

**ANALYSIS OF THE STATE OF LABOUR-BASED
TECHNOLOGY IN TANZANIA:**
A Review of Current Practice since 2005

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List of Acronyms

ATTI	Appropriate Technology Training Institute
CoET	College of Engineering Technology of the University of Dar es Salaam
CRB	Contractors Registration Board
DIT	Dar es Salaam Institute of Technology
ERB	Engineers Registration Board
JICA	Japan International Cooperation Agency
LBT	Labour Based Technology
LBTU	Labour Based Technology Unit
LGTP	Local Government Transport Programme
MLEYD	Ministry of Labour, Employment and Youth Development
MOID	Ministry of Infrastructure Development
NCC	National Construction Council
NORAD	Norwegian Agency for International Development
NTP	National Transport Policy
PMO- RALG	Prime Ministers Office – Regional Administration and Local Government
PPA	Public Procurement Act
TACECA	Tanzania Civil Engineering Contractors Association
TANROADS	Tanzania National Roads Agency
TEMESA	Tanzania Electrical and Mechanical Services Authority
TSIP	Transport Sector Investment Programme
TULS	Taking the Use of Labour Based Technology to Scale
USD	United States Dollars
VETA	Vocational and Educational Training Authority

1. Introduction

Following the 11th Regional seminar in October 2005, by Labour-based Practitioners on integrating Labour-based Approach (LBA) for Socio-Economic Development in Mombasa, a resolution was made to uphold, mainstream, and upscale the use of LBA in the provision of infrastructure and related services in order to create wealth especially among the poor communities via the following strategies:

- i) Creation of an enabling environment (through formulation of LBT¹ supportive policies, efficient institutional framework, appropriate legislation, and setting up of conducive contract conditions),
- ii) Capacity building (through research, training and awareness creation),
- iii) Increased allocation of resources (financial, equipment and information/data), and
- iv) Mainstreaming cross-cutting issues such as gender, HIV/AIDS, governance and environmental protection.

During the above mentioned seminar, participants reviewed progress made by various countries towards Arusha Seminar held in October 2003 for Labour-based Practitioners based on its recommendations. Upon the conclusion of the Mombasa Seminar, a Statement was prepared which recommended that practitioners with support from ILO (International Labour Organization) monitor the implementation of the above outlined plans. The forthcoming 12th Seminar to be held in October 2007 in Durban, South Africa, is meant to make a follow-up on the progress made towards the Mombasa Statement.

The key purpose for this report is to provide a situational analysis of the state of affairs in terms of labour-based works and to analyse and review the progress made in Tanzania since the year 2005 based on the Mombasa Statement. It describes in some of the constraints that are likely to slow down progress of labour-based approaches (LBA) and provides some recommendations for Tanzania.

2. Assessment on use of LBT in Tanzania

Realizing the potential of Labor Based Technology (LBT) in infrastructural works and poverty reduction and following different studies and experiences, the government of Tanzania through Ministry of Infrastructure Development (MOID) and Prime Ministers Office – Regional Administration and Local Government (PMO-RALG) in collaboration with Development Partners and other stakeholders including Private Sector joined efforts towards promoting maximizing and mainstreaming the use of LBT in the country. A programme titled ‘**Taking the Use of Labour Based Technology to Scale (TULS)**’ was launched in 2003 which shall offer the opportunities to employment, training, income generation and infrastructure development and maintenance thus contributing immensely to the well being of the Tanzanian society. This programme is implemented jointly by the Ministry of

¹ LBT refers to the use of employment intensive approaches to investments in infrastructure and service delivery, operation, maintenance, and the utilization of local resources.

Infrastructure Development and Prime Minister's Office, Regional Administration and Local Government (PMO-RALG) with the technical and financial support from Japan International Cooperation Agency (JICA) and Norwegian Agency for International Development (NORAD). It is comprised of two components namely:-

- (i) LBT policy formulation, sensitization and promotion.
- (ii) Capacity Strengthening of LBT training at the Appropriate Technology Training Institute (ATTI) – Mbeya;

The following paragraphs provide information on the progress attained in the country in up scaling the use of LBT. .

