPTION

The objectives of RoadSIP are to bring 33,500km of the core network to a maintainable condition; improve road conditions; build capacity of road authorities; create employment for poverty alleviation; improve road safety; improve environmental management; and improve rural transport services.

One of the targets of the programme is to reduce road accidents by 20% through vegetation control and pothole mending. The National Road Safety Council, which is autonomous, has been established. An action plan has been formulated and is being implemented. However, the accident rate has not gone down because the improved roads have resulted in over speeding. The rehabilitated roads need routine maintenance.

6.3.2 PERFORMANCE STANDARDS

The programme is being implemented under the following performance standards and conditions:

- Warning signs (in compliance with Southern Africa Transport and Communication Commission (SATCC) standards) must be appropriately installed.
- Protective clothing and health care should be provided including access to condoms.
- Vegetation/grass should not be more than 30cm in height; and burning of grass is not allowed.
- Width of the cut grass should be 6 metres from edge of carriageway.
- No rubbish, debris or dead animals visible on the road, verges, shoulders.
- No unattended oil spillage.
- Drains should be clear of silt and no evidence of ponding water.
- No evidence of erosion damage.
- Side road line marking must be clearly visible at all times.
- Potholes should be patched within two weeks.



The contract documents follow the standard document for a measured contract except that there are no bills of quantities.

6.3.3 EMERGENCY DROUGHT RECOVERY PROGRAMME

This programme was funded by the World Bank (through Investment Development Agency (IDA)) to mitigate the effect of drought in Zambia. It covers 38 districts affected by drought and has a budget of USD 19 million. 350 projects are being implemented providing 20 working days per person per month. The labour force is composed of 60% women.

The project provides for all necessary tools for LB works. These are given to local inhabitants who are working on these projects and later the tools will be re-used for performance of routine maintenance after completion of the project.

Indicators used to assess impact on poverty alleviation include quality of life, number of jobs created, length of road under continuous maintenance and HIV/AIDS awareness level.

In order to sustain the project activities (2003 - 2008) the government is drawing money from the fuel levy, vehicle licence fees, international transit fees and weighbridges fees to finance the Programme.

Plenary questions and clarifications

Q: Is the political will supported by resource allocation? What is the acceptable percentage of voluntary work?

A: Routine maintenance is funded from the Road Fund. This shows political commitment.

Q: How difficult is it to apply performance based contracts when unskilled labourers do the work? How is the quality ensured?

A: Pothole filling is done by trained people i.e. graduates from the Roads Training School. The contractor supervises the work and the Provincial Engineer assesses the performance

Q: Pothole filling has to be done within 24 hours, which method is used to identify and filling potholes?

A: Reporting of potholes is enhanced by involving the communities; however, the contractor is encouraged to go out looking for the potholes. Pothole mending is reduced from two weeks to 24 hours to motivate contractors, as they will mend more potholes to get more money.



6.4 Group discussions

6.4.1 IMPACTS OF LOCAL CONTRACTING OF LB WORKS ON LABOUR STANDARDS AND POVERTY REDUCTION

The seminar identified the following impacts of contracting on labour standards.

- LB contracting
 - o Efficient use of resources
 - o Improved productivity
 - o Improved quality of work
 - o Better utilization of resources
 - o Attracts increased funding
- Labour standards
 - o Increased community participation and development
 - o Child labour avoided
 - o Women participation increased
 - o People with special needs considered
 - o Safety and protection of workers enhanced
 - o Ensured workers welfare
 - o Increased workers' safety
 - o Work reasonable hours
 - o Improved well being because of fair wages
- Negative impact
 - o Increased cost (government to meet the increased cost)

6.4.2 CHALLENGES AND OPPORTUNITIES IN CONTRACTING AND IN IMPLEMENTING LABOUR STANDARDS TO SUPPORT LBT FOR POVERTY REDUCTION

The seminar discussed and identified the following challenges and opportunities in contracting and in implementing labour standards for supporting LBT.

Contracting

Challenges

- Implementation capacity
 - o Lack of security and stability
 - o Conflict of interests
- Quality
- Lack of flexible/appropriate procurement regulations
 - o Exploitation of labourers



- Productivity
 - Lack of regular and steady funding
 - Lack of community contracting regulations
- Accountability
 - Lack of business security
- Access to appropriate equipment and finance
 - Lack of finance

Opportunity

- Creation of enabling environment

Labour standards

Challenges

- Lack of implementation capacity to enforce LS
 - Lack of awareness on importance of LS
 - Limited access to appropriate equipment and finance
- Fair wages for labourers
- Timely payment

Opportunity

- Opportunities for workers to form societies (unions)

6.4.3 WAYS TO SUSTAIN THE APPLICATION OF LOCAL LEVEL CONTRACTING AND LABOUR STANDARDS FOR POVERTY REDUCTION

The seminar participants identified the following ways to sustain the application of local level contracting and labour standards for LBT.

- Institutional framework
 - Policy: Government commitment in establishing LBT policy, i.e. tax policies to give rebates on LBT equipment
 - Socio-economic: Awareness to both contractors and community on LBT (“promulgating LBT”)
 - Financial: Identify clear budget line and funds for LBT, create credit facilities in the local financing institutions
 - Legal:
- Create appropriate labour standards
- Create appropriate procurement process suitable for LBT
- Create a body that is responsible for the registration of LBT contractors.
 - Technical:
- Create harmonized and accredited training
- Introduce LBT at tertiary training levels



6.4.4 KEY STRATEGIES TO SUPPORT THE PROMOTION OF BETTER CONTRACTING ENVIRONMENTS AND LABOUR STANDARDS FOR ADDRESSING POVERTY ASPECTS

The Seminar discussed and identified the following key strategies to support the promotion of better contracting environments and labour standards for addressing poverty.

- Standardize labour standards in tendering procedures
- Develop, identify and apply guidelines/labour standards to address informal sector issues
- All stakeholders to agree on basic standards
- Create awareness of the people's rights within communities
- Establish government policy on labour standards
- Prepare tailor made courses for local contractors
- Monitor current practices to ensure adherence to legal status
- Develop and enhance systems to promote experience and information sharing on contracting and labour standards
- Put in place appropriate mechanism for labour laws
- Use both incentives and penalties to ensure compliance
- Put in place appropriate legal framework
- Allow positive flexibility
- Set minimum wages in consultation with the relevant bodies
- Introduce workers compensation at all levels of employment.



7 Policy and Up-scaling

The challenge of tackling poverty is huge. One in five people on the planet live in abject poverty. If we are to meet the challenge then impact must be scaled up.

Successes achieved at project level have not been successfully replicated. The papers under this sub-theme look at experiences of programmes that have tried to go to scale, opportunities for increasing use of LBT through technical means and the role of policy and decision makers.

7.1 Filling the gap between policy and practice - Influencing decision makers to use LBT by Shuva Sharma

Mr. Sharma presented the paper.

7.1.1 GAP BETWEEN POLICY AND PRACTICE

Policies normally look good but they are not always useful when one needs them. Many policies exist which embrace LBT, for example, most developing countries have developed Poverty Reduction Strategic Policies (PRSPs). However, even with all the studies showing the benefits of LBT, why has LBT not been mainstreamed? There is a wide gap between policies and practices, attributed to the fact that LB approaches are not widely understood and accepted.

Funding agencies try to push LB approaches through the government machinery, while the recipient institutions view this as being imposed on them.

Some factors that hinder the development of LBT are:

1. Lack of awareness at all levels.
2. Experiences are not disseminated.
3. Available skills are not contributing to influencing decision-making; this needs concerted efforts from engineers.
4. Lack of skills.

To promote LBT the following should be done:

- Promote LBT beyond national level to local level where the decision-making process starts. If the grass roots are aware of the importance and benefits of LBT for their economic development they will demand it from their politicians.
- Disseminate experience: The initiative by the ILO to produce a Source Book on LBT will contribute towards promotion of LBT.
- LBT practitioners should develop an attitude of activism.



- Target promotion and influence beyond the people in power.

Recommendations

In conclusion, Mr. Shuva encouraged the participants to:

- Initiate pressure groups to press for LBT inclusion.
- Establish awareness campaigns at all levels.
- Develop skill at all levels of training.
- Take LBT as a best solution to solve poverty problems.

Plenary questions and clarifications

Q: Clarification was needed as to why the authors refer to the choice of equipment-based versus LBT as a myth.

A: Experience has shown that people believe equipment-based construction is much quicker. Nevertheless, LBT is environmentally sustainable and can be used to address issues of poor drainage on hilly terrain or solid waste management.

Q: Nepal is a mountainous country - how does this affect the LBT?

A: As there is no flooding on the hilly terrain, it helps roads constructed with LBT last longer.



7.2 Labour-based application within changing times - A long-term practical experience from Morogoro Region, Tanzania by Eng. B. L. Karumuna and Eng. F. Mbiliyi

Eng. Karumuna presented the paper.

The paper reported on two-decades of experience of the Swiss Development Cooperation (SDC) funded road project in Morogoro Region.

7.2.1 PROJECT DESCRIPTION

The 1st Period (1980 - 1990)

During this period, Kilombero and Ulanga Rural Roads Project were implemented. This covered maintenance of 785km of rural roads using a LBT and low equipment mix. About 1000 labourers were employed. A total of USD 28 million was used during the entire project of which about USD 3.1 million was spent on labour wages/ costs. The LBT periodic and routine maintenance works over the last five years provided about 610,000 workdays - an average of 122,400 workdays per year.

The 2nd Period (1990 - 2000)

During this period, three phases of the Morogoro Roads Support Programme (MRSP) were implemented. The project covered the entire Morogoro Region. About USD 51 million was used to rehabilitate 1,330km of roads and 76 bridges. The project introduced a petty contracting system - about 300 petty contracts were executed each year.

The 3rd period (2000 - 2003)

During this phase, the focus was on rural access and covered 1,930km of district roads and 2,760km of feeder roads. The project also provided limited support to TANROADS Regional Manager's Office in Morogoro.

The project has fully adopted LBT and a Local Resources Based Approach (LRBA). Gender and HIV/AIDS issues were addressed in all activities. Participation of the local community was enhanced.

The findings of a study carried out in August 2002 on impact of LBT on poverty reduction in the area along three rehabilitated roads indicated:

- About 700 people were employed out of 8100 employable people i.e. about 9% of productive population, however income earned directly benefited about 45%.



- Income of villagers employed rose between USD 5 - 20 per month to an additional USD 33 - 45 per month.
- Skills were acquired for sustainability and enhanced the utilisation of idle or under-utilised human resources.

7.2.2 MAJOR LESSONS LEARNED

- LBT approaches have impacts on poverty reduction due to opportunities of job creation and cash injection to the local community.
- Community participation can lead to more transparent decision making process.
- Information on HIV/AIDS can easily be disseminated through an integrated and participative work approach.

Plenary questions and clarifications

Q: Why was an equipment-mix used in the construction and who supplied the equipment?

A: SDC supported Morogoro region to establish an equipment hire unit. The project hired equipment from this unit.

Q: Why was no data on the living standard of the communities that received the project provided?

A: Data on living standards is not available. This was attributed to the fact that poverty is not easy to understand. A poverty monitoring system is lacking.

Q: The Morogoro projects have been funded since 1980 by a donor agency - are they sustainable?

A: The project is in the process of discussing with Road Fund on how funds for maintaining roads beyond the project period can be accessed.

Q: Most evaluations of projects on poverty reduction have concentrated on analysing how much employment/income has been created there is no analysis on spending pattern.

A: A study has been commissioned to study expenditure pattern. SDC has also started an initiative to expand income-generating activities.



7.3 Labour-based technology in feeder road rehabilitation and poverty reduction - The Ghana experience by S. K. Ampadu, H. Danso, M. Mensa and A. K. Ashong

Dr. Ampadu presented the paper on behalf of the authors.

7.3.1 BACKGROUND

Dr. Ampadu provided background information on the environmental, demographic, economic and trade profiles of Ghana. He proceeded by linking poverty with unemployment and emphasised how difficult it is to get a good definition of poverty. He quoted the World Bank definition of poverty as being:

“A multi-dimensional phenomenon, encompassing inability to satisfy basic needs, lack of control over resources, lack of education and skills, poor health, malnutrition, lack of shelter, poor access to water and sanitation, vulnerability to shocks, violence and crime, lack of political freedom and voice”

Poverty reduction has become one of the most important issues on national and international agenda. Ghana has developed a national poverty reduction strategy known as Ghana Poverty Reduction Strategy (GPRS). Under GPRS, poverty has been defined as unacceptable psychological and social deprivation. The objective of GPRS therefore is to ensure sustainable, equitable growth, accelerated poverty reduction and the protection of the vulnerable and excluded within a decentralised democratic environment.

7.3.2 THE GHANA LABOUR-BASED PROJECT

The Ghana Labour-based Project was a World Bank sponsored four-highway project with funds from IDA, UNDP and the Government of Ghana. ILO provided the technical support. The project can be broken into the following phases:

- Pilot phase (1986-1988)
- Demonstration phase (1990-1994)
- Replication/Dissemination phase (1994-1998)
- Introduction of Maintenance Performance Budgeting System (MPBS) in 1993

The Ghana project focussed on the role of the private sector.

7.3.3 IMPACTS

The types of roads typically rehabilitated with LBT are low volume roads found in rural settings. The following impacts have been



observed on some roads in the Brong-Ahafo, Northern, Upper East and Upper West regions:

- The sales/output ratio for major crops grown in the road corridor was higher in the improved corridors than in the control corridors.
- Control roads recorded statistically significantly higher crops storage losses than improved corridors.
- There was significant price differential in agricultural produce.
- On control roads, head loading and tractor services predominated but on improved roads trucks were the main means of transport.
- There was transport cost savings as a result of the modal shift.
- There was some savings in the actual expenditure on transport costs.

7.3.4 CHALLENGES

The following problems were encountered:

- Scepticism among engineers and other managers towards LBT.
- The threat to equipment based contractors and heavy equipment dealers.
- Lack of clear policy on labour-based technology.
- Management of the equipment loan facility and the granting of securities to contractors by local banks.

Plenary questions and clarifications

Q: The Ghana project started in 1986. What are the contractors doing now? Do they have enough work to do? What strategies are in place to ensure that they are used?

A: Some contractors are still involved in LBT projects. There are enough jobs for them since there is strategies put in place to sustain LBT contracts. Although there is no LBT policy there are specific projects earmarked for LB contracts. In the road fund budget there is a component to pay for LBT. To ensure that there is continuous work 20% of works are earmarked for LBT. There is also an incentive that gives 10% marginal preference for contractors who show that they will use LBT.



7.4 Alternative to conventional gravel wearing courses on low volume roads by Philip Paige-Green and John Hongve

Mr. Paige-Green presented the paper. The paper focused on “Gundo Lashu” the Labour-based Rural Roads Maintenance Programme in Limpopo Province, South Africa.

7.4.1 PROGRAMME DESCRIPTION

The Government of South Africa in December 2002 resolved to use labour-based approaches in public works in an attempt to bring more people out of poverty. The programme was intended to train 24 contractors in rehabilitation of rural gravel roads. It was hosted by the National Department of Public Works.

South Africa has many rural gravel roads that carry up to 1000 vehicles per day (vpd), and the provincial roads carry between 100 and 400 vpd.

