



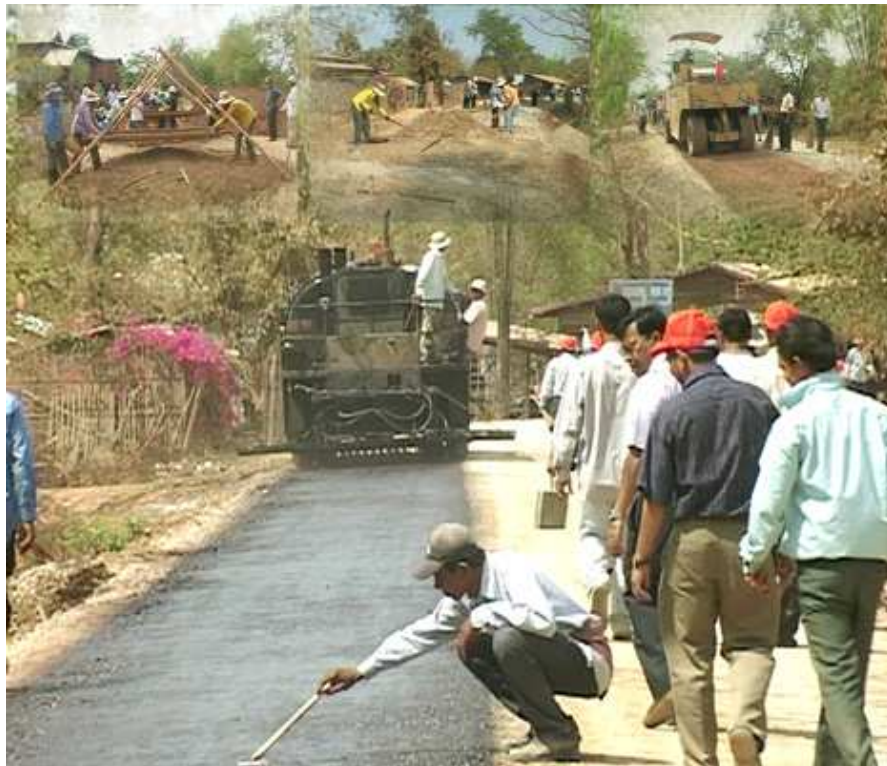
International Labour Organisation

**EIIP – Capacity Building for Contracting
Institutional Assessment and Contractor Tracing
Cambodia Contractor’s Tracing Study**

by

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Map of Cambodia



Executive Summary

During the past two decades, the ILO together with a number of development partners, have been engaged in the development of appropriate approaches and systems as well as in the implementation of numerous private sector contracting development projects for sustainable maintenance and rehabilitation of rural roads through labour-based technology. Most of these projects assisted in the development of local capacities to manage decentralised projects through improved planning, design, contract documentation, supervision and management. They would generally facilitate an improvement to the enabling environment including market access for the local construction industry, local governance and transparency and hence improved service delivery. The other main activity in the above projects was to create a cadre of capable domestic contractors for effective service delivery and it is understood that in most projects the contractor development process was regarded as highly successful. In this context, ILO has launched a “Contractor Tracing Study” in order to assess the appropriateness of its small scale contractor’s training approaches used in different countries including Cambodia.

This Study aims to analyse the strategy for the capacity building projects for contracting in construction, looking at small-scale labour-based contractors with regard to their further development and success beyond the project frame and in the open market. Whether or not the enabling environment has been developed such that these contractor firms survived beyond the project frame and whether they were able to sustain themselves in the open market and whether they still apply a local resource-based work approach. The aim of the study is to highlight the issues of the development of the individual enterprises and employability of trained staff and clarify what have been the main reasons for successes and failures. This Study in Cambodia was carried out during June 2008.

For the purpose of this Study 18 out of 78 trained Contractors were chosen through random sampling and interviewed to find out about their capacity, annual turnover, types of work, constraints and their experience with labour-based technology. The client agencies were also consulted to find their views on various issues raised by the contractors. Some important findings are:

- Appropriateness of labour-based methods for road rehabilitation and routine maintenance activities has been proved beyond any doubt and endorsed in the Rural Roads Policy and Strategic Plan of the Ministry of Rural Development.
- All stake holders in the rural development sector confirm that the efficiency of rural infrastructure service delivery can be considerably improved through participation of private sector small scale contractors.
- For most contractors, the average starting annual turnover in 1999 was US\$ 86,778 and it increased by 593% in 2006 and 861% in 2007.
- Most contractors were doing a mix of road and building works. Roads and structure works increased from 29% in 2001 to 52% in 2006 and 44% in 2007.
- With the increase in economic activities, market share for civil works in private sector increased from 5% in 2001 to 50% in 2006.
- Donor funded projects such as ADB/World Bank/KFW etc were the main provider of works in the road sector.
- Out of total 18 contractors only 2 replied that they do not use labour-based methods and use heavy equipment for road works. The remaining 16 used labour-based and equipment supported methods with lesser labour inputs.
- 16 out of 18 contractor found labour-based and equipment supported methods as most profitable

- All the 18 contractors confirmed that they had enough work available after finishing of the ADB's RIIP and NRDP projects. Work from private sector in the building sector accounted for almost 50 percent of the available work.
- Major constraints faced by the contractors were; delays in settlement of their payment certificates by the Clients; unprecedented increase in the price of construction materials; labour shortage in many provinces; high interest rates; need for further training; corruption and poor quality of supervision.
- Cambodia has gradually transited through an early period since the 1990s when the country faced the challenge of mass scale employment generation for the rural unskilled masses to a current scenario when labour shortages are being felt in the road sector due to increased labour demand in other sectors. This would mean reduced participation of labour and increased deployment of equipment for certain road sector activities.
- On account of the increase in wage rates and labour shortages, the contractors have improvised their work methods through use of labour-based and equipment supported methods for road rehabilitation. For routine maintenance works, labour-based methods through Community Contractors remains the preferred approach by the client Ministries.
- Future training inputs for local contractors should focus on Labor-Based and Equipment Supported technology with special emphasis on the use of bituminous roads or other innovative surfacing materials. The training programmes should provide special focus on financial management, asset management, cost-benefit analysis and resource planning for the contractors.
- The supervisory staff in the Client Ministries would also require continuous training to enhance their capacity and understanding about the upgrading of existing gravel roads to bituminous standards in a phased manner.

The results of the tracing study are quite encouraging. It is evident that definite improvements in the development enabling environment for the private local contracting industry have been made through various training interventions. The Study findings provide an insight of the constraints and challenges faced by the contractors and the clients.

Acknowledgements

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Contractor's Tracing Study Report Cambodia

1. General - Introduction

Cambodia is one of the poorest countries in Asia. The country ranked 129th out of 177 nations on the Human Development Index in the 2006 Human Development Report. Life expectancy at birth is 56.5 years. 85% of the 13.091 million population lives in rural areas. Poverty reduction in the country will largely depend on the reduction of rural poverty and inequality. Lack of access is one of the root causes of poverty. There is overwhelming evidence that the provision of rural roads is a critical factor in reducing poverty. Access is an important factor in rural development. People need adequate access to water, land, energy, health services, education, transport services and markets. Lack of access limits the opportunities that people have to improve their social and economic well being. Therefore improving access and reducing poverty are linked.

The Cambodian economy is improving with an estimated economic growth of 9% for 2007. Overall poverty incidence is 36% and inequality has also been assessed as very high, particularly along urban-rural lines. Most economic growth of the past decade has been confined to urban enclaves, while rural growth, especially in staple food production, has barely kept pace with the increase in population. The daily wage for rural labourers does not cover a family's basic nutritional requirements, leaving nothing for health, clothing and education. The informal economy (IE) plays a very important role in the Cambodian economy, accounting for an estimated 62 % of GDP, and providing employment to approximately 85% of the Cambodian workforce. Both men and women in the informal economy earn very low incomes.

To promote economic growth and create jobs in rural areas, the Government aims to restore road access throughout the country. The last decennium has seen substantial progress, with rehabilitation of the national highway network nearing completion and rehabilitation of provincial and rural roads progressing. The growing number of rehabilitated roads makes maintenance urgent, especially of rural secondary and tertiary roads, which are typically rehabilitated to gravel or laterite standard and deteriorate fast, within 3–5 years, if not maintained. Insufficient road maintenance may ultimately render unattainable the goal of providing countrywide access.

In Cambodia, labour-based local resource-based approaches for rehabilitation and maintenance of rural infrastructure have been successfully exercised through force account works followed by the involvement of private sector small scale contractors. In early 1990, labour-based methods were introduced through various ILO managed projects. It was relatively easy to establish common standards, work methods and procedures through central government controlled projects. The socio-economic benefits of large scale employment generation were obvious and the financial comparison with equipment-based methods seemed to be favourable.

Subsequently, ILO shifted its strategy to improve service delivery through the development and involvement of private sector. The shift to more decentralised projects and private sector execution, however, has been a major challenge. There was very limited capacity to manage infrastructure projects effectively. Local consultants and contractors who could take over from

the force account units were not available. Adequate management, contracting and working procedures for locally managed projects and executed by small-scale and/or emerging contractors had to be developed and tested first. Over the past fifteen years, a number of ILO and other donor funded projects had been involved in the development of a cadre of labour-based small scale contractors and institutional strengthening of MRD /MPWT in effective planning designing, monitoring and execution of labour-based road works.

During 1992-2008, the ILO, together with a number of development partners, have been engaged in the development of appropriate approaches and systems as well as in the implementation of numerous contracting development projects. Most of these projects assisted in the development of local capacities to manage decentralised projects through improved planning, design, contract documentation, supervision and management. They would generally facilitate an improvement to the enabling environment including market access for the local industry, local governance and transparency, and hence ensure quality results and sustainable jobs. The other main activity in the above projects was to create a cadre of capable domestic contractors for effective service delivery and it is understood that in most projects the contractor development process was regarded as highly successful.

In this context, ILO has launched a “Contractor Tracing Study” in order to assess the appropriateness of its small scale contractor’s training approaches used in different countries including Cambodia. This Study analyses the strategy for the capacity building projects for contracting in construction, looking at small-scale labour-based contractors with regard to their further development and success beyond the project frame and in the open market. Whether or not the enabling environment has been developed such that these contractor firms survived beyond the project frame and whether they were able to sustain themselves in the open market and whether they still apply a local resource-based work approach.

The Study will enable the development partners together with the ILO to assess the long-term sustainability of the approach with regards to local contracting capacity development. The Study focuses on the following aspects:

- Efficacy of the enabling environment that local institutions have developed to promote participation of private sector and the capacity of local institutions to effectively plan, design and monitor rural infrastructure works;
- Small-scale labour-based contractors and consultants with regard to their further development and success beyond the project frame and in the open market;
- Employability of trained staff.

The aim of the study is to highlight the issues of the development of the individual enterprises and employability of trained staff and clarify what have been the main reasons for successes and failures. A further aim of the study is to provide inputs to the overall socio-economic impact of the approach, particularly with regards to poverty related issues. The Terms of Reference of the Cambodia’s Contractors Tracing Study are shown in Annex-1.

2. Overall Transport Sector Description in Cambodia

2.1 Transport Sector Policies and Strategies

A recent draft national transport policy by the Ministry of Public Works and Transport (MPWT) contains a series of statements, and is a follow-up step to the 2002 transport sector strategy. The main emphasis of the transport sector policy is to link transport sector investments with poverty alleviation, to make provision for adequate maintenance funds for sustainable sector development, and to encourage private sector involvement.

Objective of Strategic Plan

To improve social and economic conditions of rural Cambodia with an emphasis to improve livelihood of the rural poor and to create livelihood opportunities for women in rural areas, through sustainable improvement and maintenance of rural roads

A draft rural road policy of the Ministry of Rural Development (MRD) updated in 2002 led to the formulation of “Strategic Plan for Rural Roads” in August 2007. This Plan elaborates how the policy directions will be implemented, and is fully aligned with the draft policy.

The purpose of the rural roads strategic plan is to set out the long-term direction and framework for rural road development and management in Cambodia, so that there is a consistent and unified approach to the planning, improvement and maintenance of rural roads. The contents of this document are designed to provide a secure basis on which MRD can strengthen its capability to plan, design, maintain and manage rural roads in a sustainable way; and the RGC and donors can determine appropriate and complementary funding and other support for the sub-sector. The main targets in this strategic plan are to bring all the rural roads up to maintainable standards within 20 years in a phased manner. The Strategic Plan has identified four categories of issues as critical to the achievement of this objective: programming and planning issues; financing issues; sustainability issues and institutional aspects.