(A) Creation of an Enabling Environment

In up scaling the use of LBT the Government of The United Republic of Tanzania is establishing a National Framework with four main elements

- i) National LBT policy
- ii) Increased knowledge and capacity in the public and private sectors for planning and implementation of Labour Based methods in Tanzania
- iii) Enabling environment for implementation of works by private sector using LBT.
- iv) Linkages, relations, partnerships and information sharing among stakeholders and implementing agencies in a coordinated manner.

The establishment of the National Framework will be through implementation of a four-year programme, planned to commence in the FY 2004/2005. The activities for the programme include:-

- i) Formulation, adoption and publication of an appropriate and adequate national policy to guide the use of Labour-based Technology in Tanzania.
- ii) Expansion of knowledge and capacity building in the public and private sectors for the proper planning, designing and implementation of infrastructure works using Labour-Based Technology
- iii) Creation of an enabling environment for the provision and maintenance of infrastructure using labour-based technology, principally with the private sector

The Contractors Registration Board (CRB) has been registering labour based contractors as 'Specialised Contractors'. A total of 112 contractors have registered to-date with 41 of them registered in the last two years.

A National Steering Committee (NSC) has been established with representatives from MoID PMO-RALG, Ministry of Labour, Employment and Youth Development (MLEYD), Tanzania Civil Engineering Contractors Association, College of Engineering Technology of the University of Dar es Salaam (CoET), Tanzania National Roads Agency (TANROADS) , National Construction Council (NCC), Contractors Registration Board (CRB), Engineers Registration Board (ERB) and Development Partners. . This body will oversee the development of the LBT policy and follow up the implantation of the TULS.

Standard Tender/Contract documents for LBT works are being prepared. The documents are brief, contract management and supervision procedures are simple and

the documents will be issued in both English and Swahili language. The documents are expected to be ready for use by the end of October 2007. The standard documents will be suitable for both labour based and equipment based technology.

(B) Capacity Building

The higher learning institutions including the College of Engineering and Technology of the University of Dar es Salaam (CoET) and Dar es Salaam Institute of Technology (DIT) have training modules on LBT in both the undergraduate and post graduate courses. Other institutions that provide theory and practical training in LBT include ATTI, NCC and Vocational and Educational Training Authority (VETA).

The Government of Tanzania is now implementing the Project for Capacity Strengthening on LBT Training at ATTI in cooperation with JICA. **The objective** of the project is to enhance ATTI's capacity for training provision and as a National training Institute for LBT, to play a coordination role in all LBT training activities in Tanzania. **The ultimate Goal** of the project would be to realize that all LBT trainees (e.g. those from Local Government Authorities, contractors, consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT.

Presently, starting September 2007, the ATTI is conducting LBT Roll Out Seminars all over the country with the theme "**Labour Based Technology: Using Local Resources for Provision and Maintenance of Infrastructure while creating Employment to the Society**". The programmed seminars shall be part and parcel of the stakeholders' involvement in the process of the LBT Policy and Programme formulation.

The **objectives** of the seminars are to (i) get acquainted with the LBT and practice of using LBT for road works, to (ii) discuss the expanded use of LBT at local level, to (iii) develop and endorse a framework of district plan for a labor-based road programme which begins localization of expended LBT use to road works in respective participating district. The third objective is deemed strategic as it will provide a framework of future collaboration between the District, PMO-RALG, MOID/ATTI for the realization of the District's plan.

The Government is in the final stages of formulation of The Local Government Transport Programme (LGTP), a comprehensive programme for the development and maintenance of Tanzania's local government transport infrastructure. This infrastructure comprises rural and urban tertiary roads; unclassified community roads, tracks and paths; water transport infrastructure; and a number of rural airstrips. The LGTP is fully integrated into, and consistent with, the National Transport Policy (NTP) and the Transport Sector Investment Programme (TSIP) and its launch is planned before the end of 2007.

Among the benefits of the LGTP will be the creation of employment for unskilled workers through the use of labour-based methods of construction and maintenance. To ensure realisation of some of the important socio-economic benefits of the programme and to efficiently carry out works that will predominantly be relatively

small-scale and scattered, labour-based methods will be used for most of the physical works under the programme.