The delivery of a quality road is an important factor for the acceptance of labour-based road works. The constraint in the programme was therefore to find a good wearing course in the area and this resulted in a cost of about USD 29,000 per km. A continuation of re-gravelling was seen as a major threat to the general acceptance of LBT. The consulting engineers and project managers considered the lack of availability of a wearing course as a major problem, therefore a study was carried out to find an alternative to provide a good wearing course. The objectives for this study were to:

- Assess the different alternatives which are good quality but cost effective.
- Carry out full-scale trials of the recommended options.
- Establish best practice construction and maintenance technique and develop guidelines.

The study showed that better use and/or improvement of in-situ material by emulsion or chemical stabilisation in combination with low cost bituminous seals could be cheaper than the gravel option. Use of sand cushioning was also a favourable alternative where the gravel specifications could not be met. Apart from cost reduction, the other benefits were the elimination of dust pollution, reduced negative environmental impacts and reduced use of valuable gravel deposits.

The authors cautioned that the use of these alternatives require a slight review of the construction techniques. For example:

- It is essential that effective side drains be constructed with invert levels at least 300 - 450 mm below the pavement.



- The materials must be as uniform as possible.
- All gravel should be compacted to refusal for the plant available rather than to a specified density
- A good maintenance capacity must be in place.

A case study of Bochum cluster roads indicated a reduction in construction costs. Economic analysis indicates that all options except the sealing material and paving imported materials are beneficial and total saving generally exceeded the difference between construction costs of any section of the road.

Plenary questions and clarifications

Q: There is mention of inclusion of disabled people, who are these and what were they deployed for?

A: There were no people bound to wheelchairs, i.e. there was no one with severe disability.



7.5 Group discussions

7.5.1 IMPACT OF POLICY ON USE OF LBT FOR POVERTY REDUCTION

The seminar identified the following ways of measuring the impact of policy on use of LBT:

- Increased funding
 - o Increased number of LB contracts
 - o Continued application of LBT
 - o Streamlined LBT in government budgetary system
 - o Funding attracted to LB works
 - o Increased incomes derived from LBT activities
- Training and development
 - o LBT training in institutions of higher learning
 - o Institutionalisation of LB training
 - o Capacity building of communities
 - o Growth of local contracting industry
 - o Less reliance on foreign contractors
- Policy awareness/promotion
 - o Increased awareness of HIV/AIDS and occupational health and safety
 - o Information dissemination within communities about LBT
 - o Quick response by communities during implementation
- Strengthening of local manufacturing industry
 - o Reduced investment in purchase of heavy equipment
 - o Foreign exchange retention as local appropriate technology is used
- Others
 - o Sustainable information sharing
 - o Availability of legal backing
 - o Enable preparation of strategies

7.5.2 CHALLENGES AND OPPORTUNITIES FOR POLICIES TO INCREASE THE USE OF LBT FOR POVERTY REDUCTION

The seminar discussed and identified the following challenges and opportunities for policies to increase the use of LBT.

Challenges

The following were identified as challenges that need to be overcome for policies to have influence on LBT uptake:

- LBT awareness



- o Understanding of the policy by decision makers is still low
- o Inadequate acceptance of LBT by policy makers
- o Community awareness of LBT is still low
- o Awareness of other stakeholders of LBT is still low
- Improved policies
 - o No clearly defined policy
- Cultural barriers
- Lack of commitment among policy makers
- Poor attitudes towards LBT among
 - o Politicians
 - o Engineers
 - o Beneficiaries
- Lack of institutional framework on LBT
- Lack of monitoring indicators
- Poor co-ordination
- Capacity:
 - o Lack of willingness to provide capacity
 - o Lack of capacity to implement policy into results
 - o Inadequate resources to enhance LBT policies
 - o Lack of clear budget system to accommodate LBT
 - o Inadequate legislation for the smooth implementation of LBT policies
 - o Lack of guaranteed steady funding of LBT projects
 - o Lack of pressure groups (to do lobbying for the enhancement of LBT policies)

Opportunities

The following opportunities were identified:

- Employment opportunities
- Labourers paid fair wages
- Improved economic status of poor workers
- Available workforce
 - o Women's participation assured
 - o Disabled people may participate
- Improved capacity to manage LBT
- Presence of accredited training institutions for LBT
- Increasing political interest and technical exposure
- Financing of LBT within national budgets
- Expansion of LBT to cover entire construction industry
- Evidence of quality output documented and disseminated



7.5.3 WAYS OF SUSTAINING IMPLEMENTATION OF POLICY FOR LBT FOR POVERTY REDUCTION

The seminar identified the following ways/methods to sustain the implementation of policy for LBT:

- * Government level support
 - o Establish a focal coordinating unit
 - o Make policy review
 - o Sensitisation of decision makers
 - o Multi sectoral approach
 - o Commitment from the government
- Legal framework
 - o Realign policy and objectives during review to ensure that they are adequate for continuity
 - o Requirement for timely feedback to policy makers on the performances of the LBT policies
- Stakeholders
 - o Identification of stakeholders
 - o Ownership of policies
 - o Involvement in policies and dialogues
 - o Co-ordinating of stakeholders and their commitments

7.5.4 KEY STRATEGIES IN POLICIES TO SUPPORT THE UP-SCALED USE OF LBT FOR POVERTY REDUCTION

The seminar discussed and identified the following key strategies in policy to support up scaling of LBT:

- Incorporate LBT in poverty reduction strategies
- Create an enabling environment
 - o Government commitment
 - o Creating awareness
 - o Advocacy
 - o Capacity building
- Create an enabling environment for the private sector
 - o Multi-cultural approach to LBT issues
- Create awareness of new opportunities (at all levels) through
 - o Civil education
 - o Communication strategy
 - o Information dissemination
 - o Creation of political will
- Create commitment (by all key stakeholders)
- Decentralization of :



- o Decision making
- o Funds (loans) allocation
- Clear investment policy
 - o Guarantee long term market
 - o Procurement system
 - o Capacity building
 - o Access to equipment (hire purchase)
 - o Access to capital
 - o Public/private partnership



8 Site Visits

The third day of the Seminar was reserved for site visits. Presentations were given and a 15-minute video show before the field visits to brief the participants on the various sites. During the site visits, participants were asked to consider a number of questions and issues, which they discussed in groups on returning to the conference centre. The groups gave their findings and recommendations to representatives from the sites i.e. TANROADS and the Arusha Municipal Council.

The following is a summary of background presentations, description of sites and group feedback.

8.1 Background presentations

8.1.1 UP-SCALING THE USE OF LABOUR-BASED TECHNOLOGY IN TANZANIA, BY LAURENT MWESIGWA KYOMBO

There is a need for harnessing techniques that optimise employment opportunities in Tanzania where poverty levels are high, the total area large, i.e. 945,000 km², and the road network is about 85,000km.

A programme document has been developed by the MoW to take labour-based approaches to scale in the country. The programme aims to:

- Capture the proved and accepted concept
- Support driving national policies
- Replicate, spread and utilize gained expertise
- Promote a common, nationally guided, coordinated and monitored approach.

The development objective of the programme is to contribute to economic development and poverty reduction by creating employment in infrastructure investments and optimising the use of local resources with emphasis on LBT.

The immediate objectives are:

- Formulation, adoption and publication of a national policy
- Expansion of knowledge and capacity building in public and private sectors
- Creation of an enabling environment for the use of LBT

The immediate strategy is “Application of LBT on dedicated sections of infrastructure (roads) through declared percentage of plans and budgets.”

The longer-term strategy is that “The use of LBT becomes an automatic part of decision making.”



At the end of the project, it is expected that the outputs of this programme will change attitudes and bring rapid increase in the use of LBT.

Expected achievements

The expected achievements include:

- Accessibility and income opportunities improved for communities
- Cost-effective and efficient use of LBT
- Capacity built on planning and application
- Appropriate decisions made on technology choice
- Use of local resources further researched and developed

Sustainability will depend on:

- Committed involvement of all actors
- Continued application as part of normal planning, budgeting and implementation processes
- Provision and monitoring of dedicated allocations
- Continued collaborative support and mobilization of resources

The envisaged organisational structure consists of a National Steering Committee, National Focal Points and a Linking Team. The above set up will link policy, knowledge and programmes to create an enabling environment for implementing LBT.

Challenges

The programme is faced with the following challenges:

- Acquiring and achieving political backup and involvement
- Private sector involvement and support
- Dissemination and replication into other sectors

8.1.2 THE LOCAL RESOURCE BASED APPROACH (LRBA) TO ROADWORKS BY ENG. F. T. MARMO

TANROADS recognises the achievements resulting from the application of LBT and has adopted the concept for a Local Resource Based Approach (LRBA) to roadworks to further the application of LBT. Local resources are defined to include:

- Human resource including local government, private sector, NGO and community institutions, local entrepreneurs such as contractors, consultants, industrialists and artisans;
- Local skills;
- Locally made or intermediate equipment;
- Local materials such as timber, bricks and marginal materials; and
- Locally raised finance or provision of materials or services in kind.



The objective of LRBA is therefore to integrate and utilise locally available resources and work methods on trunk and regional roads network where this is technically and economically feasible.

Suitability of the LRBA

LRBA will be utilized in high impact areas that give immediate results. These include:

- Trunk road and regional road (approximately 50 to 300 VPD) maintenance;
- Spot improvement i.e. opening of dormant roads and periodic maintenance;
- Rehabilitation of regional gravel and earth roads;
- Full construction of regional gravel and earth roads; and
- Alternative pavement works for roads/ sections where gravel is scarce or not cost effective.

Implementation process

The programme includes implementation, support and steering, and management components.

The implementation is being phased as follows:

- Planning and preparation during FY 2003/04
- Physical implementation from FY 2004/05 onwards
- Consolidation and expansion after FY 2004/05 onwards
- Capacity development during preparation and implementation phases from FY 2003/04 onwards

The road works operation of the programme targets to cover 7,882km of trunk and regional roads in identified regions. It is anticipated that about 50-60% of cost will be spent on routine maintenance; and approximately 6,800 jobs will be created annually.

The project is expected to build capacity in the following ways - about 150 TANROADS staff will be trained in LB methods. Areas of training will include contract documentation, specifications and standards, works planning, site administration, procurement, supervision, production and consumption norms, etc.

About 200 contractors will be trained. TANROADS will provide sites for training of contractors and allocate funds in accordance with MoW and Regional Fund Board (RFB) agreements

Training programme will be developed under the initial phase of planning and preparation in FY 2003/04.



8.1.3 DEVELOPMENT AND TESTING A MANUAL LIMESTONE CRUSHER BY E. ELISANTE, A. ITIKA, R. WAKATI AND J. HANGO

The presentation was made Dr. Karoli Njau on behalf of the researchers. The presentation informed the participants on the design and working principles of the manual limestone crusher, which was designed and manufactured by the University of Dar es Salaam (UDSM).

Objectives

The target group for this unit are LBT practitioners, small-scale miners and the low-cost housing sector.

The objectives of designing and manufacturing the manual crusher are to:

- Improve productivity of small-scale miners
- Provide equipment and appropriate technology
- Create entrepreneurial alternatives

Expected outputs include:

- Improved productivity and income of small-scale miners
- Employment generation
- Reduced hardships, drudgery and hazards for artisanal miners (predominantly women)
- Technology transfer to local industry

Achievements and constraints

Achievements to date include:

- Prototype successfully designed and manufactured locally
- The innovation won the African Intellectual Property and Technology Award

The main constraint is adequate finances for labour, materials and testing resources.

Plans for the future include:

- Soliciting funds for testing and dissemination
- Further field tests and improvements
- Technology dissemination and transfer

Acknowledgements

- UDSM for funding the initial research and development work
- ILO/ASIST-MoW for facilitating the exhibition at the seminar
- ATTI-MoW Mbeya for logistical support
- BRELA-COSTECH for Best Innovation Award



8.1.4 TANROADS SITES

Eng. Abraham F. Kisimbo, TANROADS Arusha, made this presentation.

Background to sites

The two different types of TANROADS sites to be visited were:

- Routine road maintenance by petty/village contractors
- Spot improvement by a labour-based contractor

A presentation on the sites was given which started by introducing the geographical and social characteristics of the Arusha Region. He summed up his introduction by observing that poverty is a major phenomenon especially in rural areas. He attributed this to:

- Lack of appropriate technology in agriculture, animal husbandry and mining resulting in low productivity.
- Lack of sufficient capital to invest in agriculture, commercial and industrial ventures and mining.
- High illiteracy and ignorance among the people.
- Nomadic lifestyle.
- Environmental degradation.
- Inadequate participation and involvement of local communities in development activities.

One of the poverty alleviation measures taken by TANROADS is to utilise up to 20% of the road works budget for carrying out spot improvements in maintenance by LB methods. 250km of road has been identified for the routine maintenance and 6.5km for spot improvement.

Road maintenance by village contractors

TANROADS has decided to use petty/village contractors engaged on fixed sum contracts for road maintenance after having trouble with employing labourers on a daily basis. The availability of labourers was not reliable as contracts were irregular and there was lack of ownership.

Achievements and constraints

The achievements of the approach include:

- The petty/village contractors report promptly on all unusual happenings on their road section (e.g. accidents, theft of road structure, oil spillage, mud over flowing, unusual obstacles, etc.).
- Roads are kept neat and free from bushes.
- Employment opportunities to local communities.
- The cost per month is less compared to registered contractors (i.e. Tshs. 37,000 - 68,000 per km compared to Tshs. 273,000 per km)



Constraints encountered include:

- Requirement of active supervision at road inspector level.
- Recruitment of contactors can be carried out unfairly.
- Lack of ownership as registered contractors are not necessarily from the project area.

Lessons learned

- Officers of the Regional Tender Boards should be made aware before the system begins.
- Men and women are equally competent.
- The concept of a long term contract with regular long term income is a major motivation.
- Short contracts of six months should be given to assess the competence of the contractor before entering in long term contract.
- Provision of tools initially on loan may be essential for a smooth uptake of the system.

Spot improvement by a labour-based contractor

The Tanganyika Packers - Losinyai road is 30km long and carries less than 15-40 vehicles per day. On completion, it is expected to carry on average 50 vehicles per day. A total length of 6.5km is being rehabilitated with an employment potential estimated at 11,000 person days. The employed labourers living along and nearby the road corridor will develop their skills in road rehabilitation through participation in actual rehabilitation activities.

8.1.5 GROUP FEEDBACK

Description of what was seen on the site

- Origin of workers (75% local population, 25% from other regions)
- Gender (> 50% women)
- Contractual approach (Outsource to private sector, task rates)
- Age: No child labour (age ranged between 20-40 years)
- Wages: TShs 1,500 /day (USD 1.5), which is fair
- Payments made every two weeks
- Public awareness: Public well informed prior to start of project
- Working condition: Task rate system, well managed: safety issue should be considered
- Wages seem to be used as cash injections to households. Assumed impact on households poverty levels.
- The kind of work being done included road formation and culvert excavation for installation.



Recommendations for TANROADS to increase impact on poverty of their LBT works

- Use workers also for maintenance (continuation of employment opportunities).
- TANROADS should advise labourers how to spend wages, e.g. save for further business or the purchase of seeds etc.
- TANROADS should carry out a poverty impact study
 - o Baseline
 - o Direct impact of LBT work
 - o Impact of improved road/access
- TANROADS should continue to make use of already trained LBT contractors.
- TANROADS should consider HIV/AIDs (and possible other health related issues) sensitisation in collaboration with relevant authorities.