2.2 Transport Sector in Cambodia

The transport sector in Cambodia comprises roads, railways, inland water and air transport. The shares of passenger and cargo transported by road far outweigh the shares by other modes. Roads in Cambodia are divided into four broad categories: national, provincial, tertiary and sub-tertiary roads, and there are three categories of sub-tertiary roads. While the MPWT is responsible for the National and the Provincial roads, MRD is responsible for the Tertiary and Sub-tertiary roads.

The inland waterway system plays an important role in the movement of freight and passengers in Cambodia. However, its importance can be considered second to road transport. The total navigable waterway length is 1,750 km. Only a third of this length (580 km) is navigable year round (World Bank, 2004). The system consists of the Mekong River and its tributaries, the Tonle Sap Lake and its tributaries, the Tonle Sap River, and the Bassac River. The Mekong River, Tonle Sap and Bassac rivers account for approximately a half of the navigable inland waterway length.

Railways play a minor role in the transport sector. Royal Railways of Cambodia (RRC) is a state owned enterprise under MPWT. Air transport in Cambodia caters mainly to passenger traffic and although cargo movement by air has increased considerably in the recent years.

MPWT carries the overall responsibility for the management and development of rail, air and inland water transport in Cambodia.

2.3 Labour-Based Appropriate Technology in Road Works

In Cambodia, there is clear evidence of the advantages of the use of labour-based methods over equipment-based methods in road works. A Cambodian study commissioned by the ILO ASIST-AP in 2002 highlighted several advantages of the use of labour-based methods over equipment-based methods in rural road construction (Munters, 2002). The main advantage is the high employment generation potential of labour-based techniques: labour-based methods have the potential to generate 18 times more employment than equipment-based methods. The study quoted that the use of labour-based methods in upgrading, combined with maintenance, of the existing maintainable network, could generate between 3.6 to 6.5 million person days of work per year. Labour-based methods were also considered to be cost-effective. The estimated break-even wage rate to bring the cost of the labour-based approach into parity with its equipment-based counterpart was US\$ 2.1 per day. The MRD Policy strongly advocates use of the labour-based appropriate technology (LBAT) in the construction and maintenance of rural roads. The positive factors on the side of LBAT are that Cambodia already has considerable experience in the use of LBAT.

2.4 Involvement of Private Sector in Development and Maintenance

The role of the private sector has been highlighted in the National Strategic Development Plan (NSDP) 2006-2010. The “Rectangular Strategy” of the government also highlights the need for the promotion of the private sector which is considered as the “engine of growth”. The private sector is responsible for the provision of an overwhelming majority of jobs in Cambodia. Small and Medium Enterprises (SMEs) make up 99% of the enterprises and half of the employment in the private sector. The private sector in the construction industry consists of individual entrepreneurs (often informal), SMEs, and international companies that are active in Cambodia. The draft policy for rural roads strongly encourages the use of local private sector contractors in construction, rehabilitation and maintenance of roads.

2.5 Road Infrastructure

Road transport plays a major role in the transportation of passengers and cargo in the country. The road network is approximately 38,500 kilometres, of which approximately 10,500 km are national roads and provincial roads under the responsibility of MPWT, and approximately 28,000 km are tertiary roads under the responsibility of MRD. The table below depicts the road classification and division of responsibilities. Since mid-1990 there has been a major effort to improve the network. However, the road network is still in poor shape. A road condition survey in 2002 shows that only a fourth of the national and provincial road network is in good to fair condition. The tertiary and sub-tertiary road network has only 16 percent in fair condition. In order to overcome its road network problems, the Government established a Road Fund in 2000. Since January 2002 it has been financed from surcharges on fuel. However, other challenges remain:

- As per government reforms and Decentralisation & Deconcentration Policy (D& D Policy) infrastructure provision and funding is being devolved to the provinces, but most lack the management capabilities required to effectively monitor the road network and prepare and execute plans for road maintenance.
- Small-scale local road contractors that can effectively execute basic road maintenance are emerging slowly due to lack of demand. Thus, international contractors, the

remaining force account units under Ministry of Public Works and Transport (MPWT) perform whatever road maintenance is taking place. All of these employ equipment-intensive techniques that are ill-suited for maintenance of local roads and generate few job opportunities.

- Although MPWT and MRD are the main actors in the management of roads in Cambodia, there is a lack of coordination between them in terms of operation and capacity building. Typically, most provinces have few maintainable roads, about 300 km, and moreover their prioritization and administration at provincial level is fragmented between the provincial offices of the two ministries. The small volume of roads and funding constraints hinders professionalism in road maintenance management.

Type	Definition	Responsibility
National Roads	<ul style="list-style-type: none"> ▪ Roads that connect the capital to the main international border crossings and/or provincial capitals. 	MPWT
Provincial Roads	Roads that connect: <ul style="list-style-type: none"> ▪ District centres to provincial centres or to primary roads ▪ A provincial centre to another adjacent provincial centre ▪ Industrial, commercial, tourist and other centres that have large transport needs 	MPWT
Tertiary Roads (T roads)	<ul style="list-style-type: none"> ▪ District to district roads 	MRD
Sub-tertiary Roads: Sub-tertiary Road Type 1 (ST1 Roads) Sub-tertiary Road Type 2 (ST2 Roads) Sub-tertiary Road Type 3 (ST3 Roads)	<ul style="list-style-type: none"> ▪ District to commune ▪ Commune to commune ▪ Commune to village or village to village 	MRD

National and Provincial Road Network

Type	Length (km)	Good and fair (km)	Poor (km)	Bad (km)
National Roads	4,757	1,186	2,439	1,132
Provincial Roads	5,700	1,291	2,426	1,983
Total	10,457	2,477	4,865	3,115
Percentage		24%	47%	30%

Source: World Bank (2004)

To promote economic growth and create sustainable jobs in rural areas, the Government launched various initiatives as listed below to restore road access using employment intensive technology throughout the country. The Government's Rural Roads Strategic Plan has set out long-term directions and a framework for the development and management of rural roads so that there is consistent and unified approach to planning, rehabilitation and maintenance of rural roads. The strategic objective of this Plan is "Improve social and economic conditions of rural Cambodia, with an emphasis on improving the livelihood of rural poor and creating livelihood opportunities for women in rural areas, through sustainable improvement and maintenance of rural roads" The Strategic Plan aims to bring the entire rural roads network to maintainable condition within 20 years in a phased manner.

S.No	Project	Period	Implementing Agency	Key Features
1	Various Donor Funded ILO Projects in Siem Reap, Pursant, Banteay Meanchey, Kandal and Battambang	1992-1998	MRD	Force Account Labour-Based Road Rehabilitation and Maintenance
2	ILO - Upstream Project, CMB/97/MO2/SID	1998-2001	MRD	LBAT Road Works, 22 Small Scale Contractors Trained
3	Tertiary Roads Improvement Program TRIP	1996-1999	MRD	US\$ 5.5 Million
4	Tertiary Roads Improvement Program TRIP II	1999-2002	MRD	427 km rural roads
5	Tertiary Roads Improvement Program TRIP III	2002-2004	MRD	US\$ 3.5 Million, 4 Provinces
6	Tertiary Roads Improvement Program TRIP IV	2005-2008	MRD	Eu 7.6 Million, 4 Provinces
7	SEILA Programme	1996-2006	Local Govts	US\$ 100 Million, Rural Infrastructure, Poverty Alleviation
8	Rural Infrastructure Improvement Project, ADB Loan 1385-CAM(SF)	1996-2001	MRD	US\$ 31.48 Million, 600 km rural roads in 6 Provinces, 23 Small Scale Contractors
9	North Western Rural Development Project ADB Loan No. 1662-CAM(SF), ILO TA IRAP Comp.	2002-2008	MRD	US\$34.74 Million, 4 provinces, IRAP, Contractor's Development
10	Provincial Rural Infrastructure Project, World Bank IDA Credit 38221	2004-2008	MRD/MPWT	US\$ 20 Million, 4 provinces
11	Mainstreaming Labour-Based Road Maintenance to the National Road Network, ADB/JFPR TA 9048, ILO TA	2006-2008	MRD/MPWT	US\$ 5 Million, 3 Provinces, 600 km road maintenance, 100 km bituminous roads

3. Local Small Scale Road Contractors Development in Cambodia

Initiatives to involve the local construction industry commenced on a trial basis in the ILO rural road reconstruction programme in the mid 1990s, at which time the first capacity assessments of the industry were carried out. The capacity of the local construction industry in Cambodia has gradually developed over the past decade. In the past, there have been limited opportunities for local companies given the dominance of foreign contractors and consultants, and the use of force account methods. However, there is now a growing capability due to an increased volume of joint-venture and sub-contracted works under different donor-funded projects. Various training initiatives through donor-funded projects have resulted in the availability of an increasing number of LBAT contractors in the country.

The MRD and its Provincial Departments (PDRD) use the following three different models for the implementation of the tertiary road related road works:

- (i) Implementation by private contractors through local competitive bidding;
- (ii) Implementation through the use of force account methods;
- (iii) A combination of force account and private sector: under this method while the private sector supplies (some or all) the equipment and materials, the actual work is carried out by the public sector using government equipment and force account labour.

In 1998, with the launching of the ILO Upstream Project and the ADB financed Rural Infrastructure Improvement Programme (RIIP), the private sector was given the lead role in both improvement works as well as road maintenance. Different categories of contractors were used for works with varying complexity and size. Local building contractors were utilised for the construction of culverts and small cross-drainage structures. Large construction companies were engaged for the supply of gravel and medium-sized contractors with some civil works experience were trained in labour-based road works and thereafter engaged in the construction and maintenance of rural roads. At the same time, petty contractors were mobilised in the communities along the roads to carry out routine road maintenance. The RIIP also carried out a substantial amount of building works for schools, government offices and markets, which was also carried out through the engagement of local contractors. Subsequently, the private sector development and training inputs were further carried on until 2008 by the ADB's North Western Rural Development Project and the ADB/JFPR project.

3.1 General Features of the Local Road Construction Industry

ILO has been the lead agency in the introduction of LBAT in the development and maintenance of rural infrastructure in Cambodia. During the 1990's, LBAT was introduced by the ILO through force account methods wherein thousands of unskilled workers were employed and engaged in rural road works and restoration of irrigations systems. Thereafter, ILO shifted its implementation strategy through private sector local small scale contractors. The emphasis on small scale contractors development was based on the idea that they had limited amount of equipment and capital and would therefore adapt easily to the use of appropriate technology. Cost effectiveness, profitability and long term sustainability were the prime consideration for the local contractors to remain in the business.

Road Contractors in Cambodia could be classified under two categories. First category is the unregistered petty contractors carrying out labour-based road maintenance. They could also be termed as Community Contractors chosen in consultation with the Commune Chiefs, responsible for 10-15 km of routine road maintenance activities.

Second category is the small/medium scale contractors who were formerly registered as tradesman or building contractors, possessed some basic equipment and entrepreneurial skills. Although their past experience has been building works, they were established business entities with administrative and technical staff that could be further trained for effective execution of labour-based road works.

3.2 Implementation Capacity of Government Institutions

Initially, the institutional capacity of MRD and its provincial departments was weak. The implementation capacity of the MRD and its provincial institutions gradually improved over the last decade through various training programmes in labour-based contracts management. Developing local contractors requires an efficient contracts management organisation which can effectively supervise and take care of all financial and administrative responsibilities in a transparent manner. During 1998-2008 various training programmes were organised by ILO, RIIP, NRDP and ADB/JFPR projects to strengthen the capacity of MRD staff to efficiently manage and implement labour-based rural infrastructure works carried out by the private sector. This training also installed systems and procedures for contracts management, financial management, procurement of goods and services in a transparent manner. However, the MPWT lagged behind in acquiring LBAT contract management skills as its areas of operations were mainly confined to heavy equipment based technology by foreign contractors. In 2006, the ADB/JFPR Mainstreaming Project took lead in reducing this LBAT gap between the MRD and MPWT with the establishment of Joint Road Maintenance Unit in Battambang comprising of staff from the two Ministries.

3.3 Training for the Development of Local LBAT Contractors & Supervisory Staff



Since 1998, the following ILO supported and ADB funded projects took a lead in the development and training of small scale LBAT contractors and capacity building of the MRD/MPWT staff:

- ILO Upstream Project 1998-2001
- ADB - Rural Infrastructure Improvement Project (RIIP) 1996-2001
- ADB – North Western Rural Development Project (NRDP) 2002-2008
- ADB/JFPR – Mainstreaming Labour Based Road Maintenance (ILO TA) 2006-08

The key features of the various training programmes for the development of small scale contractors in Cambodia were:

- the need for training and development was not only limited to contractors but equally important for Client's supervisory staff;
- training focused on LBAT, contracts management, routine and periodic maintenance, resource planning and business management;
- training comprised of theoretical class room training followed by practical training at actual road construction and maintenance sites;
- training providers provided full technical backstopping to the contractors during their trial contracts in resource planning and all other aspects of project implementation;
- Client staff (MRD & PDRD staff) also learnt new guidelines and procedures regarding daily, weekly reporting, preparation and certification of payment certificates and monitoring of quality control as per contract conditions and specifications;

A typical Profile of Small Scale Contractors Training Course for the rehabilitation of paved and unpaved roads by the ILO/ADB/JFPR Project is shown in Annex- 2 .