The programme is designed to use LBT for at least 50% infrastructure rehabilitation works by 2012. To this end, it planned to increase the number of LBT contractors from the current 112 to at least 250 by 2012 with a presence of at least 2 LBT Contractors in each LGA. The important assumption are that i) LGAs and communities, on whom the implementation will depend, take ownership of the programme and accept the approach, and ii) willingness of private sector to participate in LBT training.

(C) Allocation of Resources

The total estimated budget for the four-year TULS programme is USD 6,300,000 (Six Million Three Hundred Only). The commitment of the Government is clearly demonstrated by its acceptance to contributing 48% of the budget during the period. .

The TANROADS Agency under the MoID and the PMO-RALG commit 20% of their Roads Fund allocations for the use on Labour-Based Technology contracts. TANROADS has developed a proposal² on the use of labour-based methods as a response to this requirement and as a commitment to LBT. The Government is in the process of appointing specific senior officials with expertise in LBT in TANROADS and PMORALG to spearhead the process in their respective jurisdictions. The expected yearly allocations of the Road Funds to the two institutions from financial year 2007/08 is approximately USD 115Mil to TANROADS and USD 51Mil to PMO-RALG.

The amount of employment expected from the LGTP can be roughly estimated at 200,000 person years of employment over five years. This is the equivalent of 40,000 full-time jobs providing an average income of USD 20 mill yearly to about 480,000 households in rural areas.

Estimated Employment Created by LGTP in First Five-year Phase

Activity	Budget USD mill	% by LBM	LBM USD mill	%Wages	Wages USD mill	Employment person-yrs
Establishing Basic Access	84.43	80%	67.54	40%	27.02	54,035
Rehab/upgrading of roads	26.43	70%	18.50	40%	7.40	14,801
Urban road improvements	15.68	50%	7.84	30%	2.35	4,704
Routine Maintenance	57.49	90%	51.74	60%	31.04	62,089
Periodic Maintenance	116.05	70%	81.24	40%	32.49	64,988
TOTALS	300.08	76%	226.86	44%	100.31	200,617

(D) Mainstreaming Cross-Cutting Issues

HIV/AIDS will be addressed in each new site of labour-based operation, through partnership with existing awareness raising initiatives already operational in the country. The Government is keen to strengthen environmental management and an environmental Management Unit in the MoID has prepared the Guidelines for Environmental Management in the Road Sector (2007) which will apply in

² Local Resource Based Approach, Concept Document for a Local Resource Based Approach to Road Works, draft paper, Sept.2002

implementation of road works using labour based methods. Care shall be taken to keep to a minimum any felling of trees or expansion onto agricultural land, use of human-friendly construction materials and that all drainages are adequately built to avoid erosion through run-off and that any source of materials such as gravel pits are properly reinstated.

A further conclusion is that **how the improvement and maintenance of transport infrastructure is carried out** is important. For example, impacts on gender equality and the empowerment of women can be promoted only if careful attention is paid to these issues during implementation. Similarly, job creation will only occur on any significant scale if there is a definite policy on using labour-based techniques for infrastructure improvement and maintenance.

3. Analysis of Current Initiatives

The initiatives being taken by the various institutions in up scaling the use of LBT are encouraging and will eventually be successful. However the most important activity is getting the buy in of policy makers and the communities. At a recent stakeholders seminar on up scaling of the LBT, the following were the observations of the seminar participants on the main causes for slow adoption of LBT:

1. Lack of clear policies and laws on use of LBT
2. Limitations resulting from Public Procurement Act (PPA) no. 21 of 2004
3. Shortage of trained technical staff in LBT for both public and private sectors
4. Shortage of equipment for LBT works
5. Limitation on use of force account
6. Lack of awareness by the community on the LBT concept

To address the above, the seminar recommended as follows:

s/n	Recommendation	Implementor
1	Speed up formulation of clear policies and laws for LBT	MoID and PMO-RALG
2	Review the PPA to accommodate the use of LBT	MoID, PMO-RALG and PPA
3	Enhance training of technical staff in LBT	MoID and PMO-RALG, Training Institutions and Development Partners,
4	Facilitate availability of equipment for LBT works through equipment hire pools, hire/purchase arrangements, etc	MoID, PMO-RALG, TEMESA, CRB, Equipment suppliers, Financial Institutions
5	Review guidelines on use of force account to accommodate use of LBT	MoID and PMO-RALG
6	Undertake awareness campaign prior to implementation of LBT works	LGAs, TANROADS

The above recommendations, when implemented, will contribute significantly to up scaling the use of labour based technology in Tanzania.