8.1.6 UNPLANNED SETTLEMENTS IMPROVEMENT IN ARUSHA MUNICIPALITY (USE OF LBT FOR POVERTY REDUCTION)

Background to sites

Ms Juliana Letara of the Sustainable Arusha Programme (SAP) gave an introductory presentation.

Unplanned settlement development is one of the major challenges of the Arusha Municipality as it covers 75% of the total built up area. The Municipality does not have the economic capacity to deal with this challenge and hence opted for the utilisation of LBT. Two demonstration sites were selected to test the viability of the concept. The sites areas selected were Alinyanya/Sanare in Daraja Mbili ward and Majengo in Elerai Ward.

The Environmental Planning and Management process was adopted. This is a process, which involves different stakeholders identifying the environmental challenges, setting priorities and agreeing on strategies to solve them. It is based on enabling participation and building commitments and partnerships between key stakeholders, to bring about sustainable development.

The project is to be financed through European Development Fund (EDF). The activities will be carried out using community contracting, whereby the community members are contractors, therefore they will be responsible for implementation of the works. Adoption of LBT is expected to achieve the following:

- To offer opportunity to the residents of the areas for construction jobs.
- To provide opportunity to utilise available local resources.



- Maximise benefits within the community and reduce poverty by establishing income generating activities through provision of materials to project.
- Capacity building.
- Creation of sense of ownership.
- Maintenance support of the assets developed even after the project support period.

8.1.7 GROUP FEEDBACK

The seminar participants gave the following feedback to representatives of Arusha Municipal Council and Sustainable Arusha Programme.

Challenges faced by the residents of the unplanned settlements

- No access to potable water
- No proper sanitation facilities
- Poor garbage and solid/liquid waste management (disposal site is lacking)
- Poor access roads and drainage
- Lack of social services e.g. schools, clinics, etc.
- Lack of electrification - poor lighting in the settlements
- Prioritisation of services required
- Defining the access roads to be upgraded
- Congested houses (unsafe and health)
- No access by vehicles
- No play ground for children
- Over crowded
- Prevention of outbreak of diseases
- Lack of public services
- Resistance to cultural changes
- Breeding ground for criminals

Self help initiatives observed

- Construction of storm water drainage
- Construction and use of pit latrines (adopted standards for building latrines)
- Water storage facilities
- Identification of central common area for dumping solid waste
- Provision of a kindergarten
- Provision of recreation facilities
- Formation of a CBO
- Have a tax system
- Attempts to keep the place clean



- Small narrow access pathways have been constructed
- Willingness to give part of their veranda for construction of road
- Recreation area, opening of small bars and childrens play grounds
- Access to social services (there are no hospital, dispensary, schools within the area)

Opportunities for using LBT to improve the settlements

- Construction of access roads and foot paths/bridges
- Construction of new drainage structure
- Reconstruction of open drainage
- Maintenance of infrastructure
- Solid waste management (collection and disposal of solid waste)
- Construction of decent housing (low cost houses)
- Water supply schemes
- Sanitation (improved pit latrines)
- Water kiosks (plan and re-settlement)
- Create opportunities for sustainable work, institute construction of roads with LBT
- Information on technology e.g. to build VIP (Ventilated Improved Pit latrine)
- Health education

8.1.8 SOMBETINI QUARRY

Ms Juliana Letara of the Sustainable Arusha Programme gave the presentation.

Background to site

Quarrying of gravel and stone in Arusha Municipality is mainly carried out in Elerai Ward by private firms and organised groups of women and youth. About 800 persons are self-employed in the activity. The quarry is on an area of about 15-20 hectares of land. However, the Municipal Authorities are in the process of closing down the Sombetini quarry and shifting the quarrying activities to Meserani, which is about 30km from Arusha.

A truck of aggregate from the quarry costs about Tshs. 28,000 - 30,000 per seven-ton truck (the same volume costs Tshs. 70,000 - 90,000 from private firms). However, significant environmental degradation threatens the residential area.

8.1.9 GROUP FEEDBACK

The seminar participants gave the following feedback to representatives of Arusha Municipal Council and Sustainable Arusha Programme.



Impact of the quarrying activities

Positive:

- Employment creation (source of employment)
- Organised groups
- Reduction in crime
- Supports construction industry (source of construction material)
- Savings concept among miners
- Revenue to municipality through ward collection
- Visible division of labour (activities skewed more towards women's employment)
- Gender balanced

Negative:

- Unsafe environment (the business is risky)
- Environmental hazards
 - o Soil erosion
 - o Dust
 - o Land slides
 - o Mosquito breeding grounds
 - o Refuse - indiscriminate dumping
 - o Aesthetics
 - o Noise pollution
- Occupational hazards
 - o Exposure to accidents from rock fall, flying particles
 - o Personal protective gear are not used
 - o Absence of ablution facilities
 - o Poor working conditions
- Social
 - o Job insecurity
 - o Conflict of interest
 - o Output does not match labour input
 - o Low wages (less than national minimum wage)
 - o Lack of social protection
 - o Shift of tasks at household level, children out of school

Impact that moving the quarry location would have

Positive:

- Properly managed quarry
- Use of appropriate methods of extracting the rock
- Current site rehabilitated
- Possible environmental benefits
- Environmental degradation in the current quarry will be halted
- Conflict of interest will be solved



Negative:

- Transport of workers to relocated site (relocation)
- Loss of employment and income for some of current workers (no guarantee for work opportunities for the same workers)
- Increased price of aggregates due to distance (transport costs)
- Expensive to move the quarry
- Possible environmental dis-benefits

Impact of introducing a stone crusher

Positive:

- Better quality aggregates
- Increased productivity and hence incomes
- Less exposure to accidents and health risks
- Production will increase and variety size of materials

Negative:

- Loss of employment (number of workers will be reduced)
- Noise pollution (from explosives and crusher)
- Increased operation costs
- Increased cost of production
- Material would be exhausted very fast

Recommendations to Arusha Municipal Council on improving the quarry

- Educate on mining work place safety and occupational health
- Address environmental issues
- Proper work methods on planning/organising
- Minimum wage rate and labour regulation should be observed
- Marketing (fixed minimum selling/buying rate)
- Improve working environment
- Provide other skills to earn income through other means
- Provide sanitation facilities
- Provide technical support from Municipal
- Capital investment (banks)
- Social protection
- Marketing
- Close and restore the current site
- Encourage use of personal protective equipment
- Local authority to provide expert advise on safe mining methods
- Assistance with low costs labour saving equipment (and credit scheme)
- Provide first aid kits



9 Follow-up to the 9th Regional Seminar and the Maputo Statement

The theme of the Ninth Regional Seminar held in May 2002 in Maputo was “Towards Appropriate Engineering Practices and an Enabling Environment.” The findings and recommendations from four days of discussion and deliberation were encapsulated in the “Maputo Statement” under four broad headings as follows:

- Technical
- Contracting
- Social
- Institutional

Terje Tessem, of ILO EIIP, made a presentation of the Maputo Statement and asked participants to indicate what progress/actions their countries have taken in relation to issues. Participant feedback is outlined below:

Institutional aspects

- National policy units and knowledge centres to be established: Tanzania was cited as an example where:
 - o Policy framework in place
 - o Knowledge management is implemented through cooperation between public and private sector
 - o Multi-sectoral application of LBT in response to identified needs
 - o Prioritisation planning for works has been simplified
 - o Local consulting companies along with contractors are involved in LBT
 - o Decentralisation, community involvement (planning and implementation) and local financing (alternatives to donor dependency) also for maintenance

Social issues

- Procurement procedures (national/international):
 - o A study of the experience with targeted procurement in South Africa was carried out.
 - o Country procurement assessment review was undertaken in Ghana.
 - o HIV/AIDS toolkit for inclusion in contracts (transport projects) was developed by UNAIDS and is available.
- Promotion and monitoring of labour standards:
 - o Sourcebook on implementing ILO employment and labour standards in construction projects developed by DFID.
 - o World Bank Fiduciary management of community driven



development training developed.

- Gender issues and mainstreaming: Little evidence of what has happened since Maputo seminar was available.

Technical issues

- Solid waste and employment creation
 - o Generally, two areas of interest for employment creation are collection and disposal. Solid waste collection activity is regarded to be the main focus for employment creation efforts.
 - o Tools and equipment use is regarded to be a critical area of focus for the sustainable solid waste management works. o o
- Engineering practices and life cycle costing
 - o Improved use of local resources (materials, etc.) - use of local raw materials has been demonstrated during the seminar presentation e.g. the presentation from South Africa. The seminar was also informed there is a research activity within SADC looking into alternative surfacing materials.
 - o Research work of engineering standards - The seminar was informed that there is an increased application of LB methods of work through appropriate standards. Currently there is a research project going on that involves several African countries to establish the life cycle costs. The countries have been selected to represent varied conditions of application.
- Best practices documentation and dissemination
 - o Transport Research Laboratory (TRL) Overseas Road Notes have been updated and new ones produced.
 - o ILO ASIST Source book on employment-intensive investments (under development)o

Contracting issues

- There is a need for policy and strategy to address the demand for the contractors' services.
- Best practices in financing, which will be addressed through:
 - o Sourcebook under development
 - o Leasing development work: lending agencies and contractors - the seminar was informed that a source handbook for contractors has been produced
- There is a need for training material tailored to local conditions and diversification beyond road works.



10 The Future of the Regional Seminars

Mr. Terje Tessem, ILO EIIP, lead a discussion to assess the relevance and need for the regional seminar.

Policies influencing employment and labour policies in the construction industry require tripartite partnership, awareness raising, research studies (best practices, potential and impact) and action programmes. In order for actions to be taken, practitioners (government, private sector and communities) need guidelines/ training courses, manuals and information exchange and networking.

The original objectives of these seminars, included:

- Networking
- Sharing experiences
- Identifying issues of common interest for further development

Does the seminar still play this role?

- Is this type of networking function still needed?
- Does the seminar provide a forum for experience sharing?
- Do we as participants contribute to knowledge development of labour-based technology?
- Are we missing something in the objective? (given the changes in the environment?)

Currently the seminars are organised in such a way that the Host is responsible for all aspects of seminar organisation and conduct including selection of the seminar theme, programme preparation, paper selection, invitations, etc. ILO plays a supporting role:

- o “Carrying the baton of the relay race” i.e. from one host to another
- o Assists with promotion and advertising
- o Assists with paper selection, programming, and in conducting the seminar
- o As co-guarantor with the Host

The ILO is available to continue this role.

Mr. Tessem raised the following questions:

- Do we have sufficient justification to continue with the regional seminars? If yes, what should be the substance of the seminars be? how should they be financed? and how frequently should they be held?
- Do we continue with the current division of labour between the Host and ILO?
- Are there interested Hosts?
- Should there be a move towards (truly) inter-regional seminars?



The Response

The seminar participants agreed that the regional seminars are still relevant and useful although there was a strong urge to diversify from road works as LBT also has relevance in other fields of economic development. It was reaffirmed that the current relationship between host country and ILO is the best arrangement. The seminar participants also maintained that an eighteen-month cycle for the regional seminars should be maintained. Research and development was considered important to ensure LBT remains relevant and addresses the immediate needs of the society.

10.1 Nominating the host country for the 11th seminar

Representative from Kenya, Malawi and Ghana gave presentations promoting their countries as potential hosts of the 11th regional seminar.

The participants voted on their preference. The results of the vote were:

Ghana: 28

Kenya: 76

Malawi: 51

Kenya was declared the winner and host for the next regional seminar!



11 Seminar conclusions: The Arusha Statement

On the last day of the seminar, the Arusha Statement was formulated. After a lengthy deliberation, the following text was approved.

The 10th Regional Seminar for Labour-based Practitioners

13th - 17th October 2003

Arusha International Conference Centre, Arusha, Tanzania

Preamble

The 10th Regional Seminar for Labour-based Practitioners was held in Arusha, from 13th - 17th October 2003 under the theme "Labour-based Technology for Poverty Reduction." The objectives were to:

- Investigate the true impact of labour-based technology on poverty
- Collate an evidence base
- Identify key ways in which the impact of labour-based technology on poverty can be maximised.

210 participants attended the seminar from 24 countries. Fourteen papers were presented and discussed in six sessions under the following sub-themes:

- Infrastructure provision through LBT
- Involvement of community and private sector
- Contracting and labour standards
- Policy and up-scaling of LBT

The paper presentations and discussions were complemented with field visits to labour-based (LB) activities, namely Sombetini Quarry, Unplanned settlements of Alinyanya/Sanare, Kijenge and Majengo areas, Tanzania National Roads Agency (TANROADS) sites - spot improvement of Tanganyika/Packers-Losinyai road and routine maintenance on Moshi-Arusha highway.

HAVING deliberated on pertinent issues on LBT for five days focusing on the following key issues:

- Impact
- Challenges and opportunities
- Sustainability
- Key strategic issues

RECOGNISING the potential of LBT in poverty reduction through provision of infrastructure and services, employment creation and income generation, with opportunities for involvement of community and private sector;



COGNISANT of the link between poverty, the high rate of unemployment and the poor access to infrastructure and services;

TAKING NOTE of the accumulated experiences and success stories of pilot LBT projects and programmes that have been reported in this and previous regional seminars and realising the need for furtherance of LBT vs. poverty reduction impact analysis understanding;

ENCOURAGED by the appreciation of the seminar participants of the contribution of these regional seminars in experience sharing, networking and sharing issues of common interest for further development and hence the desire to continue holding of these seminars, and the need for review, evaluation and diversification of LBT practices for enhanced impact;

APPRECIATING the technical and financial interventions of our development partners in promoting LBT, and their willingness to continue supporting these initiatives;

REALISING the little commitments by governments slow up scaling and mainstreaming of LBT in development interventions;

CONSCIOUS of the constraints, in terms of technical, financial, institutional framework, equipment and cultural issues that have been affecting the replication of LBT;

NOTING the resolve of governments to improve the livelihoods of their citizens as evidenced by the formulation of poverty reduction strategies and subsequent targeting at achievement of Millennium Development Goals;

The 10th Regional Seminar participants **HEREBY RESOLVE** to promote, maximise and mainstream the use of LBT in the provision of infrastructure and services to contribute to poverty reduction, through implementation of the following strategies:

Creation of Enabling Environment

Policy: Impress upon Governments to put in place/implement relevant policies that will guide the mainstreaming, diversifying and maximising the use of LBT and ensure sustainability of the same. The policies should clearly guide the deployment of local contractors and communities in LBT projects.

Institutional framework: Impress upon Governments the need to create institutions charged and resourced for policy operationalisation and monitoring. The institutions should facilitate speedier implementation of decentralisation of decision-making and resources management, and reducing bureaucracy as regard to LBT practices.

Legislations: Impress upon Governments to put in place appropriate, amend existing and enforce legislations that will guide



procurement procedures that enhance the engagement of LBT, contracting of communities and labour/work standards.

Contracts: Advise the Governments to develop appropriate contract forms/ framework suitable for contracting LBT works taking into consideration special circumstances of the LBT stakeholders.

Incentives: Advise the Governments to remove disincentives or put in place incentive schemes that will promote/maximise the use of LBT. Disincentives to be removed may be in the form of tax favours that favour import of equipment over local manufacturing. Where the local capacity to manufacture is not in place, incentives schemes could include import tax exemption on LBT equipment, tax holidays, tax reductions.