4. Findings - Contractors Tracing Study

The Study findings presented below have been grouped under three categories:

1. Implementing Agencies – Institutional Developments
2. Progress – Local Contractors
3. Constraints

4.1 Implementing Agencies – Institutional Developments

Standard Operating Procedures

The Royal Government of Cambodia in order to streamline its operating policies and procedures based on currently accepted international best practices has developed and introduced Standard Operating Procedures (SOPs) for financial management and procurement in active collaboration and training with the World Bank and the Asian Development Bank. The main purpose in the development of these SOPs is that all line Ministries and specialized agencies must take full responsibility for the activities mandated to them. The streamlining of policies and procedures is also in line with the Government's commitment to the donor agencies to improve the effectiveness and utilization of the aid provided to the country.

Over the past 10 years, there has been considerable institutional capacity building in MRD, MPWT and their provincial departments. The Ministry of Economy & Finance (MEF) in collaboration with the ADB and the World Bank have introduced Standard Operating Procedures (SOP) for administrative, financial and procurement in respect of all externally funded projects in Cambodia. The SOPs have been officially endorsed by the Government in 2006 by issuing Gazette Notification for their adoption by all the official agencies. The MEF has also organized various training courses for clear understanding of all the staff of the implementing agencies. A large

number of MRD staff has been trained through their deployment in Project Implementation Units (PIUs) of various projects where they had complete exposure and on the job training not only in the technical issues but also procurement of goods and services, engineering designs, preparation of bid documents, pre-qualification of contractors, invitation of bids, evaluation of bids, supervision and monitoring of works executed by the contractors, preparation and scrutiny of payment certificates, financial management in accordance with the SOPs and guidelines of the ADB and the World Bank. All the donor funded projects are subjected to external and internal audit as per the established guidelines in the SOPs. Some teething problems in clear understanding of the Procurement Manual, the Financial Management Manual of the SOP faced by the implementing agencies are being noted and resolved through period reviews and workshops organized by MEF. Both MRD and MPWT feel that the procurement of goods and services including bidding for contracts has improved considerably due to standardized procedures (SOPs).

With the launching of Rural Roads Policy (2002) and Rural Road Strategy Plan in 2007, MRD has set out clear objectives and the road map for the development and maintenance of rural roads. The Rural Roads Standards, Specifications for Road Works and the Bidding Documents for Local Competitive Bidding have been standardized and officially endorsed by MRD for adoption by all the nation wide projects. Most of these Bid Documents, Design Standards and norms for execution were first developed by the RIIP project (1996-2001).

The MPWT and its provincial departments have developed their capacity to a lesser extent for the application of LBAT in their operational activities.

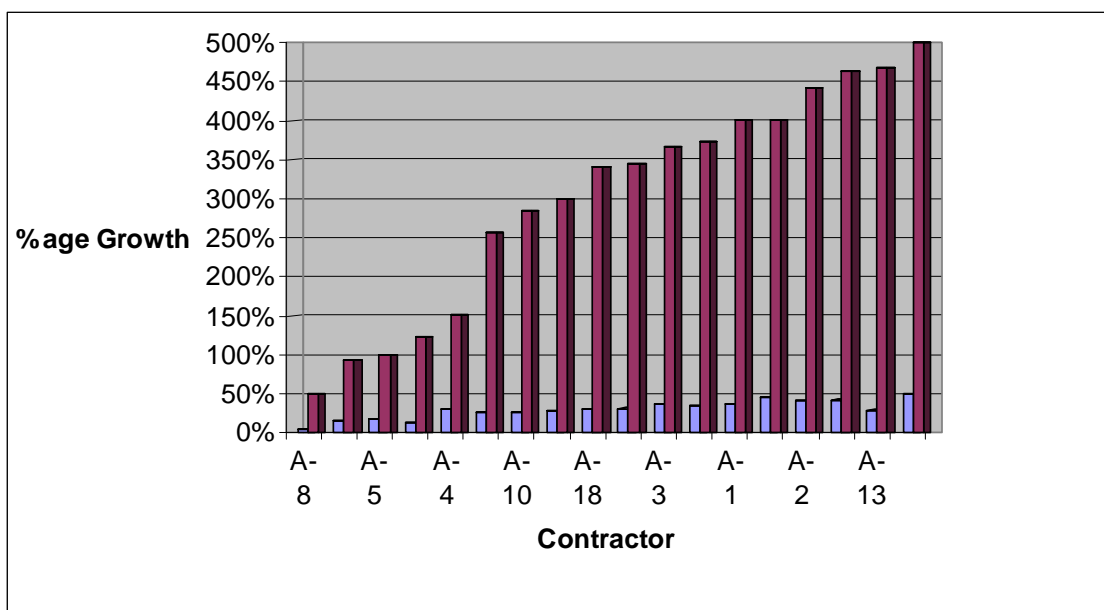
4.2 Progress Local Contractors

A total of 78 small scale contractors were trained during the last decade through various donor funded projects (List Attached Annex-3). For the purpose of this Study 18 Contractors were chosen (List Attached Annex-4) through random sampling and interviewed to find out about their capacity, annual turnover, types of work and their experience with labour-based technology. For the purpose of analysis of data obtained and in order to keep the identity of contractors confidential, they have been allocated Code Number A-1 to A-18. A detailed Questionnaire (Annex-5) was developed to record the above details during the interview.

4.2.1 Contractors - Capacity & Assets

The table below indicate the starting asset value and June 2008 asset value of 18 contractors. It would be seen that their assets tripled over the past 7-8 years at an annual average increase of 29.83%. Percentage growth varies from 50% to 500%.

Code No.	Starting Asset Value US\$	Starting Year	Asset Value Jun-08 US\$	Increase US\$	Total Increase %	Average Annual Increase %
A-1	100,000	1998	500,000	400,000	400%	36%
A-2	120,000	1998	650,000	530,000	442%	40%
A-3	150,000	1999	700,000	550,000	367%	37%
A-4	20,000	2004	50,000	30,000	150%	30%
A-5	50,000	2003	100,000	50,000	100%	17%
A-6	70,000	1999	250,000	180,000	257%	26%
A-7	25,000	1999	160,000	135,000	540%	54%
A-8	20,000	1999	30,000	10,000	50%	5%
A-9	45,000	1999	100,000	55,000	122%	12%
A-10	130,000	1998	500,000	370,000	285%	26%
A-11	70,000	2000	350,000	280,000	400%	44%
A-12	130,000	2003	250,000	120,000	92%	15%
A-13	90,000	1993	510,000	420,000	467%	29%
A-14	95,000	1998	450,000	355,000	374%	34%
A-15	90,000	1998	400,000	310,000	344%	31%
A-16	80,000	1998	450,000	370,000	463%	42%
A-17	30,000	1998	120,000	90,000	300%	27%
A-18	25,000	1998	110,000	85,000	340%	31%
Total	1,340,000		5,680,000	4,340,000		



4.2.2 Annual Turnover

The average annual turnover for the 18 contractors is tabulated below. The average starting annual turnover was US\$ 86,778 and it increased by 593% in 2006 and 861% in 2007. This clearly reflects that on an average all the companies were gainfully engaged during the past 6-7 years. A similar growth trend has been observed in the assets of these contractors.

Contractor Code	Company's annual turnover					Percent Change		
	Start		2006	2007	June - 2008	Start-2006	Start-2007	Start-2008
	Year	US\$	US\$	US\$	US\$	%	%	%
A-1	1998	50,000	120,000	815,000	1,503,000	140%	1530%	2906%
A-2	1998	100,000	447,130	798,353	1,500,000	347%	698%	1400%
A-3	1999	100,000	588,600	910,000	945,000	489%	810%	845%
A-4	2004	20,000	80,000	70,000	20,000	300%	250%	0%
A-5	2003	24,000	32,000	35,000	50,000	33%	46%	108%
A-6	1999	70,000	600,000	520,000	560,000	757%	643%	700%
A-7	1999	50,000	200,000	200,000	250,000	300%	300%	400%
A-8	1999	30,000	55,000	40,000	31,250	83%	33%	4%
A-9	1999	50,000	154,000	380,000	323,000	208%	660%	546%
A-10	1998	70,000	427,624	727,000	1,307,000	511%	939%	1767%
A-11	2000	10,000	80,000	330,000	567,500	700%	3200%	5575%
A-12	2003	380,000	440,000	480,000	350,000	16%	26%	-8%
A-13	1993	20,000	400,000	450,000	400,000	1900%	2150%	1900%
A-14	1998	200,000	900,000	780,000	2,920,000	350%	290%	1360%
A-15	1998	200,000	230,000	600,000	1,420,000	15%	200%	610%
A-16	1998	100,000	2,300,000	2,500,000	1,500,000	2200%	2400%	1400%
A-17	1998	50,000	800,000	300,000	220,000	1500%	500%	340%
A-18	1998	38,000	350,000	350,000	200,000	821%	821%	426%
Total		1,562,000	8,204,354	10,285,353	14,066,750	Turnover start 06-07-08		
Maximum		380,000	2,300,000	2,500,000	1,500,000	2,200	3,480	2,906
Average		86,778	455,797	571,409	781,486	593%	861%	1127%
Minimum		10,000	32,000	35,000	31,250	15	26	-8

4.2.3 Types of Work

The findings of the types of work and market share are summarized below

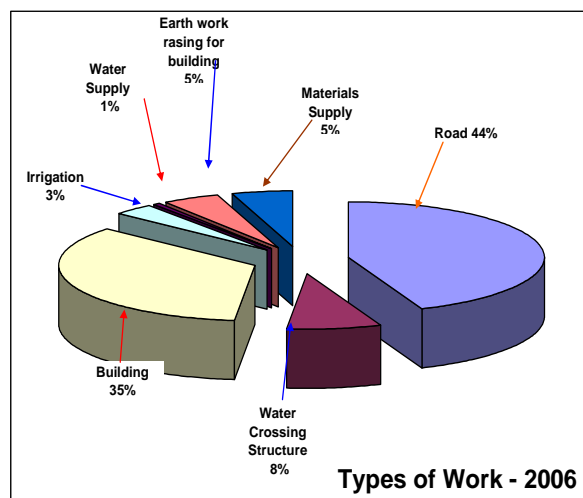
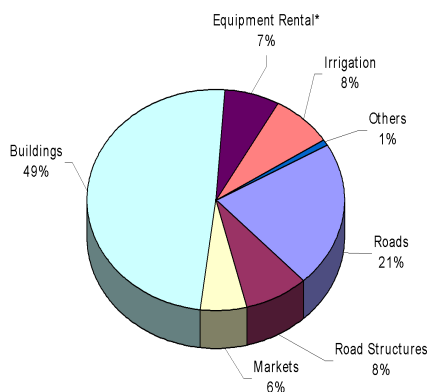
No.	Road	2001	2006	2007	June-2008
1	Road Works	21%	44%	31%	26%
2	Road Structures	8%	8%	13%	4%
3	Buildings	49%	35%	39%	42%
4	Irrigation	8%	3%	5%	19%
5	Markets	6%	0%	0%	0%
6	Equipment Rental	7%	0%	0%	0%
7	Materials Supply	0%	5%	6%	6%
8	Earth Works Rasing for building	0%	5%	0%	2%
9	Water Supply	0%	1%	6%	2%

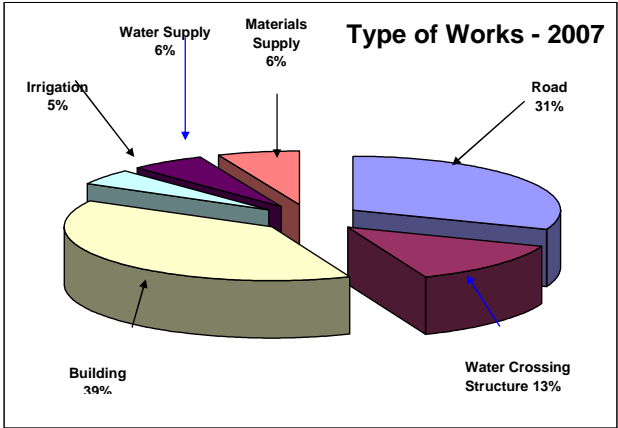
It would be seen from the table above that most contractors were doing a mix of road and building works. Roads and structure works increased from 29% in 2001 to 52% in 2006 and 44% in 2007.