5. Institutions Consulted

1. Ministry of infrastructure Development – Labour Based Technology Unit
2. National Construction Council
3. Appropriate Technology Training Institute
4. Prime Ministers Office – Regional Administration and Local Government
5. Contractors Registration Board
6. Tanzania National Roads Agency
7. Road Fund Board

Tanzania

Enabling Environment		
Policy Framework – Key Question (in bold) and Issues	Policy - status/progress as reported in Mombasa 2005	Policy - update on status/progress in 2007
<p>Is policy supportive of LBT and what work has been done to strengthen policy on LBT and make it operational over the last two years?</p> <p>(i) Is use of local resources and LBT in infrastructure investment mentioned in key policy documents, eg Vision Statement, NDP, PRSP, Macro Economic -Sector and Cross Cutting policies? If so, please give example.</p> <p>(ii) Is Privatization policy encouraging the involvement of local actors? How?</p> <p>(iii) Is Procurement policy favouring the use of local resources and LBT? How?</p> <p>(iv) What policies are ‘missing’ or need changing to increase the uptake of LBT?</p> <p>(v) What signs are there to indicate that policy promoting the use of local resources and LBT have become operational?</p> <p>(vi) If relevant policies are in place, but there is no or little activity on the ground, what could be the problem?</p>	<p>The Government of the United Republic of Tanzania launched a four year programme for up-scaling the use of LBT in October 2004. The programme will establish a National Framework for the use of LBT in the country to guide implementation and promotion of LBT in an integrated manner in line with national strategies. The programme has four main elements - national LBT policy; increased knowledge and capacity in the public and private sector; enabling environment for implementation by private sector; linkages & partnerships & information sharing between stakeholders & implementing agencies</p>	<ul style="list-style-type: none"> • The establishment of the National Framework for use of LBT is in progress by involving various stakeholders through forums. • The GoT through Labour Based Technology Up-scaling Programme is carrying out capacity building of the Appropriate Technology Training Institute (ATTI). • Awareness campaign on the use of LBT is being carried out through seminars. • Manuals, guidelines and specifications for use of LBT have been prepared and approved for use. • Use of LBT in roads maintenance and rehabilitation has recorded an increase.
Institutional Framework- Key Question (in bold) and Issues	Institutional Framework - progress as reported in Mombasa 2005	Institutional Framework - update 2007
<p>Are there institutions specifically charged with operationalising/promoting LBT works, eg a specific unit or department? If so, are they effective, if not, what institutional framework is being considered to support LBT?</p> <p>(i) What is the role of this(ese) institution? Eg planning, capacity building, resource mobilisation, legislation, standards, implementation, M&E, promotion of LBT etc?</p> <p>(ii) Are these institutions influencing across sectors, or specifically for one line ministry/sector?</p> <p>(iii) Are they supported by policy, and/or what role do they play in policy formulation</p>	<p>The Taking Labour-based to Scale Programme implementation matrix, prepared by the stakeholders, has identified responsible actors in the various activities to achieve the set objectives in the LBT national framework</p>	<ul style="list-style-type: none"> • The MoID has a LBTU whose role is to coordinate and manage LBT Up-scaling programme. • A Multi-sector National Steering Committee has been established and is operational.
Legislation - Key Question (in bold) and Issues	Legislation - progress reported as in Mombasa 2005	Legislation - update 2007