Capacity Building

Education and Training: Impress upon relevant Government Ministries/Institutions of higher learning and other training institutions to introduce, use, integrate and mainstream LBT topics in their relevant programmes. This shall entail development/review of relevant curricula for LBT inclusion and developing tailor made courses for LBT practitioners at all levels.

Research and Development: Encourage and fund labour-based practitioners, research institutions and institutions of higher learning to embark on LBT research and development, and dissemination of research findings and proven technology promulgation of best practices.

Awareness Raising/Advocacy: Undertake to promote the benefits of LBT through lobbying, information dissemination, awareness campaigns on LBT practices to mobilise public opinion and civil society to demand for the same. The awareness and advocacy should also include analysis of barriers against LBT maximisation and mainstreaming.

Resource Allocation

Financial: Governments should put in place financing systems and encourage the participation of local financing institutions that will ensure sustainable access of funds by LBT practitioners. The system should embrace favourable credits/loans schemes, special funds for micro-enterprises, setting aside some percentage of major projects for LBT, etc.

Equipment: Governments through relevant departments should put in place a system of enabling local contractors to access equipment, such as establishing equipment hire schemes, including encouraging establishment of private equipment hire companies.

Linkages: Governments should be advised to put in place a mechanism of linking various projects and programmes related to



poverty reduction to maximise their positive impacts thereby optimising resource utilisation. Linkages should also focus on enhancing networking, management and sharing of information.

Cross Cutting Issues

HIV/AIDs, Gender, Environment and Poverty: We call upon the Governments through their relevant departments and all stakeholders including civil society, to mainstream HIV/AIDs, gender, environmental and poverty issues in all LBT interventions.

THEREFORE, we call upon Governments, the donor community and other stakeholders to take steps to formulate a PLAN OF ACTION. We recommend the 11th Regional Seminar review the progress.



12 Closure of the 10th Seminar

Eng. F. D. Karanja of the Ministry of Roads and Public Works, Kenya chaired the closing ceremony. The Deputy Minister for Works, Tanzania, Hon. Hamza Mwenegoha (MP) attended as Guest of Honour.

12.1 Word of appreciation by the Seminar Moderator

The Moderator, Mr. Edward Mhina, gave an overview of the seminar deliberations.

Seminar overview

The Seminar objectives were:

- Investigate the true impact of labour-based technology on poverty
- Collate an evidence base
- Identify key ways in which the Impact of labour-based technology on poverty can be maximised.

The seminar spread took place between 13th - 17th October 2003 and comprised of the following:

- Five opening speeches
- Fourteen paper presentations
- Group assignments
- Twelve plenary discussions
- One day of guided site visits
- Twelve Moderator led sub-events; etc.

All seminar participants were invited to the seminar dinner on Monday evening at Mount Meru Hotel and to a cocktail on Thursday evening at the Arusha Hotel.

The seminar was attended by 210 delegates from 24 countries in Africa, Asia and Europe.

Seminar process and procedures

The seminar process involved the following basic steps:

- Introduction of the sub-theme by the designated chairperson of the theme
- Paper presentations
- Clarification and questions after the presentation
- Division of participants into working groups for group discussions and deliberation

The discussions focused on four distinct components:

- o Impact on poverty reduction



- o Challenges and opportunities
- o Sustaining impact
- o Key strategies for poverty reduction.
- Presentation and discussion of group findings, under the guidance of a technical chairperson.
- Wrap-up on agreed points in each sub-theme by the technical chairperson.
- Daily round up of seminar proceedings by the moderator.

Seminar output

- Effective strategies for reducing poverty through use of labour-based technology.
- Practical ways to maximise the impact of labour-based technology.
- Mainstreaming of cross cutting issues.
- The Arusha Statement.

The Moderator ended his presentation with the following quote:

“Progress is not perfection, progress is moving forward. You do not have to be perfect. You do have to progress!” author Mr. Kopmeyer, Thoughts to build on: thought power for successful living.

12.2 Closing brief by the Seminar Organizing Committee Chairman, Eng. L. Kyombo

Eng. Kyombo thanked all members of the organising committee and all of those who were involved in the preparation and conduct of the 10th regional seminar. He thanked the Guest of Honour, for accepting to grace the closing ceremony.

210 delegates attended the seminar from 24 countries namely Bangladesh, Botswana, Ethiopia, Ghana, Indonesia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nepal, Netherlands, Norway, Philippines, Rwanda, South Africa, Sudan, Switzerland, Tanzania, Uganda, UK, USA, Zambia and Zimbabwe.

He informed the guest of honour on the development of the Arusha Statement which he read.

He also informed the Minister of the generous contribution of Tshs. 678,500 and USD 261 made by the seminar participants towards improving conditions at the Sombetini Quarry.

He urged the seminar participants to contribute more towards poverty reduction in their countries by implementing the strategies presented in the Arusha Statement.



12.3 Closing speech by the Deputy Minister, Ministry of Works, Hon. Hamza Mwenegoha (MP)

The Deputy Minister thanked the organising committee for inviting him to close the Seminar and thanked the participants of the 9th seminar for having voted Tanzania to host this seminar.

He underscored the importance of this seminar to the process of developing effective policies for poverty reduction. He informed the participants that Tanzania has started the Poverty Policy Week in the very week the seminar was taking place. This forum has a significant contribution to the national initiatives towards achieving development targets as spelt out in the country's Development Vision 2025, the National Poverty Eradication Strategy, the Tanzania Assistance Strategy and Poverty Reduction Strategy Paper. The Poverty Policy week aimed at bringing together the various actors within the Poverty Monitoring System and creating a momentum in poverty reduction efforts that can be built upon on an annual basis. The use of LBT is one of the recognised approaches in all the country's strategies set towards achieving the national goals.

He, however, noted that poverty has many dimensions and a range of survey methods are required to capture them. He urged the participants to focus on pro-poor growth. The theme for this seminar being "Labour-based Technology for Poverty Reduction" is rightly addressing our poverty reduction agenda.

He commended the seminar participants for discussing the important cross cutting issues of HIV/AIDS, gender and environment, etc. The importance of fighting HIV/AIDS pandemic cannot be over emphasised. Since women constitute a large portion of population in the world, their involvement in development programmes especially those dealing with poverty reduction is essential.

The issues of environmental degradation in some of the sites visited needs to be addressed. He assured the seminar participants that the Government of Tanzania is taking steps to do this.

He challenged the seminar participants to strengthen partnerships in exchange and sharing of information and best practices for sustainable poverty reduction activities. He observed that the strength of the poor depends on their unity, determination, commitment and ability to share their locally available knowledge, skills and capability that allow them to integrate external contributions for maximum benefit.

He echoed his appreciation to those people who were involved in one way or another in organising the seminar and he encouraged the visitors to visit tourist attractions around Arusha.



12.4 Vote of thanks by Ms. Ida Thokozile William Manjolo, Director of Public of Works, Malawi Social Action Fund

Ida started her vote of thanks on a light note by assuring the chair and the participants that she was not going to challenge the elections for the host of the 11th Seminar in which Kenya emerged the winner.

She expressed her appreciation on behalf of the seminar participants on the manner in which the seminar was organised and run and thanked Tanzania for accepting to host it.

She observed that the hospitality was tremendous and it made the participants feel at home. She described the food, accommodation and transport as “just exquisite.”

She thanked the organising committee for the dedication and commitment they put into the organisation of the seminar since the signing of the Memorandum of Understanding (MoU) in October 2002. She thanked their respective supervisors in the different government departments and organisations for allowing them dedicate time to perform this duty.

She thanked the sub-committees and the moderators for the good work, the bus drivers and the management of AICC.

She thanked the organising committee for taking a bold step to show the seminar participants what poverty actually is by taking them to where the poor live. The picture might not look good but those are the facts, which we have in our midst and deliberate efforts need to be put in place to solve them.

Ida challenged the seminar participants to be activists of LBT.



Annexes





13.1 Annex I: Previous seminars and themes

Previous seminars have been held in the following countries:

1st Mbeya, Tanzania, 26-28 February 1990

Topics covered: Low cost structures, haulage, training, road maintenance and labour management.

2nd Mhales Hoek, Lesotho, 2-6 March 1992

Topics covered: Road maintenance, contracting, compacting and labour standards.

3rd Harare, Zimbabwe, 27 September -1 October 1993

Topics covered: Tools and equipment, small-scale contractor development, involvement of women in labour-based road works, ASIST Technical Enquiry Service.

4th Johannesburg, South Africa, 16-20 January 1995

Themes: Urban Infrastructure development, education and training.

5th Accra, Ghana, 22-26 April 1996

Theme: Labour-based contracting.

6th Jinja, Uganda, 29 September -3rd October 1997

Theme: The right tool for the job- a review of tools and equipment for labour-based infrastructure works.

7th Lusaka, Zambia, 3-7 May 1999

Theme: Urban Infrastructure development, education and training.

8th Cairo, Egypt, 15-19 October 2000

Theme: The New Millennium - Challenges for Employment-intensive Investments.

9th Maputo, Mozambique, 20-24 May 2002

Theme: Towards Appropriate Engineering Practices and an Enabling Environment.



13.2 Annex 2: Tenth Regional Seminar Programme

Arusha International Conference Centre, Arusha, Tanzania

Saturday 11 th October 2003	
16:00 – 18:00	Early registration at Impala and Arusha Hotel
Sunday 12 th October 2003	
08:00	Visiting Manyara and Ngorongoro Crater (Optional at additional costs)
16:00 – 18:00	Early registration at Impala and Arusha Hotel
Day 1	Monday 13 th October 2003
08:00 – 09:00	Registration at the AICC
09:00 – 10:30	Opening Session (Simba Hall):
09:00 – 09:10	• Welcome by the Organizing Team by Eng. L. M. Kyombo
09:10 – 09:20	• Welcome address by Director of ILO Office for Kenya, Somalia, Tanzania and Uganda, Mr. A. Ibrahim
09:20 – 09:40	• Key note address by Chief Engineer Roads, Ministry of Roads and Public Works, Kenya, Eng. B. Ariga
09:40 – 10:00	• Welcome address by the Permanent Secretary, Ministry of Works Tanzania, Eng. J. Kijazi
10:00 – 10:30	• Official opening by the Minister of State President's Office, Regional Administration and Local Government, Tanzania, Hon. W. Lukuvi
10:30 – 11:45	Refreshment break and group photograph
11:45 – 12:00	Introduction from the moderator
12:00 – 13:00	Plenary Session 1: Presentations on sub-theme 1 (Simba Hall) <i>Chairperson: Eng. J. H. W. Kijazi PS-MOW, Tanzania</i>
12:00 – 12:05	Introduction to Sub Theme 1: Provision of infrastructure and services through LBT
12:05 – 12:20	• Small Contractors Development in Botswana Through Labour-based Routine Road Maintenance by Dr. B. Obika et al
12:20 – 12:35	• Experience of Using LBT in Rehabilitation and Maintenance of District and Feeder Roads – Medium Term Impact on People and the Government of Tanzania by H. Msangi and G. Mujsers
12:35 – 13:00	Questions and Clarifications
13:00 – 14:15	Lunch Break
14:15 – 15:15	Plenary Session 1 (cont): Presentations on sub-theme 1 (Simba Hall);
14:15 – 14:30	• The Government of Malawi/European Union Public Works Programme in Malawi – A Multi-tier Approach to Poverty Reduction and Food Security by A. Lwanda et al
14:30 – 14:45	• Employment Creation Through the Reconstruction of the ENI Highway between Chicumbane and Xai Xai in Mozambique by A. Mughune and R. Geddes
14:45 – 15:10	Questions and Clarifications
15:10 – 15:20	Introduction of Group Discussion by the Moderator
15:20 – 16:15	Group Discussions (Themti, Twiga, Mbuni Rooms and Simba Hall)
16:15 – 16:45	Refreshment
16:45 – 17:30	Plenary Session 2: Reporting Back from Groups (Simba Hall) <i>Chairperson: Kagyina Karuma, Uganda</i>
16:45 – 17:50	• Group 1
16:55 – 17:00	• Group 2
17:05 – 17:10	• Group 3
17:15 – 17:20	• Group 4



17:25 – 17:30	General Clarifications
17:30 – 17:40	Close of the Day 1 by the Moderator
19:30 – 22:00	Welcome Dinner (Mount Meru Hotel)
Day 2	Tuesday 14 th October 2003
08:00 – 08:05	Introduction of Day 2 by Moderator
08:00 – 09:30	Plenary Session 3: Presentations on sub-theme 2 (Mbayuwayu Hall) <i>Chairperson: Ida Manjolo, Malawi</i> Sub-Theme 2: Private Sector and Community Involvement
08:00 – 08:15	<ul style="list-style-type: none"> Community Involvement in Labour-based Upgrading – Urban Experience from Maseru by Mpayo Kasure
08:15 – 08:30	<ul style="list-style-type: none"> Community Centred Investment in Basic Rural Access Interventions – An entry Point to Poverty Alleviation by T. C. Mbara and C. Lema
08:30 – 08:45	<ul style="list-style-type: none"> Opportunities for community Participation in Feeder Road Rehabilitation and Maintenance by M. Knowles
08:45 – 09:15	Questions and Clarifications
09:15 – 09:25	Introduction of Group Discussion by the Moderator
09:30 – 10:30	Group Discussions (Them, Twiga, Mbuni Rooms and Mbayuwayu Hall)
10:30 – 11:00	Refreshment Break
11:00 – 12:00	Plenary Session 4: Reporting Back from Groups (Mbayuwayu Hall) <i>Chairperson: Mondlane Mbongeni, South Africa</i>
11:00 – 11:05	<ul style="list-style-type: none"> Group 1
11:10 – 11:15	<ul style="list-style-type: none"> Group 2
11:20 – 11:25	<ul style="list-style-type: none"> Group 3
11:30 – 11:35	<ul style="list-style-type: none"> Group 4
11:40 – 12:00	General Clarification
12:00 – 13:00	Plenary Session 5: Presentation on sub-theme 3 (Mbayuwayu Hall) <i>Chairperson: Asia</i> Sub-Theme 3: Contracting and Labour Standards
12:00 – 12:15	<ul style="list-style-type: none"> Amadiba Road by R. D. Little
12:15 – 12:30	<ul style="list-style-type: none"> Implementing Labour Standards in Construction by Rebecca Scott
12:30 – 13:00	Questions and Clarifications
13:00 – 14:15	Lunch Break
14:15 – 14:45	Plenary Session 5 (cont): Presentation on sub-theme 3 Sub-Theme 3: Contracting and labour Standards
14:15 – 14:30	<ul style="list-style-type: none"> Nipping Poverty in the Bud Through Appropriate Road Contract Management by R. Mabenga
14:30 – 14:45	Questions and Clarifications
14:45 – 14:55	Introduction of Group Discussion by the Moderator
14:45 – 15:45	Group Discussions (Them, Twiga, Mbuni Rooms and Mbayuwayu Hall)
15:45 – 16:15	Refreshment Break
16:15 – 17:15	Plenary Session 6: Reporting Back from Groups (Mbayuwayu Hall) <i>Chairperson: Kanyhama Dixon-Fyle, Sierra Leone</i>
16:15 – 16:20	<ul style="list-style-type: none"> Group 1
16:25 – 16:30	<ul style="list-style-type: none"> Group 2
16:35 – 16:40	<ul style="list-style-type: none"> Group 3
16:45 – 16:50	<ul style="list-style-type: none"> Group 4
16:55 – 17:15	General Clarification
17:15 – 17:30	Close of the Day 2 by the Moderator
Day 3	Wednesday 15 th October 2003
08:00 – 09:00	Tanzanian Hour including Briefing about site visit