With the increase in economic activities, market share for civil works in private sector increased from 5% in 2001 to 50% in 2006. Donor funded projects by ADB/World Bank etc were the main provider of works in the road sector.

Types of Work	Road Construction	Road Maintenance	Building	Irrigation	Water Works	Drainage Works	Sanitation
No. of Contractors	18	13	13	14	4	15	6

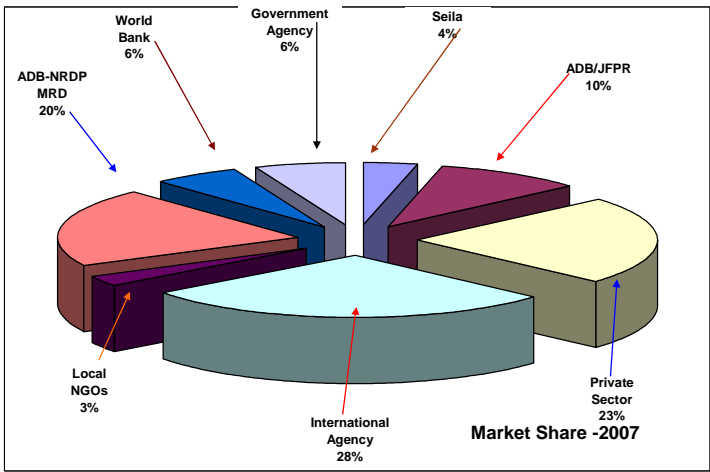
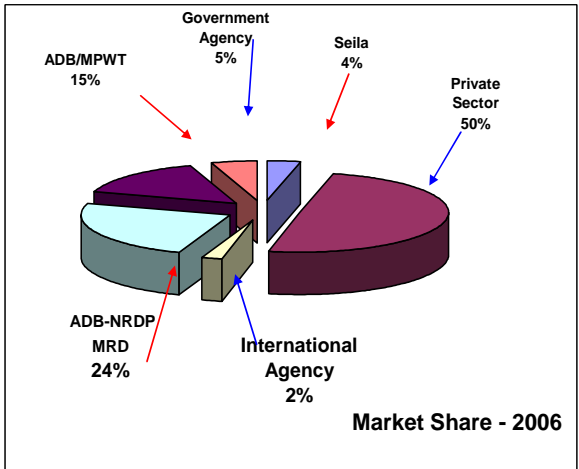
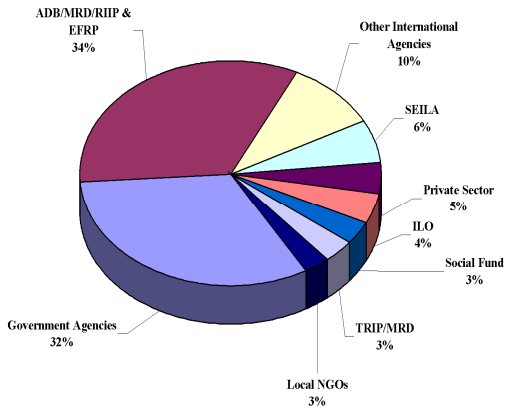
Types of Work – 2001





4.2.4 Market Share

Market Share - 2001



4.2.5 Current Work Methods

Although all the contractors interviewed participated in labour-based road rehabilitation and maintenance training, they were asked about their views on the sustainability of labour-based methods. Out of total 18 contractors only 2 replied that they do not use labour-based methods and use heavy equipment for road works. The remaining 16 use labour-based and equipment supported methods.

4.2.6 Profitability – Work Methods

16 out of 18 contractor found labour-based and equipment supported methods as most profitable. 2 contractors responded that the equipment based methods were more profitable.

4.2.7 Availability of Work

All the 18 contractors confirmed that they had enough work available after finishing of the ADB's RIIP and NRDP projects. Work from private sector in the building sector accounted for almost 50 percent of the available work. Road construction accounted for maximum availability of work during the past 5 years.

Types of Work Availability	Road Works	Building	Earth Works	Irrigation
No. of Contractors	11	8	4	6

5. Constraints

The following constraints were identified by the contractors and the implementing agencies in the development of local road construction industry:

Delayed Payments

Most contractors complained about the late settlement of their payment certificates by the clients. In some cases, the reported delays were as long as 6 months which led to acute cash-flow problems and resulted in cost increase and delays in the completion of works. The Client Ministries MRD/MPWT acknowledged delays in payments to the contractors and informed that this was mainly because of delays in the replenishment of funds by MEF.

Price Increase

Many contractors bitterly complained about the absence of a "Price Escalation Clause" in the standard bid documents for local contractors. They stated that during 2007-2008, there had been a sharp global increase (50-70%) in the cost of construction materials such as cement, steel, bitumen, stone chippings and diesel. In the absence of any price increase compensation clause in the signed contract agreements, the clients refused to pay any compensation to the contractors. As a result, many of the contractors were forced to abandon their contracts unfinished resulting in heavy losses. The contractors suggested that the government and donor agencies should consider such genuine price increase which was unforeseen and unprecedented and try to encourage the contractors to finish the works in hand by paying some reasonable compensation.

The Client Ministries MRD/MPWT acknowledged the sharp increase in the prices of construction materials and stated that since most contracts were of short term duration (6 months), the increase in prices was not foreseen and hence the price escalation clause was not included in the bid documents in consultation with the ADB. Although MRD/MPWT were in favour of payment of some reasonable compensation to the contractors, MEF turned down such requests due to procurement regulations.

Labour Shortage

Most contractors complained about availability of unskilled labour for deployment on LBAT works. This problem has become more pronounced during the past 2-3 years. They informed that in the recent past, there has been a shift in preference of unskilled labour as they prefer to work in the building and agriculture sectors where there is more continuous demand and the wages are also 20-30% higher than the road sector. This problem is more acute in provinces which are bordering Thailand where local labour prefer to work across the border at US\$ 3.5 to 4.0 per day. With these labour shortages, the contractors were obliged to reduce the labour inputs by increasing the use of heavy road construction equipment. The labour shortages and higher wages also adversely affects the economic viability of labour-based road works. On the contrary, with increased operational costs of equipment based works, there is now considerable scope for increasing the wage rates for road works without affecting the competitiveness of LBAT

Training

Most contractors acknowledged that the training provided by the ILO and other ADB funded projects has been very useful in their development of their companies and staff. Some contractors were of the view that attending client sponsored training was a "Entry Ticket" for becoming eligible to bid for road works. But they felt more than satisfied with the newly acquired skills in contracts management, analysis of rates, clear understanding of the bidding procedures and bidding documents helping them to use these skills when submitting bids and during execution of works.

Many contractors highly appreciated the latest training programmes organized by the ILO TA Team under ADB/JFPR project wherein training apart from labour-based road rehabilitation was also imparted on the construction of bituminous surfacings such as Single/Double Surface Dressing, Otta Seal, Sand Seals etc. They felt that with increased funding levels in the road sector and higher traffic levels on the provincial roads, many roads would now qualify for upgrading to bitumen standards. Thus, there is going to be huge demand for such type of road construction.

Some contractors felt that LBAT option may not be appropriate for future works in Cambodia because of higher wage costs and labour shortages. They were of the opinion that the future training inputs for local contractors should focus on Labor-Based and Equipment Supported technology with special emphasis on the use of bituminous roads or other innovative surfacing materials. The future training programmes should provide extra focus on financial management, asset management, cost-benefit analysis and resource planning for the contractors.

High Interest Rates & Difficulties in Obtaining Bank Guarantees for Performance Bond

Some contractors indicated that they were required to pay interest rates as high as 20-25% in getting bank loans. Also, the banks in Cambodia asked them to deposit equivalent amount

before issuing any Performance Bond / Guarantees to the Clients. This resulted in blocking 10% of the bid amount with the bank during the project implementation period and further increased their cash flow problems.

Corruption & Poor Quality of Site Supervision

6 contractors expressed serious concern about the prevailing level of corruption which resulted in either poor quality of works or high unit rates to accommodate for such costs. 5 contractors also mentioned the lack of adequate supervision by the client's supervisory staff.

6. Sustainability Assessment

The government policy clearly promotes increased participation of the private sector to improve rural infrastructure service delivery. The MRD Strategic Plan for Rural Roads also favours the use of LBAT and small scale contractors for the rehabilitation and maintenance of the rural road network. Over the last decade, there has been a considerable increase in the capacity of MRD and its provincial departments in effective planning, design and monitoring of labour-based road works through small scale contractors. There has been a gradual phasing out of the Force Account Works and the execution of most of the public works is being shifted to private contractors.

Cambodia - Contract Size

The average contract size in the recent ADB/JFPR project was US\$ 205,000. This indicates that the contractors are no longer small scale contractors and they have the capacity and potential to undertake large works.

In the recent past, Cambodia has witnessed about 9 percent GDP growth and increase in nation wide economic activities including growth in agriculture. This has resulted in changed trends and opportunities in the labour market. Agriculture is the mainstay of Cambodia's economy. With improved agriculture extension services and better irrigation facilities the farmers in many provinces go for 2-3 rice crops in a year. This has resulted in a sharp increase in the demand for agriculture labour throughout the year.

Unlike a decade ago when unskilled labour supply at US\$1/day was available in abundance, nowadays it is difficult to recruit unskilled labour at US\$2/day. The labour supply situation is more acute in provinces neighbouring Thailand such as Pailin, Banteay Meanchey, Oddar Meanchey where most of the unskilled labour prefer to work across the border in Thailand at a daily wage rate of Thai Baht 100-120 (US\$ 3-4) per day.

Light Equipment – Plant Hire

Although, the ongoing ILO/ADB project had funding provision for providing light equipment to the trained contractors on hire-purchase basis, this funding remained unutilized as most of the contractors already had their own equipment and were not interested in availing this facility.

During the last five years there has been a big boom in construction activities in the tourism sector, garment industry, housing sector and other economic areas throughout the country. As the topography in the Mekong Delta is flat and flood prone, the construction activities entirely require huge amounts of earthworks in embankments for raising the plinth level of housing, factories and other business premises. Thus it is a pre-requisite for any economic activity in the country and has led to a creation of a huge private sector earthwork construction industry in Cambodia. These contractors mainly use heavy

earthmoving equipment such as bulldozers, motor graders, loaders, tippers and vibrating and sheep foot rollers. These earthwork contractors also actively participate in the construction

and maintenance of roads producing no shortage of heavy equipment within the private sector in the country.

These activities have promoted and created large-scale employment opportunities for the skilled and unskilled labour force in the building construction sector. People in rural areas prefer to work in the construction and agriculture sector due to receiving higher wages, light work and more opportunities for longer duration employment. It is becoming increasingly difficult to employ labour for the labour-based road rehabilitation and maintenance activities.

In view of above mentioned labour shortages, the local contractors are finding it increasingly difficult to practice LBAT and are resorting to a judicious mix of heavy equipment and labour in executing the road works. With increased allocation of funds, the road sector too is growing at a faster pace and generating more opportunities for contractors in road rehabilitation and routine maintenance activities. This labour-based and equipment supported trend is likely to continue in the future. However, labour-based routine maintenance activities through community contractors will continue unhampered.

7. Conclusions and Lessons Learned

Several ILO and other donor funded projects have proved the appropriateness of labour-based methods for road rehabilitation and routine maintenance activities.

Efficiency of rural infrastructure service delivery can be considerably improved through participation of private sector small scale contractors.

Cambodia has gradually transited through an early period since the 1990s when the country faced the challenge of mass scale employment generation for the rural unskilled masses to a current scenario when labour shortages are being felt in the road sector due to increased labour demand in other sectors. This would mean reduced participation of labour and increased deployment of equipment for certain road sector activities.

Development of private sector small scale contractors has witnessed continuous growth in terms of their assets and annual turnover. On account of the increase in wage rates and labour shortages, the contractors have improvised their work methods through use of labour-based and equipment supported methods for road rehabilitation. For routine maintenance works, labour-based methods through Community Contractors remains the preferred approach by the client Ministries.

Future training inputs for local contractors should focus on Labor-Based and Equipment Supported technology with special emphasis on the use of bituminous roads or other innovative surfacing materials. The training programmes should provide special focus on financial management, asset management, cost-benefit analysis and resource planning for the contractors.

The supervisory staff in the Client Ministries would also require continuous training to enhance their capacity and understanding about the upgrading of existing gravel roads to bituminous standards in a phased manner. So far, MRD only dealt with the rehabilitation and maintenance of gravel roads.

The standard bid documents should include a price escalation clause in order to compensate the contractors for any price increase in the cost of construction materials during the contract period.