<p>Are there any certain pieces of legislation that make the use of LBT difficult or unfavourable? If so, what has been done to correct this?</p> <p>(i) Is existing (relevant) legislation in general appropriate for the promotion of LBT. eg labour laws, procurement legislation etc?</p> <p>(ii) How is relevant legislation enforced on LB projects; are there enforcement mechanisms in place?</p>	<p>Among others, the Public Procurement Act 2004, has provided for inclusion of local contracting enterprises in that:</p> <ul style="list-style-type: none"> ▪ It allows for splitting of works to enable local contractors participation. This is possible upon approval by the Public Procurement Regulatory Authority (PPRA); ▪ It has allowed for margins of preference to local contractors of up to 10% when competing with foreign contractors. A firm is local when a citizen of Tanzania owns more than 51% of the shares; ▪ Works up to TShs. one billion (about US \$ 1,000,000/=) are reserved for local contractors only, unless when and where these are not available 	<p>Implementation of progress of 2005 is ongoing.</p>
<p>Contracts - Key Question (in bold) and Issues</p>	<p>Contracts - progress as reported in Mombasa 2005</p>	<p>Contracts - update 2007</p>
<p>Are contract documents suitable for LB contracting, ie for contracting smaller domestic firms? Have there been any improvements or amendments over the last two years</p> <p>(i) Are there Special Considerations in LB contracts, eg targeting, labour management, labour standards etc?</p> <p>(ii) Are contracting procedures appropriate? Eg. packaging of works, tendering procedures, relaxed collateral requirements etc</p> <p>(iii) Are domestic contractors accessing works through competitive bidding? If not what is the main difficulty</p>	<p>A consultant is finalizing the preparation of appropriate LBT contracting document. The consultant is expected to complete the assignment by November 2005</p>	<p>Standard Tender/Contract Documents for use in LBT finalized and approved. Mass production for utilization in progress.</p>
<p>Incentives - Key Question (in bold) and issue</p>	<p>Incentives - progress as reported in Mombasa 2005</p>	<p>Incentives - update 2007</p>
<p>Are there any incentives or disincentives for the use of LBT, and what has been done over the last two years to encourage the domestic construction industry and the use of LBT?</p> <p>(i) eg regulation on import duty, taxation, joint ventures, domestic preference, etc</p> <p>(ii) Increased budgetary allocation for those councils who promote LBT</p>	<p>The issue of incentive schemes is to be taken onboard during the forthcoming research on financial and equipment availability</p>	<ul style="list-style-type: none"> • The anticipated research is in preparatory stage within the LBT Up-Scaling Programme. • Increased funding for road maintenance by 100% for the year 2007/08.
<p>Capacity Building</p>		
<p>Training - Key Question (in bold) and Issues</p>	<p>Training - progress as reported in Mombasa 2005</p>	<p>Training - update 2007</p>
<p>Is there sufficient capacity to upscale/current planned LBT works at all levels?</p>	<p>Preparations are underway to procure a consultant to develop LBT training</p>	<ul style="list-style-type: none"> • The Draft Curriculum for Training in LBT has already been prepared by Consultant. Currently