Day 4	Thursday 16 th October 2003
08:00 – 08:15	Introduction of day 4 by Moderator
08:15 – 09:15	Plenary Session 7: Reporting Back on Site Visits
09:15 – 10:30	Plenary Session 8: Presentations on sub-them 4 <i>Chairperson: Girma Berhanu, Ethiopia</i> Sub-Theme 4: Policy and Up scaling <ul style="list-style-type: none"> Filling the Gap between Policy and Practice – Influencing Decision makers to Use Labour-based Technology by Shuva Sharma Labour-based Application within Changing Times – a Long Term Practical Experience from Morogoro Region, Tanzania by F. Mbilinyi and B. Karumuna
09:50 – 10:15	Questions and Clarifications
10:30 – 11:00	Refreshment Break
11:00 – 11:50	Plenary Session 8 (cont): Presentations on sub-them 4
11:00 – 11:15	<ul style="list-style-type: none"> Labour-based Technology in Feeder Roads Rehabilitation and Poverty Reduction – The Ghana Experience by Dr. S. Ampadu et al
11:15 – 11:30	<ul style="list-style-type: none"> Alternative to Conventional Gravel Wearing Course on Low Volume Roads by Phil Paige-Green and Jon Hongve
11:30 – 11:50	Questions and Clarifications
11:50 – 12:00	Introduction of Issues for Group Discussion by the Moderator
12:00 – 13:00	Group Discussions on sub-theme 4 (Them, Twiga, Mbuni Rooms and Mbayuwayu Hall)
13:00 – 14:15	Lunch Break
14:15 – 15:15	Plenary Session 9: Reporting Back from Groups (Mbayuwayu Hall) <i>Chairperson: Martine HMensa, Ghana</i> <ul style="list-style-type: none"> Group 1 Group 2 Group 3 Group 4
14:15 – 14:20	
14:25 – 14:30	
14:35 – 14:40	
14:45 – 14:50	
14:55 – 15:15	Wrap-up of sub-theme 4 by chairperson
15:15 – 15:45	Refreshment Break
15:45 – 17:30	Plenary Session 10: Regional Seminars (Mbayuwayu Hall) <i>Chairperson: Terje Tessem, ILO, Geneva</i> <ul style="list-style-type: none"> Review of activities carried out in line with Maputo statement Discussion on key issues identified in seminar for Arusha Statement
15:45 – 16:45	
16:45 – 17:15	
17:15 – 17:30	Close of Day 4 by the Moderator
19:30 – 22:00	Seminar Cocktail
Day 5	Friday 17 th October 2003
08:00-08:05	Introduction of Day 5 by Moderator
08:00 – 10:00	Final Plenary Session 11: Arusha Statement (Simba Hall) <i>Chairperson: Eng Salewi, Seminar Lead Paper Reviewer, Tanzania</i> <ul style="list-style-type: none"> Discussion on the Role of the seminar and the way forward Agreement on Arusha Statement
10:00 – 10:30	Refreshment Break
10:30 – 11:30	Final Plenary Session (cont) (Mbayuwayu Hall) <ul style="list-style-type: none"> Expression of interest and voting for next seminar host
11:30 – 12:45	Closing Session (Mbayuwayu Hall) <ul style="list-style-type: none"> Word of Thanks from Moderators Word of Thanks from Participants Word of Thanks from the Organizing Team Word of Thanks from MOW, PS-MOW Closing by the Deputy Minister, Ministry of Works
11:30 – 11:40	
11:40 – 11:50	
11:50 – 12:00	
12:00 – 12:15	
12:15 – 12:45	



13:00 – 14:30	Lunch
Saturday 18 th October 2003	
8:00	Optional Trip to Lake Manyara, Ngorongoro, Tarangire and Serengeti National Parks (At additional cost)



13.3 Annex 3: Opening and closing speeches

13.3.1 WELCOME BY ENG. LAURENT M. KYOMBO, TEAM LEADER, SEMINAR ORGANISING COMMITTEE

Honourable Guest of Honour, the Minister of State in the Prime Minister's Office responsible for Policy, Hon. William Lukuvi; Honourable Regional Commissioner for Arusha Region, Hon. Mohamed Babu; Permanent Secretary, Ministry of Works, Eng. John Kijazi; Acting Permanent Secretary, President's Office Regional Administration and Local Government, Mr. Richard Musingi; Director ILO Area Office, Dar es Salaam, Mr. Ali Ibrahim; Representatives from ILO Offices; Representatives from Development Partners; Heads of Government Institutions and Other Government Officials; Representatives from the Private Sector; Seminar Facilitators; Distinguished Invited Guests; Seminar Participants; Ladies and Gentlemen;

On behalf of all members of the Organising Committee of the 10th Regional Seminar for Labour Based Practitioners, I would like to thank our Guest of Honour, for sparing his valuable time to come and be with us this morning to officiate the opening of our seminar.

The 10th Regional Seminar for Labour-based Practitioners is one of the series of gatherings convened every eighteen months whereby practitioners committed to promoting and developing the application of LBT in provision of sustainable infrastructures and services for the poor meet to discuss issues of concern. The first gathering was convened in 1990 to steer a series of knowledge sharing and exchange of experiences. Over the past nine seminars, practitioners were able to meet in nine different African countries and each gathering experienced an expansion. These seminars bring together people involved or interested in labour-based works and apart from exchanging ideas and experiences, they are appraised to new policies and developments in support of application of LBT.

Today we are more than 150 delegates from Africa (Botswana, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe); from Asia (Bangladesh, Indonesia, Nepal, Papua New Guinea, Philippines and Sri Lanka); from Europe (Netherlands, Norway, Switzerland and United Kingdom); and from the United States of America.

Honourable Minister, Ladies and Gentlemen,

The theme for the 10th Regional Seminar is "Labour-based Technology for Poverty Reduction." Labour-based technology has long been promoted as a way of tackling poverty by creating cost-effective and sound infrastructure whilst generating employment opportunities and minimising foreign capital drain. The seminar will embrace a broad range of issues including policy, planning,



procurement and social aspects related to labour-based works in all sectors and aims to:

- Investigate the true impact of labour-based technology on poverty
- Collate an evidence base
- Identify key ways in which the impact of labour-based technology on poverty can be maximised.

At the end of the seminar, we anticipate to have a statement reflecting our deliberations and recommendations for strengthening linkages between application of LBT and related impact on Poverty reduction at different levels.

The success of the seminar apart from relying on the quantitative information from presentations also depends on legibility and clarity of arguments, comments and observations of all participants, as they will be doing the discussion and analysis.

Honourable Ministers, Ladies and Gentlemen,

Thank you for your attention and I wish our seminar valuable and successful deliberations.

13.3.2 WELCOME ADDRESS BY MR. ALI IBRAHIM, DIRECTOR ILO OFFICE FOR KENYA, SOMALIA, TANZANIA AND UGANDA

I am pleased to attend this tenth regional seminar for labour-based practitioners, held in this beautiful city of Arusha and commend the organisers for choosing 'Labour-based Technology for Poverty Reduction' as the theme of the meeting. It is an appropriate theme considering the recorded contribution that labour-based technology made and is still making towards poverty reduction in those countries where it has been prioritised as one of the means of eliminating poverty.

At this dawn of a new millennium, poverty remains deep and widespread across the world. Of the seven billion people living on our planet, two billion, nearly one third, reside on less than USD 2 dollars per day.

Poverty means hunger, sickness and vulnerability. It means long hard days of toil and still not being able to scratch out the bare necessities of life. Poverty means having to send your children to work instead of school. It means child labour. It means not having your voice heard or being able to hold your head up high. On current trends, and despite a growing campaign to achieve the Millennium Development Goals, poverty is still likely to be extensive in 2015 and higher than targeted by the UN led effort. This must be unacceptable to us all.

For most people, decent work is the main and often only way to get



out and stay out of poverty. Empirical evidence shows that those countries that have attained high rates of employment growth alongside with high rates of economic growth have succeeded in significantly reducing poverty. As such, employment considerations need to be integrated into development strategies in general and poverty reduction strategies in particular. However, the need is great - 180 million people are unemployed worldwide and the world's labour force is increasing by about 50 million people each year, 97% of this increase in developing countries. About half of the over one billion people living on a dollar a day or less in developing and transition countries are of working age (15-64). Over 25 million workers worldwide are infected with HIV resulting in weakened economic performance and an escalation of poverty.

In Africa, the youth are most affected by high unemployment with no obvious end to it. This worrying situation requires urgent attention primarily from African governments but also from us all. It is costly to produce school leavers without clear future prospects. In this regard, a serious challenge for African governments to tackle with is the mismatch between the increasing output of our African schools and universities and the job opportunities in the labour market. Training people for jobs that do not exist makes them unemployable. Therefore, the curricula of some of these institutions need to be revisited in order to redirect their training to the changing needs of the labour markets.

Employment intensive investments in infrastructure offer a massive opportunity to address this need. Spending on infrastructure represents about 20 per cent of total investment in developing countries, and from 40 to 60 per cent of public investment, amounting to USD 200 billion per year according to the World Bank. Employment intensive strategies can ensure that this massive investment is used to tackle poverty both through creating productive infrastructure, and by creating employment.

ILO studies on pilot and large-scale labour-based infrastructure programmes carried out in countries as varied as Cambodia, Ghana, Lao People's Democratic Republic, Lesotho, Madagascar, Rwanda, Thailand, Uganda and Zimbabwe show that labour-based approaches:

- are between 10 and 30% less costly in financial terms than more equipment-intensive techniques;
- reduce foreign exchange requirements by between 50 and 60 per cent; and
- create between three and five times as much employment for the same investment.

A similar analysis is currently underway in Tanzania by ILO and the Ministry of Works.

Through employment-intensive investments in infrastructure,



poverty is reduced in the short-term by the increased incomes of workers on the project and in the longer term through the provision of public goods vital to increasing income-earning prospects for the community as a whole. The local economy is stimulated through materials and tools sourced and wages spent locally.

Labour-based construction sites and contracts also provide an opportunity to reach large numbers of vulnerable people with improved labour-standards, including education and awareness raising on HIV/AIDS.

Over the last two decades, the ILO has been supporting partner government to take advantage of these opportunities through a wide range of Labour-based Works. More recently, the ILO has moved from project implementation to supporting governments and their development partners to upscale the use of LBT within an improved institutional set-up. The challenge now is to ensure an up scaled and sustainable impact on poverty.

In Tanzania, we have been involved in the rural roads sector since 1986, and have supported initiatives in urban infrastructure and service delivery and small-scale irrigation. The benefits of the approach have been demonstrated and now key policies such as the Poverty Reduction Strategy Policy emphasize an increased role of rural communities in the rehabilitation and maintenance of the country's roads. We commend the Government of Tanzania's efforts to up-scale Labour-based technology in Tanzania within an improved institutional set-up.

It is worth mentioning that the first of these regional seminars for labour-based practitioners was organised by the ILO in Mbeya, Tanzania in 1990 with 21 participants. It is therefore fitting that we have returned to Tanzania for the 10th seminar, which is being ably hosted by the Ministry of Works of Tanzania, and has over 200 participants.

It is also fitting that we are addressing the most pressing issue of our time: poverty reduction. The challenge is great, but so are the opportunities. I urge you all to remember the plight of the poor during this week of sharing experiences and developing new ideas. The situation where so many of our fellow humans are living in such poor conditions is morally unacceptable. We must act and act collectively.

I wish you every success in your deliberations.

13.3.3 KEYNOTE ADDRESS BY ENG. BARNABAS ARIGA, CHIEF ENGINEER ROADS, MINISTRY OF ROADS, PUBLIC WORKS AND HOUSING, KENYA

The Permanent Secretary, Ministry of Works of the United Republic of Republic of Tanzania Eng. John W. Kijazi, fellow labour based



practitioners from the continent of Africa and beyond, Ladies and Gentlemen.

I feel greatly honoured to be with you here today to delivery the keynote address to this august gathering. As I do so I go down memory lane and recall the first such gathering that was held here in Tanzania in the town of Mbeya in February 1990. It was a very small gathering compared with the participation I see here today.

Since that early inception, these seminars have taken us from the width and breadth of the African continent, - Maseru in Lesotho, Harare in Zimbabwe, Johannesburg in South Africa , Accra in Ghana, Jinja in Uganda, Cairo in Egypt to mention but a few. We have examined many subjects closer to our hearts as practitioners in this field and we have been able to share acquaintances and experiences that have developed us into a large family.

My involvement in this field

I am a product of this fraternity as I have spent many years of my professional career propagating and practising labour based technology in my country Kenya, the Eastern Africa region and Africa generally. I have not only attended almost every one of the above regional seminars but of particular importance in the training of many engineers in this field.

I wish to share my experience with you with regard to this 10th regional seminar for labour based practitioners being held in this beautiful city of Arusha, which is not only the Geneva of Africa but the capital of our East Africa community. Mr Chairman I am proud to be an Eastern African and I am sure there are many in this room who share the same feeling of pride and optimism in our endeavour to unite as a community.

Mr Chairman, Ladies and Gentlement

The theme of our one-week seminar is labour-based technology for poverty reduction. To tackle this theme we have been requested to examine the following broad areas:-

- Policy and up-scaling
- Provision of infrastructure and services through labour-based technology
- Private sector and community involvement
- Contracting and labour standards

Policy and up-scaling

Labour-based technology implies the use of an optimal combination of basic equipment and labour for the purpose of employment creation in the provision and maintenance of physical infrastructure. The Egyptian pyramids and the Great Wall of China are living



testimonies of the skill and organisational capacities of humankind.

One may be tempted to ask why labour-based technology is gaining more and more credence while everybody is geared towards industrialisation within a decade or two. The reason is that unemployment continues to present real challenges to economic growth. Most Sub-Saharan countries have unemployment in the order of 25-30% that exhibits a growth rate close to the population growth rates, typically 2-3%. This unemployment comes with many social evils besides poverty. It portrays itself in form of crime, rural - urban migration, civil strife, political instability, prostitution, drug abuse and diseases. Furthermore, unemployed people lack self-pride and confidence.

There are therefore very many advantages in the use of labour-based technology some of which are:

- Local resources are used;
- Labour is relatively cheap;
- Less skills are required;
- People identify themselves directly with Government projects and programmes;
- There is reduction of capital flight;
- Rural - urban migration is reduced;
- Local economies are boosted;
- Local entrepreneurship is encouraged;
- Economic and political sense is made good through redistribution of wealth;
- Encourages transfer of skills; and
- Technical results can be as good as for machine based.

The broad objectives for a policy on labour-based technology should therefore geared towards improving the living standards of the poor and marginalised in a sustainable way, through increased income generation and employment opportunities, by way of:

- Encouraging the substitution of labour for capital labour;
- Ensuring that government procurement procedures favour the use of local resources and employment creation;
- Stimulating and supporting small scale enterprises to implement labour based technology; and
- Maintaining the labour absorption characteristics of the various sectors of the economy that already utilise large amounts of labour.