Delays in payments to the contractors are critical for effective and timely execution of the contracts. It is high time that the MEF and the donor agencies streamline their funds replenishment procedures on a priority basis.

List of Contacts

1. H.E. Try Meng Under Secretary of State, MRD
2. H.E Chhin Kong Hean Director General, Public Works, MPWT
3. Mr.Chuop Setha Director, PDRD, Battambang
4. Mr.Sang Savat Director, DPWT, Banteay Meanchey
5. Mr.Din Kim Director, DPWT, Pailin
6. Mr.Khan Manner Director, DPWT, Battambang
7. Ms. Sor Monirath Director, PDRD, Pailin
8. Mr.Mao So Director, PDRD, Banteay Meanchey
9. Mr.Nida Ouk Senior Project Implementation Officer, CARM, ADB
10. Mr.Ky Vyrin Head, JRMU, ADB/JFPR TA 9048
11. Mr.San Bunthen Senior Engineer, JRMU, ADB/JFPR
12. Mr.Van Samsan Training Engineer, JRMU, ADB/JFPR
13. Mr.Lean Phirun Senior Engineer, JRMU, ADB/JFPR
14. Ms.Ham Syna Senior Technician, JRMU, ADB/JFPR

List of Contractors Interviewed is attached separately.

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3. Ministry of Rural Development – 5 Year Plan
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**EIIP – Capacity Building for Contracting
INSTITUTIONAL ASSESSMENT AND CONTRACTOR TRACING**

Who they were – What they are – What has been achieved

A study to assess the results of capacity development for contracting using emerging contractors applying labour-based approaches.

Terms of Reference for Country Survey in Cambodia

1. Background and Rationale

1.1 General

Most developing countries have gone through an economic, social and political reform process over the last two decades. One of the effects has been the move away from central government controlled and executed infrastructure development to more decentralised project control with local community and private sector involvement.

Local resource-based approaches, commonly expressed as 'labour-based', have in the past been successfully exercised through force account works in a number of countries. It was relatively easy to establish common standards, work methods and procedures through central government controlled projects. The socio-economic benefits were obvious and the financial comparison with equipment-based methods seemed to be favourable. The shift to more decentralised projects and private sector execution, however, has been a major challenge. In most cases there was no local capacity in place to manage infrastructure projects effectively. Local consultants and contractors who could take over from the force account units were not available. Adequate management, contracting and working procedures for locally managed projects and executed by small-scale and/or emerging consultants and contractors had to be developed and tested first.

Numerous governments together with development partners took up these challenges and introduced projects to develop a) local capacities with central and decentralised governments or project/contract management agencies, b) appropriate management approaches and procedures, and c) local small-scale contractors and to some degree consultants.

The ILO, together with a number of development partners, has been in the forefront in the development of appropriate approaches and systems as well as in the implementation of numerous contracting development projects. The first of its kind was the "Ghana Project" that started in 1986, where the ILO had the TA mandate and where over the years over 200 emerging small-scale contractors were trained and given a chance to enter the construction market. This pilot project was followed by many similar projects in Africa, Asia and Latin America.

Most of these projects would assist in the development of local capacities to manage decentralised projects through improved planning, design, contract documentation, supervision and management. They would generally facilitate an improvement to the enabling environment including market access for local industry, local governance and transparency, and hence ensure quality results and sustainable jobs. The other main activity in the projects was to create a cadre of capable domestic contractors and it is commonly understood that in most projects the contractor development process was

regarded as successful. However, it was also clear that most of them operated under “greenhouse conditions” as they were protected and nurtured by the projects. Whether or not the enabling environment had been developed such that these contractor firms survived beyond the project frame and whether they were able to sustain themselves in the open market and whether they still apply a local resource-based work approach is still a question to be answered.

Consequently, development partners together with the ILO should now be in a position to answer this question to assess the long-term sustainability of the approach with regards to local contracting capacity development.

Whether or not local contracting capacities have been achieved, as a measure of effective decentralisation, is not only a result of having developed capable local contractors. As described above, this depends mainly on other factors including the enabling environment. However, whether the originally trained contractors are still in operation and whether they were able to develop further is a) an important indicator for the private construction sector, b) an important indicator for the decentralisation and privatisation reform process, and c) important to know whether the private sector development investments are sustained.

The aim of the study is to provide representative figures on the issues of the development of the individual enterprises and employability of trained staff and clarify what have been the main reasons for successes and failures.

A further aim of the study is to provide inputs to the overall socio-economic impact of the approach, particularly with regards to poverty related issues.

1.2 Contracting Development in Cambodia

Initiatives to involve the local construction industry commenced on a trial basis in the ILO rural road reconstruction programme in the mid 1990s, at which time the first capacity assessments of the industry were carried out. With the start of the ADB financed Rural Infrastructure Improvement Programme, the private sector was given the lead role in both improvement works as well as road maintenance. Different categories of contractors were used for works with varying complexity and size. Local builders were utilised for the construction of culverts; local building firms were trained and used for bridge construction works; larger contractors were engaged for the supply of gravel; medium-sized contractors with some civil works experience were trained in labour-based road works technology and thereafter engaged in rural road construction. At the same time, petty contractors were mobilised in the communities along the roads to carry out routine road maintenance. The RIIP also carried out a substantial amount of building works for schools, government offices and markets, which was also carried out through the engagement of local contractors.

Training of the road works contractors was provided jointly by the RIIP and the ILO, consisting of initial classroom training combined with on-the-job training. After completing initial training the contractors were first awarded a trial contract before allowed to bid for larger contracts. Eventually these firms were awarded contracts consisting of all the types of works required for improving rural roads, including gravel supply and bridge and culvert works. Smaller firms engaged only for culvert works and maintenance were also provided development assistance mainly through on-the-job training and extensive technical support during their initial works contracts.

Extensive capacity development was at the same time provided to the government agency in charge of the rural infrastructure programme. The Ministry of Rural Development and its provincial units had very limited contracts management experience, so a complete contracts management system was developed and established within the Ministry. As part of these development efforts, procurement and tender regulations, cash-flow arrangements and payment procedures were agreed with the Ministry of Finance. Technical, administrative and finance staff at headquarters and in the provinces were

trained in the effective use of the newly developed systems and procedures, thereby establishing an effective contracts management capacity in MRD.

The systems and procedures were eventually adopted by other projects and rural development programmes. With some modifications, this contracts management is still in use today.

2. Study Objective

The objective of the study is to assess the approaches used in the capacity building projects for contracting in construction looking at small-scale labour-based contractors with regard to their further development and success beyond the project frame and in the open market.

Within this context, the objective of the study is to assess the approaches used in capacity building projects for contracting in construction looking at:

- the enabling environment in the sense that local institutions have developed adequate capacity to manage infrastructure development;
- small-scale labour-based contractors and consultants with regard to their further development and success beyond the project frame and in the open market;
- employability of trained staff.

Investigations should be made about the reasons for success or failure and what lessons could be learned for the future.

2. Study Organisation

The study is initiated and controlled by the EIIP branch of the ILO, Geneva. The EIIP has engaged an international expert for the overall study coordination and preparation of the final summary report. Consultants will carry out the survey in the particular countries under the guidance of the study coordinator. The roles of the study implementers are as follows:

The **Country Study Coordinator** is responsible for:

- Finalising the detailed work plan and methods for the country survey,
- Implementing the survey and supervise all activities at country level,
- Liaising with the ILO Regional Office on facilitating and overseeing the study works,
- Facilitating, coordinating and supervising the work of the country survey consultants,
- Providing guidance to the survey consultants in mobilising and carrying out the data collection and interviews,
- Facilitating access to government departments and agencies and their information,
- Carrying out all coordination activities that might be required between the various parties (ILO Geneva, ASIST-AP and other agencies),
- Monitoring the data collection process,
- Reviewing and collating all reports and information,
- Analysing the data and writing the final country report.

The **Country Survey Consultant(s)** is responsible for:

- Collecting the base-data through the defined survey methods,
 - Carrying out interviews
 - Collating the country data and preparing the country survey report.
- (→ For detailed tasks, refer to Section 3 below)

3. Tasks of the Country Survey Consultant

The country survey consultant will carry out the following tasks:

(i) Carry out the survey of local contractors mainly involved in rural road, bridge and culvert works and other rural infrastructure works where relevant. Tentative list of programmes include:

- o ILO Upstream Project
- o Rural Infrastructure Improvement Project
- o Northwest Rural Development Project
- o Mainstreaming labour-based road maintenance Project

(ii) Trace and review project documents to collate relevant data that are essential for the country survey,

(iii) Carry out interviews with: (specify below according to your country and agencies/persons involved)

- a. Project management staff (current and/or former; as appropriate),
- b. Government and or agency staff (current and/or former; as appropriate),
- c. Support agencies (current and/or former; as appropriate),
- d. Contractors (who are or were involved in the project),
- e. Contractors' association and/or national private construction sector development agency/authority (who are or were involved in the project),
- f. Any other as applicable

(iv) Summarise data from questionnaires and draw conclusions

(v) Assist in preparing the Draft Country Survey Report

Note: The attached **Country Study Guide** specifies the above tasks in detail and provides guidance on the study methodology to be applied.

4. Output of the Consultancy

The Country Survey Coordinator will prepare a **Country Survey Report, Volume I, Main Report**; including the following sections:

1. Table of Contents and Abbreviations
2. Executive Summary
3. Overall Sector Description
4. General Features of the Construction Industry
5. Government Contracts Management Capacity
6. Survey Results
7. Sustainability Assessment
8. Conclusions and Lessons Learned;

→ For more details about the content to be covered by the report, refer to the attached *Guideline for Country Survey*

The consultant shall also compile all filled questionnaires as per categories and submit them in a separate report volume; **Country Survey Report, Volume II, Annexes.**

Additional information to be contained in Volume II may include:

- a. List of interviewees and people met,
- b. Tools used to collect data/information (e.g. sample questionnaires),
- c. Any important support documents as may be required to clarify data/results,
- d. Data, e.g. in tabular format (if not already presented in the main report),
- e. Table listing the documents developed under the project, e.g. for contract management, designing and planning projects, training materials, etc.,

- f. List of reference material for carrying out the study,
- g. Any other important background information.

The report has to be submitted as **computer readable file** (Microsoft Word).

7. Qualification of the Survey Consultant

The Programme Country Survey Consultant needs the following qualifications:

- Degree in Civil Engineering with at least ten years practical work experience in rural infrastructure development programmes in developing countries.
- Extensive experience in contracting capacity development, with particular reference to local resource-based contract works for rural and/or urban infrastructure.
- Excellent skills in spoken and written English, with a proven record of project document and report preparation.

Related Documents:

- Guideline for Country Survey
- Checklist General Project Information
- Checklist for interviews with development support agency
- Questionnaire for interviews with implementing agency/client staff
- Checklist for Interview with Implementing Agency
- Checklist for Interview with Contractors' and/or Consultants' Association of Constructing Development Agency
- Questionnaire for interviews with contractors

Typical Profile of Contractor Training Course – ILO/ADB/JFPR Project – TA 9048

The training of contractors focused on theoretical class room training on various topics for labour-based road construction and maintenance for paved and unpaved roads. The training also comprised of in-field practical training regarding setting out, choice of good materials, materials testing, contracts management and clear understanding of the technical specifications for the road works.