<p>(i) Is there training capacity for LBT in the country? Institutionalised? Sustainable?</p> <p>(ii) What type of training is available for various cadres and role players i.e. for both the private sector and public sector?</p> <p>(iii) Is training capacity sufficient to meet the demand?</p> <p>(iv) Is training accessible, ie can customers afford training costs?</p> <p>(v) Has LBT been introduced in under and post graduate curricula?</p>	<p>curriculum. They are targeting to have a curriculum in place by May 2006</p>	<p>being debated by Stakeholders</p> <ul style="list-style-type: none"> • Capacity building of LBT training institutions is in progress under LBT up-scaling program. • Training in under- and post-graduate is under consideration under LBT Upscaling programme.
<p>Research & Development - Key Question (in Bold) and Issues</p>	<p>Research & Development- progress as reported in Mombasa 2005</p>	<p>Research & Development - update 2007</p>
<p>Is there any other research or development with regards to LBT taking place in the country?</p> <p>(i) Have any research or development needs been identified</p> <p>(ii) Is there a system in place to collate and disseminate best practices and research findings</p>	<p>This is planned to be conducted in the second year of the implementation of the programme (2006/07)</p>	<p>This is in the preparatory stage.</p>
<p>Awareness Raising & Advocacy - Key Question (in bold) and Issues</p>	<p>Awareness raising/advocacy -progress as reported in Mombasa 2005</p>	<p>Awareness raising/advocacy - update 2007</p>
<p>What is being done in terms of promoting or lobbying for LBT in the country, and who is doing this?</p> <p>(i) Is there a national champion for LBT?</p> <p>(ii) What can be said about LBT awareness level at various levels?</p>	<p>Awareness seminars are being conducted for the Local Government Authorities. One seminar was conducted in July 2005. Two more seminars have been planned for this financial year (2005/06)</p>	<ul style="list-style-type: none"> • Awareness campaign on the use of LBT has been carried out through several seminars organised and conducted by the Ministry of Infrastructure Development (MoID) in collaboration with PMO-RALG. • The MoID has appointed a National Coordinator for LBT.
<p>Allocation of resources</p>		
<p>Financial - Key Question (in bold) and Issues</p>	<p>Financial - progress as reported in Mombasa 2005</p>	<p>Financial - update 2007</p>
<p>Is the level of financial allocation for LBT work satisfactory and what is the trend over the last two years?</p> <p>(i) What share of infrastructure investment budget is annually allocated to LBT</p> <p>(ii) Are resources ring fenced for LBT</p> <p>(iii) Which institutions are financing LBT? Government, Donors, Private financiers etc</p> <p>(iv) Are credit facilities available for LBT contractors?</p>	<p>Two separate research consultancies are planned for this financial year (2005/06) to study credit, tools and equipment quality and supply levels</p>	<ul style="list-style-type: none"> • Resources for LBT works have recorded increase during the up-scaling period. • Financing is mainly provided by the GoT with support from development partners (JICA, NORAD, DANIDA, SDC, WB, UNDP) • Limited credit facilities are provided by the banks through guarantees by the government.
<p>Equipment – Key Question (in bold) and Issues</p>	<p>Equipment – progress as reported in Mombasa 2005</p>	<p>Equipment – update 2007</p>
<p>How are private contractors accessing the necessary appropriate equipment?</p> <p>(i) If not, what is the main difficulty? Eg equipment finance,</p>	<p>No report was presented</p>	<ul style="list-style-type: none"> • Through private arrangements with equipment suppliers and banks • The government has established road

equipment availability etc (ii) What type of support is provided by Government and/or local financial institutions?		workshops for hire of equipment for road works
Linkages - Key Question (in bold) and Issues	Linkages - progress as reported in Mombasa 2005	Linkages - update 2007
How are LB infrastructure initiatives integrated into wider development plans and if so, what were the benefits, eg financial, resource utilisation, impact, sustainability etc? (i) How is information, experiences and best practices from LB infrastructure initiatives shared amongst practitioners and other stakeholders	This is planned to be fully implemented during the second year of the programme (2005/06). However, the existing links and partnerships with different actors will continue	<ul style="list-style-type: none"> • Implementation Action Programme of the Construction Industry Policy (CIP) is in place • LGTP has incorporated LBT as the main strategy for the implementation of the programme
Mainstreaming cross cutting issues		
Gender HIV/AIDS, environment, governance – Key Question (in bold) and Issues	Gender, HIV/Aids, environment, governance - progress as reported in Mombasa 2005	Gender, HIV/Aids, environment, governance - update 2007
How are cross cutting issues such as gender, HIV/Aids, environment and accountability considered at various levels of planning and implementation? What type of training is provided in this regard and how are policies and strategies enforced? (i) Are these components included in the project budgeting process as “accompanying measures” (ii) Do the execution contracts include specific conditions of contract for addressing these issues ?, If So, specify/elaborate	<p>a. HIV/AIDS will be addressed in each new site of labour-based operation, through partnership with existing awareness raising initiatives already operational in the country. During the implementation of labour-based methods, environmental issues will be addressed;</p> <p>b. Equal opportunities for women and men in the access to work and training programmes will be given priority as well as ensuring that working conditions on labour-based sites conform to the required standards</p>	<ul style="list-style-type: none"> • HIV AIDS and other cross cutting issues are being addressed • Environmental Management Guidelines have been finalized for use in the roadwork. • Awareness campaigns ongoing