However, before a labour-based programme can be implemented, whether using force account or with private sector involvement, there are several basic policy and administrative issues that must be addressed. In the case of force account implementation, the issues are:



- Making the policy decision to include labour based technology in road construction and maintenance;
- Developing internal capacity through training and acquisition of resources;
- Carrying out pilot projects; and
- Evaluating the pilot projects before finally implementing the programme if you are happy with outcome so far.

Once the programme is implemented, there is need to follow it up with further training and more project evaluation. Where the private sector is involved, the need to develop internal contractor capacity through training of small-scale contractors is of utmost importance.

At the implementation level, the work methods, standards and project selection criteria should be developed and the activities to be carried out clearly defined. For any programme to be successful, the seven cardinal rules must be followed to the letter. The rules are as follows:

1. Recruit from the project area;
2. Recruitment must be fair;
3. Recruitment should target the needy;
4. Involve local leadership and administration;
5. Pay for work actually done;
6. Payments must be timely; and
7. The programme must be supervision intensive.

We in Kenya are now developing and applying tools that will lead to the improved implementation of the Roads 2000 programme. The recommended support areas are: -

- Capacity building and widening the knowledge base;
- Promotion of the private sector

It is estimated that the initiative will record a productivity of 11,095,000 workdays for 43,820 labourers.

A training curriculum targeted at the middle and lower level staff has already been developed, and we are in the process of developing one targeting the senior managers. This will cover planning, designing and implementation of works suitable for labour intensive approaches with the aim of incorporating national development goals and poverty reduction strategies. It will further focus on mainstreaming and institutionalising the approach within the implementing agencies and most importantly, will enable the provision of a sustainable and efficient service primarily relying on local resources.

In promoting the private sector, the following components are being put in place: -

- Training curricula and material for various levels of contractors;



- Development of an appropriate procurement tool and procedure;
- Contract management and monitoring procedures; and
- Guidelines on possible support to the contractors.

Provision of infrastructure and services through labour-based technology

In the last few years we have developed labour based technologies in the provision of infrastructure across the continent of Africa and made these alternative systems become acceptable. We have thus been able to proof that these systems do work .The fundamental understanding has been that the use of the labour based methods is an alternative way of providing rural roads that act as a catalyst to development. The creation of abundance employment opportunities has been a good bye-product but not the main aim of these programmes. Where programmes have been created purely to create employment they have generally failed down the line.

Large labour-based road programme such as the Lesotho Labour-based Programme, the Ghana Feeder Roads Programme and the Kenya Rural/Minor Roads Programmes have had the following ingredients in place.

1. A high level of supervisory capacity.
2. A long term and sustainable capacity building effort.
3. Involvement of the local and national leaders in the formulation and execution process. A sustainable top government commitment for these programmes.
4. A local participation effort through government and none government agencies.
5. Flexibility in the procurement, reporting, recruitment and funding arranges in government to accommodate the unique features of the labour based programme.
6. An initial long term donor commitment has been essential to initiate the changes in both the long and short term basis.
7. The involvement of the International Labour Organisation through its affiliates such as ILO/ASIST Africa initiative.
8. A cross fertilisation of ideas from one programme to another has facilitated a shorter learning curve.

Labour-based technology has come to be accepted as a professional and cost effective method of providing infrastructure and Services to communities.

Private sector and community involvement

A study commissioned by the International Labour Organisation to carry out a comprehensive analysis of two of the largest labour-based programmes in Africa namely the Ghana Feeder Roads Programme and the Kenya Rural /Minor Roads Programmes came up with very interesting results..



The programmes, although of a similar nature in terms of number of people employed, level of services of the roads constructed and maintained, differed fundamentally in the method of execution. The Ghana Programme utilised the private sector trained contractors while the Kenyan one was predominately a force account operation where government was involved in the entire process of identification, planning, execution and maintenance of the roads built.

There is no doubt that these two programmes have stood out over time as some of the most successful programmes in the continent. The end-product of the two programmes was strikingly the same despite the different approaches.

Having said this I have the following observation to make and it's my hope that over the period of this seminar you will look at it.

In many of our early programmes, the private sector and the communities were not involved at various stages of the execution of these programmes such as the inception and planning stages but as participants in the actual execution of the programmes. Their fundamental role was as recipients of the product which was a road, a water project, etc. In the last few years though, a lot of effort has been put in place to involve the private sector and the communities in their own development as the saying goes it is they that know what they need.

You may wish to examine the following scenario. Communities normally tend to appreciate the need for certain basic necessities in life such as provision of shelter provision of clean water, provision of health facilities, etc. In analysing their priorities, we do not believe that the provision of infrastructure, in particular the provision of roads, will take a high priority where the basic needs of life are lacking. May be our endeavour to involve the private sector and in particular the communities may be ill advised.

Experience shows that it is rich and well-off rural communities involved in other economic activities that appreciate the need for infrastructure provision, not because it is essential but because it assists them to meet their other economic activities. For example, a tea farmer in the rural area may see the need for a road to facilitate him or her take tea to the factory and avoiding the same rotting in the farm. The same will hold true for fish, wheat or sugar cane farmers. The poor in our society will not necessarily give a high priority rating for infrastructure. In fact, the provision of infrastructure may completely dislocate their lives as the law enforcement agents may now access them easily and assist in disrupting their peace as they perceive it.

Labour-based and community managed upgrading of urban low income settlements - Capacity development issues



Statistics available indicate that nearly a third of the world's population is living in a state of poverty. In Nairobi, Kenya 55% of the urban population live in unplanned settlements. The unplanned settlements are expanding rapidly - at a growth rate of between 13% and 24% a year. The growing settlements are characterised by poor or non-existent public infrastructure and unplanned development. In addition, the community is faced with rampant under employment and a resultant rise in insecurity. Local authorities lack adequate capacity to provide the much-needed resources within these settlements.

Studies have shown that labour-based and community managed approaches can offer solutions for upgrading unplanned and low-income settlements considering the poor state of infrastructure and unemployment. Herein lies the potential for training in quality control and assurance.

City and municipal councils are facing enormous challenges as they seek partnership with local communities to upgrade, repair and maintain the physical infrastructure with the rapidly growing low settlements. While well-trained personnel using labour-based methods can do much of this work, there is lack of practical experience and supervisory skills to achieve standards in a cost effective and timely manner.

Contracting and labour standards: Private sector participation - Capacity building

The Government of Kenya (GoK) in the early 1970s embarked on a policy whose objective was to assist up and coming African contractors join the contracting industry. This was in the building and civil works sectors. The main executing agency was the National Construction Company of Kenya (NCCCK), which sub-contracted all their works to the small-scale contractors. This arrangement had limited success in the building sector while having a very insignificant effect on the bigger infrastructure sector.

It has been realised that the continual non-participation of the local Kenyan in the key sector of infrastructure development is not healthy economically and in the long run it is going to be injurious to the overall economic empowerment of the Kenyan people. No nation can expect to be continually developed by foreigners no matter how noble their intentions.

Because of the nature, complexity and restricted entry requirements in this sector, it would be unrealistic to expect that one major policy will automatically bring local Kenyan participation in the sector. It has to be a series of simultaneously applied policies whose net effect could slowly but surely bring the Kenyan entrepreneur into this sector. A lot has to be borrowed from several African countries that have gone through this process successfully. It is proposed to



formulate policy changes whose net effect is to facilitate the participation of the local Kenyan in this restrictive and difficult market. The major policy changes are:

- Setting aside a substantial amount of money from the fuel levy budget and other GOK routine maintenance budgets specifically for small-scale contractors to undertake contracting works.
- All contractors and consultants undertaking work in Kenya must be registered by the Engineers' Registration Board (ERB). The ERB must take a leading role in regulating the construction industry.
- To encourage the participation of professionals in this field, engineers and other professionals in this field who wish to try their hand in contracting should be given unconditional sabbatical leave (unpaid leave) for up to three years with an option of rejoining the service if this excursion proves unsuccessful.
- The GoK should transform the mechanical department into an equipment leasing/lending agency where up and coming contractors could borrow equipment for the jobs they are given while avoiding the costly exercise of buying new equipment
- In order to simplify the cumbersome requirements of open bidding the GoK will revert back during this capacity building stage to the fixed rate contracts.
- In order to enable emerging local small-scale contractors to enter this restrictive market maximum utilisation of labour-based work methods will be incorporated on all relevant terms and conditions of contracts involving infrastructure projects.
- A basic training programme for small-scale contractors will be put in place. It will form the entry point for all those who wish to enter the industry. Funding for this should be available from GoK sources and from external donor agencies.
- Mentorship will be encouraged in the industry by issuing guidelines for terms and conditions of contracts to be modified as to make it compulsory for 25 percent of the total volume of work in terms of finance and workload to be sub-let to small scale contractors.

Donor coordination and project sustainability

You will have noticed that many of our donor partners whether at bi-lateral or multilateral levels have a set of objectives that they wish to propagate through programme support. Some of these objectives may be known internally as accepted basic standards such as human rights, gender equality, environmental concerns, institutional support etc. these objectives though may be at variance with the recipient's concerns such as creation of employment, poverty reduction strategies.



Over these years I have been involved in project implementation we have found it prudent wherever we have more than one donor participating in funding of the projects to encourage donor coordination through a third neutral party. In the past, this role used to be played by the International Labour Organization and it used to be very useful in facilitating exchange of ideas and cross fertilisation of systems and methods.

However, its affiliates such as ILO/ASIST have been reluctant to play this role preferring that individual recipient countries carry this out on their own. As a result, multi-donors such as the World Bank and European Union are now more often than not carrying out donor coordination.

It would be wise if the International Labour Organisation could be encouraged to play this role of donor coordination even if this was on a small scale.

Donor conditionality and project implementation

There is no doubt that funding agencies expect certain basic conditionality meet by the recipient, such as respect for human rights, freedom of the press, etc.

What is however saddening is that some of our development partners are forever creating and reinventing aid conditionalities, in respect of our African countries. There is no doubt that countries in the Far East although still developing have been given little or no conditionality for aid programmes and as a result developed their economies very quickly. This has been done even under very dictatorial regimes. While democracy is a very good thing, every body will tell you that it is almost impossible to sustain democracy in Africa without development. Perhaps, in the years to come we need to develop one or two universally acceptable donor conditionality and divert from this notion that African governments need to be tied to a rope and the bigger the rope the better. In the end, it is not the governments that suffer but the people of the regimes. So long as we have poverty in the continent we should continue have in insecurity and instability in our midst.

Institutional capacity building

Institutional capacity building is an excellent idea and should be encouraged in all of our projects/programmes. What I find odd is the consistent belief by many of our development partners that institutions must be restructured in a particular way for them to function. In pursuance of this we now have standard structures for road boards or independent/semi-autonomous road agencies, etc.

It is important for us to note that institutions are borne out of historical norms and practices. They have been involved over time and many were a product of our colonial past inheritance. Reforms



are necessary but let us not copy institutions from Europe and just spread them like wild fire across Africa without any regard to the existing intuitional memory of the same.

Food for work programmes

In the last few years, we have seen the development of food for work programmes in such countries like Ethiopia and more recently in Zambia. The principles behind this is that a community requires food aid and rather than give it free of charge we have opted for these communities to do some work on our roads in exchange for food.

These programmes encourage food dependence and are from purely humanitarian viewpoint downright exploitation. If any human being requires food aid to survive to live another day, it is rather sad that that deprived human being should be made to squatter in the hot sun in order to earn a meal for the day.

I wouldn't encourage anybody to contemplate running programmes such as this in the infrastructure sector for it negates the very principle for which these programmes stand for, namely the provision of infrastructure to facilitate development.

Other factors to consider

Why are the labour-based programmes in Africa diminishing with the introduction of the private sector involvement in their execution?

The public sector in Africa is the predominate employer; hence for employment intensive projects to succeed this sector must be encouraged to participate in it. This is counter to the belief that the labour-based systems must be accepted by the private sector for them to be sustained. Technological transfer to the local communities does not take place with the use of the private sector. The worker is simply a worker to be used.

I wish to also share with you my experiences in the following areas:-

Communities - parameters of change:

- Provision of right of way without compensation
- Appreciation of the social economic benefits of the built structure
- Meru Water Project
- South Nyanza Culvert Manufacturing Project
- Meru, Muranga, Kakusi, Embu Environments
- Naivasha Tree Planting Programme by the Late Chotara
- Mali- Bokina Faso Desert Rehabilitation Tree Planting Programme.- The crocodile farms and the philosophy behind the programme
- World Food Programmes - Ethiopia And Malawi Examples



- The Soweto Township Programmes and the Mathare 4A Projects lessons learnt
- Environmental Programmes - Nyeri
- Gender and Environment
- The Yatta Water Programmes - Lessons learnt

Politics and development

I am privileged to come from a country that has recently held one of the most spectacular elections that has led to a new political dispensation. The degree of freedom and democratic space in our country would have been unthinkable a few months ago. It goes to show that this beautiful continent of ours is not doomed as many people will like to believe. But we need to work at it and more importantly we need to believe in ourselves and in our destiny. It is in the short and long run that we are going to develop our part of the human race.

As the late founding father of this nation Mwalimu Julius Nyerere once said “as the rest of the world is going to the moon, we in Africa are trying to reach the village.”

Ladies and Gentlemen, the village in Africa is still unreachable. We have a job to do.

Thank you and may we have a fruitful seminar 13.3.4 .

13.3.5 WELCOME ADDRESS BY ENG. JOHN W. H. KIJAZI, PERMANENT SECRETARY, MINISTRY OF WORKS, TANZANIA

Honourable Guest of Honour, the Minister of State in the President's Office responsible for Regional Administration and Local Government, Honourable Regional Commissioner for Arusha Region, Lord Mayor for Arusha Municipal Council, The Regional Administrative Secretary for Arusha Region, Director ILO Area Office, Dar es Salaam, Representatives from ILO Offices, Representatives from Development Partners, Heads of Government Institutions and Other Government Officials; Representatives from the Private Sector, Seminar Facilitators, Distinguished Invited Guests, Seminar Participants, Ladies and Gentlemen.

Allow me, on behalf of the Ministry of Works, to express our profound gratitude to you, our Guest of Honour, for accepting our invitation and sparing your valuable time to come and officiate the opening of this seminar. Your presence here with us today is a clear testimony of how much you and the Government of the United Republic of Tanzania value the use of LBT as one of the appropriate interventions for addressing the issue of Poverty. The theme of this seminar, which is “Labour-based Technology for Poverty Reduction” speaks for itself and needs no further justification as to how



important and relevant this seminar is to Tanzania and to other poor developing countries. Thank you Honourable Minister for being with us today and kindly accept our most sincere appreciation.

Honourable Guest of Honour and Seminar Participants,

On behalf of the Ministry of Works Tanzania, which is hosting this seminar, I would also like to welcome you all, the participants to this seminar, particularly all those guests who have decided to travel all the way from their distant countries to Tanzania. We hope you will all enjoy both the seminar and your stay in Arusha. As you may note, the seminar program provides options for visiting some of our tourist attractions. Please welcome and feel at home.

Honourable Guest of Honour and Seminar Participants,

I will be doing great injustice if, on behalf of the Ministry of Works of the United Republic of Tanzania, I won't thank all those who convened in the 9th Regional Seminar held in Maputo, Mozambique in May 2002 and voted for Tanzania to host this 10th Regional Seminar. Thank you for choosing Tanzania to be the venue of this noble gathering and we promise to make sure that the event becomes a great success.