For the participating Contractors, the training course took special care of the needs of the Director of the Construction Companies and their technical supervisory staff. The training course covered topics such as resource planning, financial planning, materials planning, equipment and human resource planning, cash flow requirements, analysis of rates for various items for road works, exposure to the bidding procedures, understanding of standard bidding documents, quality control guidelines and technical specifications and road works. For the Contractor's Road Supervisors, training focused on field construction aspects of the road rehabilitation and maintenance

The Contents of the Training Course are described as under:

Planning & Feasibility of Labour-Based Road Projects

Surveying & Setting Out Using Profile Board

- Profile Board Method
- Centre Line Method
- Setting of ditches, side slope, camber formation and side drain

Surveying & Setting Out Using Leveling Equipment

- Definitions
- The Leveling Equipment / Instrument
- Basic Operating Procedures
- Practical Training
 - Leveling Equipment practice on determining the differences in elevation
 - Recording of levels
 - Rise and Fall Method
 - Height of Collimation Method
- Applications of Leveling
 - Longitudinal Sections
 - Cross-Sections
 - Contouring

Labour-Based Road Construction Procedures

- Clearing
- Earth works
- Embankment Construction
- Drainage
- Gravelling, Compaction

Soil, Materials Testing, Bitumen and Dynamic Cone Penetrometer

- Sieve Analysis of Fine and Coarse Aggregates
- Determination of Moisture-Density Relationship of Soils
- Determination of California Bearing Ratio (CBR)
- Density of In-Situ soil by the Sand Replacement Cone method
- Method of sampling of aggregate.
- Bitumen Types and specifications;

Bituminous Road Construction

- General, volume of traffic,
- Embankment
- Sub base
- Base Course
- Shoulder
- Wearing Course
- Aggregate
- Bitumen binders
- Determining the average least dimension of chippings
- Determining the basic bitumen spray rate
- Types of Bituminous Surface Treatment including Surface Dressing;

- Site Administration , Planning, Reporting & Work Organisation

Contract Management

- Bid Document
 - Instructions to Bidders
 - Preparation of Bid
 - Submission of bids
 - Bid opening and evaluation
 - Post qualification and award of contract
 - Guarantees
 - Bid evaluation process

 - Contract Agreement.
 - Bid Data sheet and Contract data sheet
 - Bills of Quantities
 - Specifications of Road Works
 - Payment
 - Work plans
 - Filling of unit rate in the Bills of Quantities in the Bid Document



Photographs – Different Training Courses in the ADB/JFPR TA-9048 Project

Financial and Accounting

Financial Management Procedure

- Accounting System
- Operational Bank Account
- Bank Reconciliation
- Establishment Petty Cash Account
- Replenishment petty Cash Account
- Payment to Contractors
- Withdrawal application
- Financial Statement

Payment Certificate

- Certificate of Practical Completion of the Works
- Interim & Final Certificate of Completion of the Works
- Retention Money
- Cash flow

Bills of Quantities, Analyses of Rates and Cost Estimates

- The Bills of Quantities
- Calculation of the Quantities
- Tendering
- Planning & Resource Mobilisation
- Financing
- Execution
- Typical Examples of Unit Price Calculation for road works;
- Pricing the Quantities for Bidding / Tendering)
- Direct Project Cost
- Indirect Project Cost
- Risk allowance
- Company's administrative cost
- Profit

Routine Maintenance

- Labour-based routine maintenance through Community Contractors;
- Simplified Contract for routine maintenance based on monthly work-plans;
- Monitoring and supervision of community contractors through Commune Chiefs;

Periodic Maintenance;

Emergency Maintenance;

Type and causes of pavement defects in bituminous roads;

Methodology for repair of bituminous roads i.e Pot hole repairs, cracks repair, edge breaks and depressions repairs;



The following Training Manuals in English with Khmer translation were produced by the ADB/JFPR project and distributed to the trainees during the Training Course.

- Technical Manual on Labour-Based Road Construction and Maintenance For Paved and Unpaved Roads
- Technical Manual on Vertical Distance Measurements
- Technical Manual on Materials Testing for Road Construction.
- Technical Manual on Rate Analysis, Tendering and Specifications for Road Works.
- Technical Manual – Materials and Equipment for Bituminous Road Construction, November 2007
- Gravel Road Routine Maintenance Manual, November 2007



Construction of Trial Sections – ADB/JFPR Project TA-9048

ANNEX-3

INTERNATIONAL LABOUR-BASED ORGANIZATION



List of Contractor Studied by ILO

No.	Name of Contractor	Period of Training		Project	Phone No.	Remarks
		Start	End			
I- Province: Battambang						
1	Hong Chhay Heng	11/15/2000 (ILO)	1/20/2001(ILO)	ILO - NRDP/JFPR	012 950 421	JFPR-Jan-Mar&Nov-07
2	Hong Huot Ly	11/15/2000 (ILO)	1/20/2001(ILO)	ILO - NRDP/JFPR	012 927 020	JFPR-Jan-Mar&Nov-07
3	Ngoun Vibol	11/15/2000(ILO)	1/20/2001(ILO)	ILO		
4	Heng Chhat	2004	2008	NRDP - ADB/JFPR	012 881 696	JFPR-Jan-Mar&Nov-07
5	Leang Bou	2004	2008	NRDP - ADB/JFPR	012 977 710	JFPR-Jan-Mar&Nov-07
6	Tok Song Sour	2004	2008	NRDP - ADB/JFPR	012 886 566	JFPR-Jan-Mar&Nov-07
7	Hai Kry Peanich	2004	2008	NRDP	012 886 690	
8	T.S.K Construction	2004	2008	NRDP - ADB/JFPR	012 355 093	JFPR-Jan-Mar&Nov-07
9	Hai Kry Peanich	2004	2008	NRDP	012 886 690	
Sub Total Battambang =		9		Contractors		
II- Province: Banteay Meanchey						
1	Tan Thai Kheang	11/15/2000 (ILO)	1/20/2001(ILO)	ILO/NRDP/JFPR	012 833 251	JFPR-Jan-Mar&Nov-07
2	Sor Kan	11/15/2000(ILO)	1/20/2001(ILO)	ILO/NRDP	012 911 186	
3	Ana Kuth Khmer	11/15/2000(ILO)	1/20/2001(ILO)	ILO		
4	Plon Hong	2004	2008	NRDP	012 222 311	
5	Malay Trading	2004	2008	NRDP	012 411 594	
6	Vat Chhing	2004	2008	ILO/NRDP/JFPR	011 751 351	JFPR-Jan-Mar&Nov-07
7	Lay Sambath	2004	2008	NRDP	012 834 459	
8	CDW	2004	2008	NRDP	012 831 360	
9	TAN KIM ENG	2004	2008	NRDP/JFPR	012 660 877	JFPR-Jan-Mar&Nov-07
10	Phao Nguon	2004	2008	NRDP/JFPR	012 912 457	JFPR-Jan-Mar&Nov-07
11	Plong Mom	2008	2008	NRDP/JFPR	012 558 455	JFPR-Jan-Mar&Nov-07
12	Prak Sarak	2004	2008	NRDP - ADB/JFPR	012 362 121	JFPR-Jan-Mar&Nov-07
13	Sip Poun	2004	2008	NRDP - ADB/JFPR	092 794 959	JFPR-Jan-Mar&Nov-07
Sub Total Banteay Meanchey =		13		Contractors		
III- Province: Siem Reap						
1	Bin Boniboth	6/7/1999 (ILO)	8/6/1999 (ILO)	ILO/NRDP	012 882 313	
2	Noun Khri Sna	6/7/1999 (ILO)	8/6/1999 (ILO)	ILO	012 890 133	
3	Minth Savath	6/7/1999 (ILO)	8/6/1999 (ILO)	ILO/NRDP	092 823 278	
4	Chea Buth Thoan	6/7/1999 (ILO)	8/6/1999 (ILO)	ILO	092 546 561	
5	Teav Navuth	6/7/1999 (ILO)	8/6/1999 (ILO)	ILO/NRDP	012 788 032	
6	Bin Nath			NRDP	012 626 565	
7	CBT			NRDP	012 411 594	
8	KB Engineering			NRDP	012 332 017	
9	Ros Eoeung RII			NRDP	012 630 347	
Sub Total Siem Reap =		9		Contractors		
IV- Province: Kampong Cham						
1	Chao Ket	1999	2008	RIIP/NRDP		
2	Taing Cheng Oing	2004	2008	NRDP	012 887 882	
3	Huot Chhoeun	1998	2008	RIIP/NRDP	012 973 407	
Sub Total Kampong Cham =		3		Contractors		
IV- Province: Odor Meanchey						
1	Kim Soun			NRDP	011 720 037	
2	Plong Saokun			NRDP	012 636 657	
Sub Total Odor Meanchey =		2		Contractors		
V- Province: Pursat						
1	Thon Serey			NRDP	012 904 947	
2	Kuoy Vuoch			NRDP	012 400 010	
Sub Total Pursat =		2		Contractors		

VI- Province: Kampong Speu						
1	Pichnill			NRDP	012 854 702	
Sub Total Kampong Speu =		1	Contractor			
VII - Province: Kandal						
1	Lim Sarin	RIIP		RIIP/NRDP	012 862 377	
Sub Total Kandal =		1	Contractor			
VIII - Province: Kampong Chhnang						
1	Thy Loo			NRDP	012 839 793	
Sub Total Kampong Chhnang =		1	Contractor			
IX - Krong: Pailin						
1	Kim Douk				012 768 996	JFPR-Jan-Ma -07
2	Pheng Sophat				016 716 903	JFPR-Jan-Ma -07
Sub Total Krong Pailin =		2	Contractor			
X - City: Phnom Penh						
1	Y Van			NRDP	011 711 117	
2	You Narith	1998	2002	RIIP/NRDP	011 901 779	
3	ASIELAND			NRDP	012 973 388	
4	MTA			NRDP	012 606 050	
5	SBPH			NRDP	011 545 454	
6	The City	1998	2002	RIIP/NRDP	012 798 427	
7	Pich Ratana			NRDP	012 898 210	
8	MRP			NRDP	011 888 718	
9	Chou Pon			NRDP	012 939 292	
10	HPC			NRDP	012 779 977	
11	Setha	1998	2002	RIIP/NRDP	012 492 383	
12	Leng Setha			NRDP	012 857 388	
13	Meas Sovuthidy			RIIP/NRDP	012 414 440	
14	Mohapurum			NRDP	012 223 322	
15	Sophorn Ratanak			RIIP/NRDP	011 626 666	
16	Hun Vanuthy			NRDP	012 908 993	
17	Ly Seng Leang			NRDP	012 900 809	
18	PPR			NRDP	012 699 144	
19	Ung Simsia			NRDP	011 666 888	
20	Mori (Mony)			NRDP	011 668 888	JFPR-Nov-07
21	Bun Thorng			NRDP	012 666 366	
22	Angkor Wat			NRDP	023 991 345	
23	Tep Kosal	1998	2002	RIIP/NRDP	012 930 096	
24	Suong Bora			NRDP	012 853 998	
25	Meng Ngoun Ching			NRDP	012 908 699	
26	Dy Mand			NRDP	012 929 293	
27	PILV			NRDP	012 929 290	
28	Kim Mex	1998	2002	RIIP/NRDP	011 838 888	
29	KBH			NRDP	016 880 845	
30	CRD			NRDP	012 350 619	
31	Royal Mekong	1998	2002	RIIP/NRDP	012 818 733	
32	Khmer Heritage	1998		RIIP/NRDP	012 777747	
33	DCC (Khat Sat)			RIIP/NRDP	012 777 765	
34	Gold Vanlong			NRDP/JFPR	012 945 059	JFPR-Nov-07
35	Lim Heng Group			NRDP/JFPR	012 356 686	JFPR-Nov-07
Sub Total City Phnom Penh =		35	Contractors			
Total		78				

List of Contractors Study

No.	Name of the Company	Address and Contact Number	Remarks
1	Hong Chhay Construction CO., Ltd	#621, Group 14, Rumchek 4 Village, Rattanak Commune, Battambang District, Battambang Province Tel: (855) 012 950 421, Fax: (855) 053 952 316	1998
2	Hong Huot Ly CO., Ltd	# 422, group 20, group 20, Angchak village, Ochar Commune, Battambang District, Battambang Province Tel: 012 927 020, 053 952 139	1998
3	Heng Chhat Construction Company	#155, Group 16, Svay Chrum Village, Thmorkol District, Battambang Province Tel: 012 881 696	1999
4	Lok Sour Company	O'takam 3 Village, Tourl Ta Eak Commune, Battambang District, Battambang Province Tel: 012 389 184, 092 601 741	2004
5	Loung Chor	# 38, group 3, Thma Koul Village, Tapoung Commune, Thma Koul District, Battambang Province	2003
6	Bin Boniboth	# 140, group 6, Krous Village, Svay Dangcum Commune, Siem Reap District, Siem Reap Province Tel: 012 882 313	1999
7	Teav Navuth	Mondul I Village, Svay Dangcum Commune, Siem Reap District, Siem Reap Province Tel: 012 788 032	1999
8	Minh Savath	Mondul III Village, Slarkram Commune, Siem Reap District, Siem Reap Province Tel: 092 823 278	1999
9	Chea Bun Thoan (CBT)	Mondul I Village, Svay Dangcum Commune, Siem Reap District, Siem Reap Province Tel: 092 546 561	1999
10	Taing Thai Khieng Construction Co., Ltd	Sophy Village, Kampong Svay Commune, Serey Sophon District, Banteay Meanchey Province Tel: 012 833 251, 012 833 241	1998
11	Prak Sarak Company	Koll Rothan Village, Ou Ambil Commune, Serey Sophon District, Banteay Meanchey Province Tel: 012 712 571	2000
12	Phao Nguon Construction Co., LTD	Chamkatadok Village, Russeykrok, Commune, Mongkolborey District, Banteay Meanchey Province Tel: 012 912 457, 011 912 678, 012 448 424	2003
13	Chea Sang Construction Co., Ltd	# 31, group 35, Phnom Toch Village, Phnom Toch Commune, Mongkolborey District, Banteay Meanchey Province Tel: 012 833 251, 012 838 429	1993