I wish also to register the fact that in hosting this event, the Ministry of Works has collaborated very closely with the International Labour Organisation (ILO) and received support from various development partners and stakeholders including the private sector. The Ministry extends its sincere thanks to ILO and to all those who have supported us through material or kind contributions. To mention some of them, we received contributions from the Norwegian Agency for Development Cooperation (NORAD); Swiss Agency for Development and Cooperation (SDC); United Nations Development Programme (UNDP), United Nations Capital Development Fund (UNCDF); The Tanzania National Roads Agency (TANROADS); Tanzania Social Action Fund (TASAF); Tanzania Contractors Registration Board (CRB); and a private consultant Crown Tech Consult Limited.

We also thank all the papers presenters whose papers they are going to present in this seminar have made this event possible and worthwhile. I particularly commend Engineer B. Ariga, a very experienced LBT Practitioner, for his very eloquent and elaborate keynote address.

Thank you all and we recognise your valuable contributions. The Ministry of Works also commends the organizing team for their tireless efforts to make this seminar a success.

Honourable Guest of Honour,

I wish to recognise with appreciation the fact that labour-based practitioners have a very good trend of convening these seminars in



different African countries at an interval of every eighteen (18) months. When the first seminar was held here in Tanzania in 1990, only 21 practitioners met in Mbeya and became founders of these seminars. Ever since, the appreciation and need for these seminars has increased as evidenced here today by the good participation to this seminar, where more than one hundred and fifty (150) delegates from Africa, Asia, Europe and America are in attendance. This consistency and expansion of the seminars is a clear testimony of the commitment by the labour-based technology practitioners to enhance the use of this approach for the socio-economic development of our countries. It is therefore imperative that governments, donor agencies NGOs and indeed all other stakeholders in the construction industry join and support these efforts by adopting and applying LBT wherever feasible.

Honourable Guest of Honour, Distinguished Participants, Ladies and Gentlemen,

Although my duty is to give a welcome note before welcoming the Guest of Honour to open our seminar, I feel duty bound to outline even though very briefly our position in Tanzania on the use of labour-based technology in the construction industry. Focusing on road works, the technology has been practised here in Tanzania at project level all around the country with recognisable performance and achievement. The quality of the roads has proved the technology technically viable. Benefits realised by the communities involved in undertaking the works include among others their income growth as well as improving their social living standards. Projects executed in different parts of our vast country have made our communities develop a sense of ownership for the road sections in their areas and consequently they have realised the importance of participating in maintaining them. In short, the LBT is increasingly gaining much wider acceptance and popularity by the financing and implementing agencies and the civil society in general.

Honourable Guest of Honour and Seminar Participants,

We in Tanzania now have a mission to promote the use of LBT beyond project level. We have decided that LBT has to be mainstreamed and institutionalised in our day-to-day construction industry operations.

Currently our Ministry, using a consultant, is undertaking a study to establish the macro economic impacts of the use of this technology in road works qualitatively and quantitatively. We believe such analysis will support our efforts of promoting the use of this technology at all levels apart from convincing those speculating against this approach.

In addition, basing on experiences already gained, we have prepared a National Framework Programme Document for the promotion and up scaling the application of LBT in the country. The four-year programme is due for launch soon. I am aware that some highlights



of the programme will be made known to you during this seminar.

Honourable Guest of Honour and Distinguished Seminar Participants,

In conclusion, I once again welcome you all to this seminar and receive our best wishes from the Ministry of Works on this important event. I wish you all very successful seminar deliberations and finally, it is now my pleasure and great honour to humbly welcome the Honourable Guest of Honour to address us before eventually officially opening our 10th Regional Seminar for Labour Based Practitioners.

Thank you very much for your kind attention.

13.3.6 OPENING ADDRESS BY HON. WILLIAM LUKUVI, MINISTER OF STATE PRIME MINISTER'S OFFICE (POLICY), TANZANIA

Officials from the Government of Tanzania, Kenya, Uganda and other countries, ILO Officials, Development Partners' representative, Labour-based Practitioners, Workshop Facilitators, Distinguished Seminar participants, Ladies and Gentlemen.

I would like to take this opportunity to thank you all for accepting our invitation and sparing your valuable time to come to this seminar. I would like to welcome all participants to this seminar and a special offer is given to our guests who have decided to travel to our country and discuss with us here a theme that is a strategy for economic development - "Labour-based Technology for Poverty Reduction." Your presence shows how much you are committed to support the efforts in addressing poverty.

I understand that this is the tenth seminar conducted within the region to allow participants from different countries to exchange ideas and experience and be appraised of new policies and developments and identify and address key issues of concern regarding the use of Labour based technology for development. I am also told that the first regional seminar of this kind was conducted here in Tanzania. I thank again, those who in one way or another participated in making a decision of choosing Tanzania to be the host of this seminar. I believe you will enjoy being in Tanzania particularly to Arusha for these five days especially for those who will have the opportunity of visiting the Ngorongoro Crater and Manyara/Serengeti National Parks. My task today is to officially open the seminar.

Distinguished Participants, Ladies and Gentlemen,

Poverty reduction is a challenge facing every one. In Tanzania, studies show that about 36% of the population lives below the poverty line, 87% of them in rural areas. Poverty is also rising in



urban areas. The gap between the better off and the poor threatens the peace and unity of Tanzania. In response, the Government of Tanzania has put in place a poverty eradication framework, which includes the Poverty Reduction Strategy Paper (PRSP), where use of labour-based technology in infrastructure development is emphasized.

Economic reforms since the mid 1980s in Tanzania have registered positive results but have not changed the situation at grassroots level, and steps are being taken to focus pro-poor growth through investment in agricultures, rural infrastructure, social services delivery and provision of social safety nets.

Many partners, including civil society, the private sector and the development partners have joined the Government in these efforts and the Government will continue to strengthen such partnerships.

Labour-based technology has been practiced in Tanzania in different sectors in infrastructure developments. It has been proved beyond doubt that it is for poverty alleviation strategy through participation and empowerment of local people (e.g. cash income as wages through employment created); use of local resources in infrastructures development (which is cost effective); and strengths decentralization (local authorities develop their own capacity). Economically the use of labour-based technology substitutes the use of heavy equipment that implies a great deal of the expenditure and dependence on the over-scars foreign exchange. The list of benefits related to social aspects is endless and Tanzania has the population distributed in such a way that labour availability to support the approach cannot be a hindrance.

Currently, poverty alleviation is the issue the government has pioneered to tackle and it has started the implementation of the strategies as set in the PRSP. All sectors are geared to implement that policy. The implementation framework of the PRSP for road sector component has six actions be taken and three of them refer to strengthening, developing and intensifying the use of labour based technology.

It is from this reasons the Government of Tanzania has decided to up-scale the use of labour-based technology in its all infrastructure development projects and it has prepared a programme which will be implemented in four years to pave a way towards fully streamlined use of labour based technology in all sectors.

Ladies and gentlemen, during the next five days, I understand issues on labour-based technology for poverty reduction will be presented. Participants will have the opportunity of understanding, share experience and identify key ways in which the impact of labour-based technology on poverty reduction can be maximized.

The issue of HIV/AIDS is affecting all of us, everyone knows the



history of it, I therefore urge you all to make personal contribution to tackle the problem.

Ladies and Gentlemen, involving women in development activities has proved to be a catalyst for the development of the entire nation. These seminars can influence in having equal opportunities in sharing responsibilities.

Ladies and Gentlemen, the overall purpose of looking at these issues, I believe, is to enhance the overall economy of our countries. I do expect the quality of your deliberations and recommendations will be to the expectations of our nations. I therefore urge you to attend all sessions, participate effectively as much as possible as from the plenary sessions, discussions, site visits, etc.

I wish to thank the Ministry of Works, the ILO/ASIST and all those who in one way or another participated to make this seminar a reality. I also wish to thank development partners, particularly the NORAD, UNDP, SDC, DANIDA, FINIDA, the private sector, TASAF and all others who have contributed in spearheading labour-based technology projects in different areas in Tanzania.

Distinguished Ladies and Gentleman, Tanzania is a very beautiful country. Currently you are at the foot of Mount Kilimanjaro and most of the tourist areas are in the Arusha region. Tanzanians are very kind and polite so during the free time do not hesitate to get to know us better.

I wish you a good stay in Arusha and I now have the honour to declare this seminar open.

13.3.7 CLOSING BRIEF BY LAURENT M. KYOMBO, TEAM LEADER, SEMINAR ORGANISING COMMITTEE

Honourable Guest of Honour, the Deputy Minister for Works, Hon. Hanza Mwenegoha (MP), Permanent Secretary, Ministry of Works, Eng. John Kijazi, Acting Permanent Secretary, President's Office Regional Administration and Local Government, Mr. Richard Musingi, Representatives from ILO Offices, Representatives from Development Partners, Heads of Government Institutions and Other Government Officials, Representatives from the Private Sector and Communities, Seminar Facilitators, Seminar Participants, Ladies and Gentlemen.

On behalf of all members of the Organising Committee and all of those who have been involved in one way or other in the successful conduct of the 10th Regional Seminar for Labour-based Practitioners, I would like to thank our Guest of Honour, for accepting our invitation and sparing his valuable time to come and be with us and officiate the closing of our seminar.

The 10th Regional Seminar for Labour-based Practitioners held in Arusha Tanzania was attended by 210 delegates from 24 countries



namely Bangladesh, Botswana, Ethiopia, Ghana, Indonesia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nepal, Netherlands, Norway, Philippines, Rwanda, South Africa, Sudan, Switzerland, Tanzania, Uganda, UK, USA, Zambia and Zimbabwe. We have all drawn and agreed on the Arusha statement capturing our deliberations and recommendations.

Honourable Minister, Ladies and Gentlemen

The success of the seminar is an outcome of information provided through presentations as well as legibility and clarity of arguments, comments and observations from all participants as they were engaged in group and plenary discussions, and analysis as presented to us by the moderator. I would like to take this opportunity to congratulate all participants and thank them for their commitment on the seminar proceedings and the commitment towards poverty reduction that they have shown by reaching into their own pockets to help the poor people at the Sombetini quarry. The contribution is Tshs. 678,500 and USD 261 and this will be handed over to the Coordinator of Sustainable Arusha Programme (Mr. Benne) who will develop the plan of action with the stone crushers association to invest the money into improving the lives of the people working in the quarry. This is a small contribution from the seminar participants as related to the seminar theme.

I hereby pose a challenge to us all and others to make a much greater contribution by taking forward the strategies as presented in our Arusha Statement.

Before concluding, I would like to thank all those who have travelled to our country from afar, I hope you have enjoyed your stay in Arusha and I wish you a safe journey back home. Send our sincere and warm greetings to your families and friends.

Honourable Minister, Ladies and Gentlemen,

Thank your attention and God Bless You All

13.3.8 CLOSING SPEECH BY HON. HAMZA MWENEGOHA (MP), DEPUTY MINISTER, MINISTRY OF WORKS, TANZANIA

Honourable Chairperson, Permanent Secretaries, Representatives from Development Partners, Heads of Government Institutions and Other Government Officials, Representatives from the Private Sector, Seminar Facilitators, Distinguished Invited Guests, Seminar Participants, Ladies and Gentlemen.

It is my pleasure to be given this valuable opportunity of officiating the closing session of the 10th Regional Seminar for Labour-based Practitioners. Thank you very much.



Honourable Chairperson and seminar participants,

I am aware that, thirteen years ago, a first seminar of this kind was held in Tanzania. The 10th of such seminars, with a pertinent and relevant theme, “Labour-based Technology for Poverty Reduction,” has again been held in Tanzania. Therefore, let me join hands with my colleagues on behalf of the Ministry of Works and the Government of Tanzania to thank all of you for having voted Tanzania to host this seminar.

Distinguished Participants, Ladies and Gentlemen,

This seminar with this theme could not have come at a better and opportune time than now. This seminar has been conducted at a moment when the policy making process requires inputs to support development of effective policies for poverty reduction.

As you might be aware, Tanzania has started the Poverty Policy Week this week and that forum entails highlighting the significance and magnitude of the national initiatives towards achieving development targets as spelt out in the country’s Development Vision 2025, the National Poverty Eradication Strategy, the Tanzania Assistance Strategy and Poverty Reduction Strategy Paper. The aim is to bring together the various actors within the Poverty Monitoring System and create a momentum in poverty reduction efforts that can be built upon on an annual basis. The use of labour-based technology is one of the recognised approaches in all the country’s strategies set towards achieving the national goals. In this Poverty Policy Week, different stakeholders including the government, development partners, the private sector and civil society are having a chance to discuss key poverty reduction initiatives.

As we all know poverty has many dimensions and a range of survey methods are required to capture them. However, for whatever method that can be used, the focus should be on pro-poor growth. The theme for this seminar being “Labour-based Technology for Poverty Reduction” is rightly addressing our poverty reduction agenda.

Distinguished Participants, Ladies and Gentlemen,

Your seminar has focused on the application of labour-based technology in the provision of infrastructure and services. You have shared experience on how labour-based technology impacts poverty.

More important you have tried to benchmark labour-based technology application by identification of existing challenges and opportunities and suggested areas of improvement including policy framework. This is a manifestation of how keen you have been in ensuring an appropriate way forward.

Honourable Chairperson,

I am aware that cross cutting issues of HIV/AIDS, gender and



environment, etc. were included in your discussions. This is commendable. We all have to join efforts in fighting the HIV/AIDS pandemic. Otherwise, the success of labour-based technology approach will be in jeopardy as the major input, which is labour will not be available as and when required.

We also all know that women constitute a large portion of population in the world, and if we discriminate them from development programs, it means leaving the large portion of the population behind. Gender balance in the application of labour-based technology is therefore a prerequisite to its success in reducing poverty in our communities.

I am quite sure some of you might have been concerned by the state of the environmental degradation in some of the sites you have visited. I want to assure you that our Government is taking the necessary mitigating measures to address such environmental degradation problems.

Distinguished Participants,

I hope that the partnership we have been able to develop for the success of this seminar will be maintained and nurtured. The importance of strengthening partnerships in exchange and sharing of information and best practices has a significant contribution in the process of tackling the problem of poverty. The strength of the poor depends on their unity, determination, commitment and ability to share their locally available knowledge, skills and capability that allow them to integrate external contribution for maximum benefit. In principal what is needed is effective action and commitment at all levels.

Distinguished Participants, Ladies and Gentlemen,

Finally but not least, it will be unfair if I don't recognize the efforts and efficiency embedded and shown by those involved in one way or another to support, organise and participate in the seminar. Without their dedication and commitment, the outcome of the seminar would not have been as fruitful as it has been. It is also my sincere hope that you have enjoyed your stay in Arusha and especially to those of you who had a chance of seeing the surrounding beauty of nature, animals and Mount Kilimanjaro.

I also applaud all those seminar participants who have come from far outside Tanzania. Rest assured that we were very happy to be with you in our country.

Honourable Chairperson, Distinguished Participants Ladies and Gentlemen,

After these few remarks, I now take the pleasure to announce that the 10th Regional Seminar for Labour-based Practitioners for Poverty Reduction is officially closed and I wish you all the best in your endeavours and safe journey back home.

Thank you for your attention and God Bless You.



13.4 Annex 4: Seminar evaluation

At the end of day, four participants were requested to make an overall evaluation of the seminar. The following is a summary of the evaluation.

13.4.1 QUESTIONNAIRE

Which county are you from? _____

1. What type of institution do you work for?

- Central Government
- Local Government
- Donor funding agency
- Academic/training Institution
- Consultancy engineering firm
- Contracting engineering firm
- NGO/Development agency
- Other (Specify)

2. How did you learn about the seminar?

- By invitation
- Personal contacts
- ASIST Bulletin
- Other (Specify)

3. How did you rate the seminar organisation?

	Excellent	Good	Fair	Poor	Comments/Suggestion
Paper presented					
Plenary sessions & discussions					
Facilitated group discussion					
Field trips					
Opportunities to network					
Technical content					
Overall					

4. What issue/topic did you find useful/interesting and why?

5. What issues/topic did you find least useful/interesting and why?



6. What issue/topic did you think was not covered properly? _____

7. How will you apply what you learnt in your work/life?

8. How did you rate the seminar facilities?

Excellent	Good	Fair	Poor	Comments/Suggestion
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Accommodation

Conference rooms

Catering

Equipment

Transportation

9. What theme would you like to focus on for the next seminar?

10. Would you like to present a paper? Yes/No

Topic: _____

Contact Details: _____

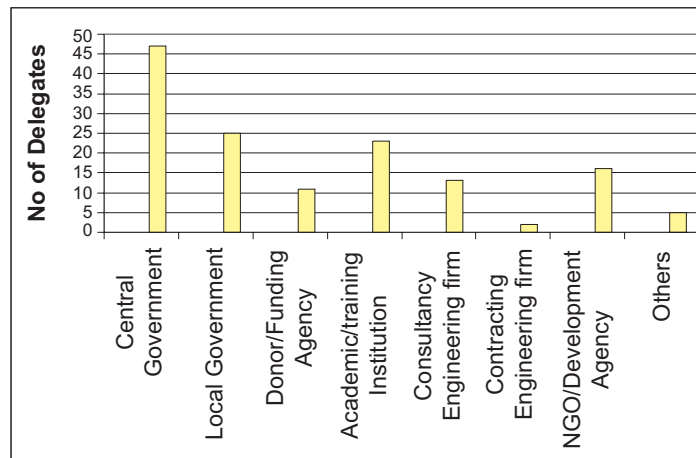
11. Any other suggestions/comments to improve the seminar:



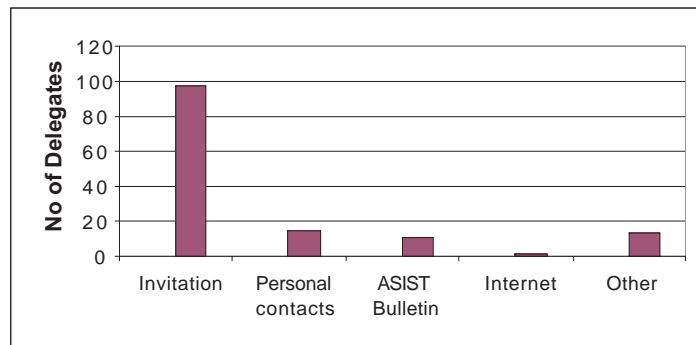
13.4.2 RESULTS

Which country are you from?

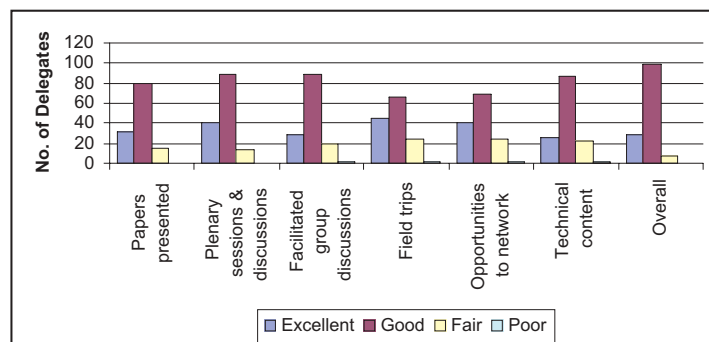
1. What type of institution do you work for?



2. How did you learn about the seminar?



3. How did you rate the seminar organisation?



Comments

Paper Presentations

- Participants were satisfied with the quality of paper presented, however, they were of the opinion that papers on the diversified use of LBT outside road construction would have been beneficial.



Plenary sessions & discussions

- Plenary discussions were considered to be important and well received. However, time allocation for plenary sessions and discussion was considered inadequate.

Facilitated group discussions

- Facilitation was considered essential but some of the facilitators were found not to be well prepared.
- The time allocation for group discussion was considered inadequate.
- There is need to have properly focussed discussion topics and expected outputs.

Field trips

- Field trips were received positively except that they were too far apart.
- The choice of the sites to be visited was considered to be excellent.
- Facilitation during field trips was considered to be very adequate.

Opportunities to network

- Although networking was not apparent during the workshop, participants believe their attendance and the availability of e-mail addresses will facilitate communication with fellow participants in future.

Technical content

- Majority participants were satisfied with the technical content of the seminar.

Overall assessment

- Overall assessment on organisation and conduct of the seminar was generally considered to be excellent.

4. What issue/topic did you find useful/interesting and why?

- Case studies and experiences: Most participants indicated that they were interested in papers based on case studies. These papers presented successes, failure and reasons for failure, which the participants considered as vital for the replication and sustainability of LBT projects. The majority of these papers were covered in theme 1: Provision of infrastructure and services through LBT; and theme 2: Private and community based involvement.
- Sustainability issues: A multi-tier approach and involvement of communities were seen as important ingredients of sustainability. The paper by Lwanda et al. was thought very relevant in this regard.
- Policy issues and up-scaling: This topic was of interest because policy and political will in particular were considered to be



essential for up-scaling of LBT.

- Cross cutting issues: This was considered important because other social economic issues play a vital role in the success, failure and sustainability of LBT. Issues like gender, HIV/AIDS, environment were considered very important. However, the coverage of cross-cutting issues was considered inadequate.
- Private contractors and community involvement: Involvement of private contractors was considered important because most of the government are pulling away from being executing agencies. Community involvement was considered to be important because it is the communities that are faced with poverty and therefore their involvement not only assists them in fighting poverty but also enhances ownership of the project and hence sustainability.
- Contracting and labour standards: This was considered important since the current procurement procedures and labour standards do not directly recognise community involvement, hence the need to adapt the current labour standards to suit LBT.
- Field visits: Field visits were seen as complimentary to paper presentation.

As can be seen from the above analysis all topics discussed were of interest.

5. What issues/topic did you find least useful/interesting and why?

- Impact analysis and gaps: Impact analysis was considered inadequate as it narrowly focussed on employment creation (though temporary) and income gains in form of wages, instead of looking at a broad range of impacts as a result of LBT.
- Up-scaling LB: No paper under the theme “Policy and u-p-scaling” actually discussed upscaling. Besides the definition and actual meaning of the term was thought to be unclear.
- Private sector and community involvement in LBT: Some of the seminar participants think that the advantages of private and community involvement in LBT were not well argued.
- Group discussion: Some participants were not happy with pre-set questions for group discussions as they prompted the outcomes.

6. What issue/topic did you think was not covered properly?

- Policy, legal, contracting and labour standards issues: Some participants expected that issues of transparency of resources use, legal bottlenecks and socio-economic barriers, financing of programmes were not covered properly.
- Impact analysis: As mentioned already impact analysis was not addressed properly. It lacked evidence of LBT intervention on poverty, data on actual poverty reduction, analysis of economic spin-offs, etc.
- Sustainability of LBT: Sustainability issues were not properly



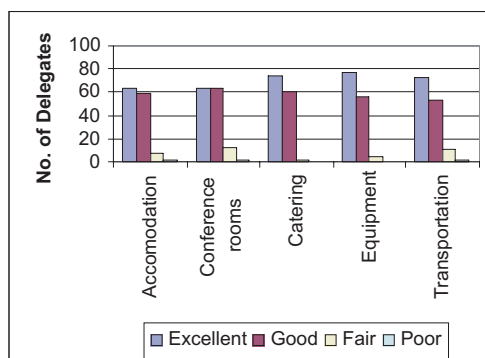
covered. Some of the seminar participants observed that majority of projects presented were donor funded and authors did not clearly show what happens when donor money runs out.

- **Linkages:** Contribution of LBT to continental initiatives such as NEPAD was lacking.
- **Cross cutting issues:** While topics were considered important the coverage was not adequate as such the information obtained was not considered useful.
- **Experiences:** Follow up of Maputo 9th Seminar deliberations was not given due weight.

7. How will you apply what you learnt in your work/life?

- **Policy, legal contracting and labour standards:** Majority of seminar participants thought that they will be able to apply the knowledge gained under this topic.
- **Impact analysis:** Building in impact measurement at formulation stage and developing indicators for measuring the impact of LBT for poverty reduction.
- **Up-scaling:** Maximisation of the use of LBT through multi-tier approach.
- **Capacity building, awareness raising and advocacy:** There is need to embark on awareness creation to enhance acceptance of LBT, and to build capacity of communities to enhance uptake.
- **Monitoring:** Monitoring and evaluating LBT works is very essential for the success and sustainability of LBT
- **Cross cutting issues:** Cross-cutting issues have to be included in the project from inception stage. Also involvement of stakeholders in the formulation of cross-cutting issues is very essential.
- **Networking:** Networking with other LBT practitioners may assist learning from each other and avoid repeating similar mistakes and facing similar problems.

8. How did you rate the seminar facilities?



Comments

- **Accommodation:** Impala Hotel was too expensive.
- **Conference rooms:** Simba hall -Excellent; Mbayuwayu hall - Poor,



too small; The pillars in the plenary room obstructed the view; Initially the rooms were not well organised; Improve A/C system.

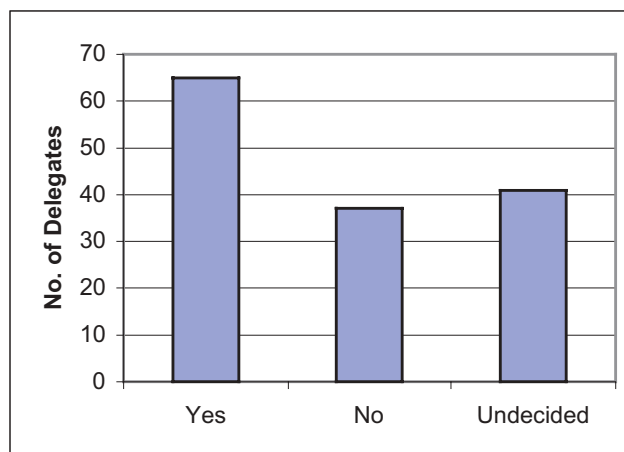
- Seminar catering: Very good; Food mostly cold.
- Hotel catering: Impala Hotel was poor.
- Equipment: Should have had two overhead projection screens on either side of the plenary room.
- Transportation: Time keeping good; Was not always available; Confusing sometimes; Should have provided air conditioning in the coach during the site seeing tours; Improve choice of vehicles used in the site visits, preferably buses; Consideration of all participants is important.
- General: Inadequate hotel rate information; only a few hotels listed making the choice limited.

9. What theme would you like to focus on for the next seminar?

- LBT for sustainable development
- Multi-sectoral approach to address poverty through LBT
- Integrated approach to poverty reduction through LBT
- Alternative use of LBT

The proposed sub-themes may include:

- Cross cutting issues
- Financing and resource allocation
- Impact analysis
- Equipment and technology
- Upscaling
- Training
- Research and development
- Case studies
- Policy
- Contracting
- Labour standards





10. Would you like to present a paper?

Participants gave possible titles they would like to present during forthcoming seminars. Most of the participants, because of the composition, indicated that they would present papers in construction industry (mainly road construction). Some indicated their willingness to prepare papers in other areas of LBT e.g. solid waste management and impact of LBT on national economy.

11. Any other suggestions/comments to improve the seminar:

- Pre-print of papers: Publish papers on website before seminar.
- Organisation: Parallel sessions to cater for different interests and provide more discussion time. Also use small discussion groups (upto 20-30 persons per group).
- Invitation and seminar notification: Send out the invitation through e-mail as well. Go inter-continental for versatile information sharing.
- Participation: Involvement of all stakeholders including grassroots (local communities).

13.5 Annex 5: List of participants

The list of participants in alphabetical order of country name.

The data contained in these tables has been extracted from the registration forms that the participants completed for the Seminar Secretariat.

No.	First Name	Last Name	Title	Position	Organization	Address	City/Town	Country	Tel.	Fax	email
1	MD. Abdur Rouf	Rouf	Mr.	Assistant Engineer	Local Govt. Eng. Dept.	LGED Bhaban (Level 8)	Agargaon, Dhaka - 1207	Bangladesh	+88 2 8119892	+88 2 8116390	rouf@lged.org
2	MD. Gholam Mustafa	Patwary	Mr.	Project Director	Local Govt. Eng. Dept.	RDP-16, LGED	Agargaon, Dhaka - 1207	Bangladesh	+88 2 9115073	+88 2 9115072	pdrdp16@lged.org
3	MD. Matiar Rahman	Rahman	Mr.	Project Director	Local Govt. Eng. Dept.	LGED Bhaban (Level 8)	Agargaon, Dhaka - 1207	Bangladesh	+88 2 9115072	+88 2 9117155	matiar61@yahoo.com, cpa@citechco.net
4	MD. Wahidur Rahman	Rahman	Mr.	Superintendent Eng. Training & Quality Control	Local Govt. Eng. Dept.	908, Shewra Para	Mirpur, Dhaka - 1216	Bangladesh	+88 2 8115605	+88 2 9144510	wahid@lged.org
5	Mohammad Lokman	Hakim	Mr.	Superintendent Eng. Training & Quality Control	Local Govt. Eng. Dept.	LGED Bhaban, Agargon, Sherebangle	Nagar, Dhaka - 1207	Bangladesh	+88 2 9113611/8114839	+88 2 8130009	lokman@lged.org
6	Syed Mahbubur Rahman	Rahman	Mr.	Executive Engineer	Local Govt. Eng. Dept.	62 West Agargaon, Sher-E-Bangla, Nagar	Dhaka - 1207	Bangladesh	+88 2 9114906	+88 2 9129058	preanka@bangla.net
7	Molathiwa Lesang	Dingalo	Mr.	Civil Engineer	Lesedi Consulting Engineers (Pty) Ltd	P. O. Box 502260	Gaborone	Botswana	+267 392 3330	+267 395 6171	dingalonorcom@botsnet.bw
8	Victor	Ponoesele	Mr.	Managing Director	Lesedi Consulting Engineers (Pty) Ltd	P. O. Box 502260	Gaborone	Botswana	+267 392 3330	+267 395 6171	ponoesele@info.bw
9	Ahmed Salih	Getahun	Mr.	General Manager	Amhara Rural Roads Authority	P. O. Box 382	Bahir Dar	Ethiopia	+251 8 200921	+251 8 201988	hasget@yahoo.com
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13.6 Annex 6: Photographs



Participants during plenary discussion



Site visits - TANROADS



Site visit - TANROADS



Site visit - Unplanned settlement Alinyanya/Sanare, Daraja Mbili Ward



Site visit - Sombetini Quarry