No.	Name of Company	Address and Contact Number	Remarks
14	Royal Mekong Construction & Development Pte.Ltd.	# 81, Street 315, Sangkat Boeungkak II, Khan Tourlkork , Phnom Penh Tel: 012 818 733	1998
15	Sophorn Ratanak Construction Co., Ltd	# 111, Street 360, Sangkat Tourl Svay Prey I, Khan Chamkar Morn , Phnom Penh Tel: 012 818 733	1998
16	Tep Kosal Civil Co., Ltd	# 132, Street 134, , Sangkat Veal Vong Khan 7 Makara , Phnom Penh Tel: 012 930 096	1998
17	Khmer Heritage Construction Co., Ltd	# 677, Street 128, , Sangkat Tuek Laak I, Khan Tourl Kork , Phnom Penh Tel: 012 777 747	1998
18	D.C.C Co., Ltd	# 93, Street 105, Sangkat Boeung Keng Kang III, Khan Chamkar Morn , Phnom Penh Tel: 012 777 765	1998



**MAINSTREAMING LABOUR-BASED ROAD MAINTENANCE
TO THE NATIONAL ROAD NETWORK IN CAMBODIA TA-9048**

**Training Course - Labour-Based Road Construction And Maintenance Methods
15.01.2007 to 01 March 2007 in Battambang**

No.	Name	Position	Organization-Contractor	Province	Phone Number
1	Chan Sothy	Admin/Finance	M/S Heng Chat	Battambang	012 734 646
2	Heng Horn	Technician	M/S Heng Chat	Battambang	092 215 949
3	Chray Bun	Admin/Finance	M/S Tok Song Sour	Battambang	012 951 044
4	Em Savan	Technician	M/S Tok Song Sour	Battambang	092 816 499
5	Ung Kimly	Director	M/S Hong Huotly	Battambang	012 927 020
6	Loeup Bunyo	Technician	M/S Hong Huotly	Battambang	092 893 250
7	Tang Seng Bou	Director	M/S Leang Bou	Battambang	012 968 777
8	Koy Deth	Technician	M/S Leang Bou	Battambang	092 907 147
9	Chhay Sitha	Director	M/S Hong chhay Heng	Battambang	012 950 421
10	Yim Thyro	Technician	M/S Hong chhay Heng	Battambang	012 956 208
11	Meng Bunly	Admin/Finance	M/S T.S.K Construction	Battambang	012 355 093
12	Mean Sokunthea	Technician	M/S T.S.K Construction	Battambang	011 998 100
13	Plong Mom	Director	M/S Plong Mom	Banteay Meanchey	012 558 455
14	Math Poern	Technician	M/S Plong Mom	Banteay Meanchey	092 760 357
15	Tan Kim Huot	Deputy Director	M/S Tan Kim Eng	Banteay Meanchey	012 643 464
16	Youen Yat	Technician	M/S Tan Kim Eng	Banteay Meanchey	012 241 592
17	Vat Chhinh	Director	M/S Vath Chhinh	Banteay Meanchey	012 776 262
18	Choung Sereyvath	Technician	M/S Vath Chhinh	Banteay Meanchey	012 441 842
19	Poun Bun Chheun	Deputy Director	M/S Sip Poun	Banteay Meanchey	092 794 959
20	Sem Khemra	Technician	M/S Sip Poun	Banteay Meanchey	012 567 658
21	Phao Nguon	Director	M/S Phao Nguon	Banteay Meanchey	012 912 457
22	Ly Kakada	Technician	M/S Phao Nguon	Banteay Meanchey	012 448 424
23	Chao Vinh	Admin/Finance	M/S Taing Thai Kheang	Banteay Meanchey	012 833 251
24	Suon Sereyvuth	Technician	M/S Taing Thai Kheang	Banteay Meanchey	092 315 498
25	Prak Sarak	Director	M/S Prak Sarak	Banteay Meanchey	012 362 121
26	Sroeun Sokha	Technician	M/S Prak Sarak	Banteay Meanchey	012 739 898
27	Son Seut	Admin/Finance	M/S Kim Douk	Pailin	012 768 996
28	Kim Douk	Technician	M/S Kim Douk	Pailin	012 618 700
29	Van Chor	Admin/Finance	M/S Pheng Sokpath	Pailin	016 716 903
30	Pheng Sokpath	Technician	M/S Pheng Sokpath	Pailin	092 720 473
31	Suon Nat	Provincial Staff	DPWT	Pailin	016 380 771
32	Chhim Kim	Provincial Staff	DPWT	Pailin	016 350 294
33	Sok Phakdey	Provincial Staff	PDRD	Pailin	016 941 581
34	Sok An	Provincial Staff	DPWT	Banteay Meanchey	012 786 244
35	Orn Siphea	Provincial Staff	DPWT	Banteay Meanchey	012 686 196
36	Chheang Moeun	Provincial Staff	PDRD	Banteay Meanchey	012 380 955
37	Pin Sovann	Provincial Staff	DPWT	Battambang	092 914 323
38	Ham Sina	Provincial Staff	DPWT	Battambang	012 834 133
39	Sang Bunthen	Provincial Staff	DPWT	Battambang	012 413 681
40	Chhoeurn Roearth	Provincial Staff	DPWT	Battambang	012 221 024
41	Souk Vy	Provincial Staff	PDRD	Battambang	012 338 916

**MAINSTREAMING LABOR-BASED ROAD MAINTENANCE
TO THE NATIONAL ROADS NETWORK IN CAMBODIA TA-9048**

**List of Participants For Training Course Of Low Cost Bituminous Surfacing
For Engineer , Technician and Contrators
On 14-16 November 2007**

No	Name	Organization	Province
1	Soeng Sothy	Mony Contruction Construction Co., Ltd	Phnom Penh
2	Y Yong	Mony Contruction Construction Co., Ltd	Phnom Penh
3	Chea Chip	Gold Van Long Contruction Co., Ltd	Phnom Penh
4	Chea Chhorn Narun	Lap Technician Ung Sim Sia Co.Ltd	Phnom Penh
5	Toch Rattanak	Lim Heng Group Contruction Co., Ltd	Phnom Penh
6	Kim Sean	Engineer MRD	Phnom Penh
7	Dy Kiden	Engineer MRD/PRIP	Phnom Penh
8	Mean Ravuth	Engineer MRD	Phnom Penh
9	Him Socheat	Engineer MRD/TRIP IV	Phnom Penh
10	MeanTong	Engineer MRD/TRIP IV	Phnom Penh
11	Sok An	Technical staff DPWT	Banteay Meanchey
12	Orn Sipear	Technical JRMU	Banteay Meanchey
13	Chhang Moeurn	Technical staff PDRD	Banteay Meanchey
14	Ly Kakada	Phaov Nguon Contruction	Banteay Meanchey
15	Sroeun Sokha	Prak Sarak Contruction	Banteay Meanchey
16	Taing Samnang	Taing Thai Kheang Contruction	Banteay Meanchey
17	Suon Vuthea	Phaov Nguon Contruction Co., Ltd	Banteay Meanchey
18	Sok Phakdey	PDRD	Pailin
19	Soun Nat	Technician - JRMU	Pailin
20	Chhim Kim	DPWT	Pailin
21	Meng Dara	JRMU - Site Supervisor	Pailin
22	Chhay Sithea	Engineer Hong Chhay Heng Co.Ltd	Battambang
23	Chham Oeum	Technician Leang Bou Co.Ltd	Battambang
24	Chen Mony	Site Engineer Hong Chhay Heng Co.	Battambang
25	Chan Sothy	Technician Heng Chhat Co.Ltd	Battambang
26	Ly Cheng	Deputy Tok Song Sour Construction Co.Ltd	Battambang

**MAINSTREAMING LABOR-BASED ROAD MAINTENANCE
TO THE NATIONAL ROADS NETWORK IN CAMBODIA TA-9048**

**List of Participants For Training Course Routine Road Maintenance
For Technician , Commune , Supervisor and Community Contrators in Battambang
On 06 November 2007**

No	Name	Position	Province
1	Dol Sochet	Community Contractor	Banteay Meanchey
2	Soe Rin	Community Contractor	Banteay Meanchey
3	Hea It	Community Contractor	Banteay Meanchey
4	Ko Bo Chhok	Community Contractor	Banteay Meanchey
5	Thuok Ruos	Community Contractor	Banteay Meanchey
6	Phea Saret	Community Contractor	Banteay Meanchey
7	Sok Muth	Community Contractor	Banteay Meanchey
8	Nin So Thea	Community Contractor	Banteay Meanchey
9	Pann Moeung	Community Contractor	Banteay Meanchey
10	Uon Bun Loeung	Community Contractor	Banteay Meanchey
11	Chhaing Hoeut	Community Contractor	Banteay Meanchey
12	Meak Dom	Chief Commune, Kok Balaing	Banteay Meanchey
13	Khaw Warin	Chief Commune, Ou Prasat	Banteay Meanchey
14	Pok Lourn	Chief Commune, Talam	Banteay Meanchey
15	Duong Pek	Chief Commune, Srah Rang	Banteay Meanchey
16	Thong Lan	Chief Commune, Kut Tasoat	Banteay Meanchey
17	Rer Vin	Chief Commune, Takong	Banteay Meanchey
18	Hul Kim Thon	Chief Commune, Tuek Chor	Banteay Meanchey
19	Chea Sang	Chief Commune, Phnom Toch	Banteay Meanchey
20	Chhoeur Thai San	Chief Commune, Kok Romeat	Banteay Meanchey
21	Sok Voourt	Chief Commune, Ta Pho	Banteay Meanchey
22	Koev Sun	Chief Commune, Ou Bay Choan	Banteay Meanchey
23	Til Hev	Chief Commune, Samrong	Banteay Meanchey
24	Tum Meal	Chief Commune, Phneat	Banteay Meanchey

No	Name	Position	Province
25	Im Keuy	Chief Commune, Bosbov	Banteay Meanchey
26	Sok An	Technical staff DPWT	Banteay Meanchey
27	Chheang Moeun	Technical staff PDRD	Banteay Meanchey
28	Orn Siphea	Technician - JRMU	Banteay Meanchey
29	Ok Chanthoeun	Community Contractor	Krong Pailin
30	Chen Sok Kea	Community Contractor	Krong Pailin
31	Chuon Doeun	Community Contractor	Krong Pailin
32	Oum Phy	Community Contractor	Krong Pailin
33	Soung Ros	Community Contractor	Krong Pailin
34	Oun Vuthy	Chief Commune, Pailin	Krong Pailin
35	Tem Toeum	Chief Commune, Pailin	Krong Pailin
36	Sang Phirun	Chief Commune, Tuol Lvea	Krong Pailin
37	Prom Sarath	Chief Commune, Pailin	Krong Pailin
38	Chinh Bot	Chief Commune, Bo Yakha	Krong Pailin
39	Suon Nat	Technician - JRMU	Krong Pailin
40	Chhim Kim	Technical staff DPWT	Krong Pailin
41	Sok Phak Dey	Technical staff PDRD	Krong Pailin

**MAINSTREAMING LABOR-BASED ROAD MAINTENANCE
TO THE NATIONAL ROADS NETWORK IN CAMBODIA TA-9048**

**List of Participants For Training Course Routine Road Maintenance
For Technician , Commune , Supervisor and Community Contrators in Battambang
On 05 November 2007**

No	Name	Position	Province
1	Ho Da vy	Community Contractor	Battambang
2	Hok Sam At	Community Contractor	Battambang
3	Chan Pach	Community Contractor	Battambang
4	Seng Phal	Community Contractor	Battambang
5	Chek Song	Community Contractor	Battambang
6	Deab Torng	Community Contractor	Battambang
7	Dul The	Community Contractor	Battambang
8	Chheun An	Community Contractor	Battambang
9	Chhurm Chamreun	Community Contractor	Battambang
10	Sim Kong	Community Contractor	Battambang
11	Ko Kroeuy	Community Contractor	Battambang
12	Ath Cho euth	Community Contractor	Battambang
13	Hong Bunthen	Community Contractor	Battambang
14	Tep Kosal	Community Contractor	Battambang
15	Chhorng Ho	Community Contractor	Battambang
16	Keong Koun	Chief Commune, Lvea	Battambang
17	Sim Sam Un	Chief Commune, Bavel	Battambang
18	Heng Ly	Chief Commune, Chamkar Samrong	Battambang
19	Em Siroeun	Chief Commune, Kdol	Battambang
20	Lay Se	Chief Commune, Ta Poug	Battambang
21	You Soeirm	Chief Commune, ROUNG CHREY	Battambang
22	Pal Chom	Chief Commune, Kakosh	Battambang

No	Name	Position	Province
23	Mao Rorm	Chief Commune, Ta pon	Battambang
24	Pinh Phoeurt	Chief Commune, Reang Kesey	Battambang
25	San Ry	Chief Commune, Omal Chrey	Battambang
26	Pen Chhan	Chief Commune, Wat Kor	Battambang
27	Loch Chhon	Chief Commune, Ou Dam Bang 1	Battambang
28	Mol Roun	Chief Commune, Anlong Run	Battambang
29	Mao Seng	Chief Commune, Prek khporb	Battambang
30	Deng Yoeun	Chief Commune, ChheuTeal	Battambang
31	Saing Roeun	Chief Commune, Peam Aek	Battambang
32	Kong Lim	Chief Commune, Balang	Battambang
33	Chheun Reuth	Technical Staff of DPWT	Battambang
34	Seng Savuth	Technical Staff Officer PDRD	Battambang

List of Contractors Trained Under ILO Upstream Project

No.	Name of the Company	Address and Contact Number
1	Acknakot Khmer Organisation	Rong Machine Village, O'Ambil Commune, Serei Sophoan District, Bantean Meanchey Province. Tel: 054-958 877
2	Bin Boniboth	No. 140, Group 6, Krous Village, Svay Dangkum Commune, Siem Reap District, Siem Reap Province. Tel: 012 882 313
3	Bunnak Construction Co.,Ltd – BCC Co.	No. 3, St. 360, Sangkat Boeung Keng Kang I, Khan Chamcarmon, Phnom Penh. Tel: 015-838 073.
4	Bopha Angkor Remextran Construction Co., Ltd.	Phnom Penh. Tel: 012-888 813
5	Chao Ket Construction	No. 265, Sisowath Bolvd., Sangkat Phsar Kandal I, Khan Daun Penh, Phnom Penh. Tel: 012-851 815, 016 898 533.
6	Hong Chhay	House # 621, Group 14, Romchek 4, Ratnak Commune, Dattambang District, Battambang Province Tel: 012 853842
7	Hong Houthly	House # 422, Group 20, Ancharh Village, Ocha Commune, Battambang District. Battambang Tel: 012 927020, 054 952145
8	Khatt Sath Construction Co., Ltd	No. 93Eo, Street 105, Sangkat Boeung Keng Kang 3, Khan Chamcarmon, Phnom Penh, Cambodia. Tel: 012-842 254 Fax: 023-721 756
9	Meas Sovuthidy	No. 101, Street Sothearos, Sangkat Tonle Basak, Khan Chamcarmon. Tel: 015-837 699, 012 941 059
10	Minh Savath	Mondul III Village, Slarkram Commune, Siem Reap District, Siem Reap Province. Tel: 012 890 871
11	Nep Saman Construction Company.	#44Eo, St. 282, Sangkat Boeng Kang, Khan Chamcarmon, Phnom Penh. Tel: 011-871 563 & 011-872 136.

No.	Name of the Company	Address and Contact Number
12	Ngoun Vibol	House # 70, Group 24, 20 Usaphea Village, Svay Po, Battambang District, Battambang Province Tel: 012 914691,884758,884793
13	Nuon Kresna	No. 0030, Banteay Chas Village, Slarkram Commune, Siem Reap District, Siem Reap Province. Tel: 012-890 133
14	Outh Thy Construction and Road Co., Ltd	National Road 3, Phsar Tram Khnar, Chung Rok Commune, Kong Pisei District, Kampong Speu Province. Tel: 023-368 724, 012-835 036.
15	Reahou Engineering Co., Ltd.	No. 16Eo., Street 172, Sangkat Chey Chumneah, Khan Daun Penh, P. Penh. Tel: 012- 900 779.
16	Royal Mekong Construction & Development Pte. Ltd.	No. 81, Road 315, Boeung Kok 2, Toul Kok District, Phnom Penh. Tel: 012-818 733.
17	San Meng	No. 233Eo, Samdach Monereth, Sangkat Boeng Salang, Khan Toul Kork, Phnom Penh. Tel: 012-845 791, 012 876 712, 012 876 360.
18	Sor Kam	House # 99, Group 7, Banteay Neang Commune, Mongol Borey District., Banteay Meanchey Province Tel: 012 911 186
19	Tang Tai Kiang	House # 38, Group 20, Sophy Village, kampong S'vay Commune, Serey Sophan District, Banteay Meanchey Province Tel: 012 833241,833251
20	Tep Kosal Civil Co., Ltd	No. 132, Street 134, Sangkat Veal Vong, Khan 7 Makara, Phnom Penh. Tel: 012-887 763, 012-899 937, 012 930 096
21	Tiv Navuth	Mondul I Village, Svay Dangkum Commune, Siem Reap District, Siem Reap Province. Tel: 012 630 724
22	Veng Sreng	No. 311, Street 182, Khan Toul Kok, Phnom Penh. Tel: 016-820 364, 015 920 166, Fax: 023-366 254.

**International Labour Organisation
EIIP – Capacity Building for Contracting
Institutional Assessment and Contractor Tracing**

QUESTIONNAIRE FOR CONTRACTORS

Country:

Project Title(s):

Development Support Agency:

Implementation Agency:

Contractor's Name, Address and Contacts:

Note for the Contractor:

Use of data: This questionnaire is used to collect important data to find out the development progress of labour-based contracting in your country and the impact that it might have had to the sector. The collected data will be analysed and summarised in a general evaluation country report.

Confidentiality: Your information will not be used for any other purpose than for this study. Your company's name as well as your own name will not be revealed in with this interview.

Part 1; Company's Establishment and Capacity

1.1 Is your company registered with any Association? yes no
if yes, with which Association?

.....

1.2 When did you establish your company?

Date first registration:

1.3 What type of work does your company carry out?

road construction road maintenance building works irrigation works
 water works drainage works sanitation works

1.4 What work method(s) do you apply?

labour-based only machine-based only mixed, depending on the nature of works

1.5 If you are working using different methods, which method gives you the highest profit?

.....

1.6 Specify the number of staff and labour force:

That you had employed when you started your business					That you have employed currently				
Engineers / Technicians	Site Supervisor	Operators + Drivers	Skilled Labourers	Unskilled Labourers	Engineers / Technicians	Site Supervisor	Equipment Operators	Skilled Labourers	Unskilled Labourers

1.7 Specify the types and numbers of your equipment:

That you were owning when you started your business:	That you are owning now:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

1.8 In case you (also) hire equipment, please specify the typical equipment sets that you hire for road works:

1.
2.
3.
4.
5.
6.

1.9 Do you have your own company infrastructure, e.g. workshop, office, stores, etc.?

yes no

If yes, please specify:

Infrastructure when you started your business:	Infrastructure you are using now:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

Note: behind each item indicate in brackets (o) for owning and (h) for hiring

1.10 Please specify a breakdown of the most important handtools you own (type and number):

Handtools you owned when you started your business:	Handtools you are owning now:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.
11.	11.
12.	12.
13.	13.
14.	14.
15.	15.

1.11 How did you get your initial capital for investments, registration, hiring of staff, etc. when you started your business:

- had my own money (personal savings, from family or friends)
- got a loan from a local bank
- got a loan through a support project from a donor
- got a grant through a support project from a donor
- any other source, please specify

.....
If you got a loan, have you been able to pay it back until today?

- yes no

if no, please specify why not:

.....

1.12 What is your financial situation today:

- my company is financially independent and has no debts
- my company makes regular profits and I can make new investments when required
- my company still has a loan(s) → specify what kind
- my company currently does not make any profit → specify reason(s)

.....

Any other comments to your financial situation:

.....
.....
.....
.....

Part 2; Company's Performance

2.1 Specify the type of work that you typically carry out i) when your started your business, ii) today (e.g. road rehabilitation, periodic maintenance, routine maintenance, building, etc.):

Type of works carried out at start of business:	Type of works being carried out these days:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

2.2 What is your company's annual turnover:

a.) when your started your business:

b.) today:

2.3 List the major contracts your company has carried out in the last three years.

Contract Type (e.g. road rehabilitation, periodic maintenance etc.)	Client	Approximate Contract Sum \$
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

2.4 What do you consider are the biggest achievements your company has made since it started operations?

.....

.....

.....

Part 3; Company's Development

3.1 Were you given any form of out-side assistance to develop your company?

- yes, → please specify under 3.2
- no, I developed the company with my own resources and through my own achievements

3.2 Specify the type of assistance that you were given:

Type of Assistance	Details: kind, amount, conditions, by whom?
<input type="checkbox"/> Financial Loan	
<input type="checkbox"/> Equipment (Loan or Grant?)	
<input type="checkbox"/> Handtools (Loan or Grant?)	
<input type="checkbox"/> Training for you and your staff	→ move to Part 4 of this questionnaire for details
<input type="checkbox"/> trial contracts with fixed rates	
<input type="checkbox"/> any other; specify:	

3.3 What measures have you taken / are you taking to further develop the capacity of your company?

.....

.....

.....

.....

3.4 If you are a member of a contractor association, do you get any development support in terms of training, information and advisory services, arbitration support, etc.?

- yes no

if yes, please specify:

.....

.....

.....

.....

Part 4; Training

4.1 Did you and/or your company staff receive any form of training since the company exists?

yes no

if yes, continue with the following questions. If no, move to Part 5 of this questionnaire.

4.2 Specify the training you and your company's staff received (tick as appropriate):

Who of your company?	Type of training	Who trained? (Name of Institution / Consultant)
<input type="checkbox"/> Company Director <input type="checkbox"/> Managing Director	<input type="checkbox"/> theory basic technical subject <input type="checkbox"/> theory contract management <input type="checkbox"/> theory business management <input type="checkbox"/> practical training on site <input type="checkbox"/> trial contract, <input type="checkbox"/> on-the-job training <input type="checkbox"/> mentorship after trial contract <input type="checkbox"/> any other	
<input type="checkbox"/> Site Agent	<input type="checkbox"/> theory basic technical subject <input type="checkbox"/> theory contract management <input type="checkbox"/> theory business management <input type="checkbox"/> practical training on site <input type="checkbox"/> trial contract, <input type="checkbox"/> on-the-job training <input type="checkbox"/> mentorship after trial contract <input type="checkbox"/> any other	
<input type="checkbox"/> Site Supervisor	<input type="checkbox"/> theory basic technical subject <input type="checkbox"/> theory contract management <input type="checkbox"/> theory business management <input type="checkbox"/> practical training on site <input type="checkbox"/> trial contract, <input type="checkbox"/> on-the-job training <input type="checkbox"/> mentorship after trial contract <input type="checkbox"/> any other	
<input type="checkbox"/> any other staff?	

4.3 How was the training paid for?

it was all paid for by donor/government
→ Specify who?

it was paid for by donor/government with my contribution
→ Specify who and also percentage/amount of your own contribution?
.....
.....

all paid by myself/own company
→ Specify for who (your and your staff?) and approximate amount?
.....
.....

4.4 How would you rate the quality and usefulness of the training received to carry out your job today?

- very useful**, can apply in our daily work most of what I and my staff learned
- mostly useful**, can apply in our daily work some of what I and my staff learned
- not really useful**, can apply only little in our daily work of what I and my staff learned
- not at all useful**, cannot apply anything in our daily work of what I and my staff learned

If you rated "not really useful" or "not at all useful", can you please specify the reasons:

.....
.....
.....
.....

4.5 How many of your supervisors, who were originally trained together with you, are still working in your company today?

.....
.....

what are the reasons that they no longer work for your company?

.....
.....

4.6 Do you and your staff require any further training at this point in time?

yes no

if yes, please specify who requires training and what kind of training:

.....
.....

Part 5; Barriers for Better Performance and Growth

4.1 What do you consider were the main barriers (obstacles) for your company to perform and grow since you started business?
(tick as appropriate)

- | | |
|---|---|
| <input type="checkbox"/> bank finance too difficult to obtain | <input type="checkbox"/> contract conditions and specifications over complex and difficult to implement |
| <input type="checkbox"/> bank interest rates too high | <input type="checkbox"/> contract documents are biased against the contractor |
| <input type="checkbox"/> difficulty in obtaining performance bonds / guarantees and their costs | <input type="checkbox"/> contracts are awarded to companies who bid too low (lowest tender) |
| <input type="checkbox"/> long delays in receiving payments | <input type="checkbox"/> site supervision and quality control by client's representative is insufficient/poor |
| <input type="checkbox"/> no provision for price fluctuations | <input type="checkbox"/> communication between the client's representative and the contractor is poor |
| <input type="checkbox"/> lack of equipment for hire | <input type="checkbox"/> no work continuity |
| <input type="checkbox"/> tender procedures and contract award too cumbersome and biased | <input type="checkbox"/> delays and shortage of supply - materials |
| <input type="checkbox"/> corruption, fraud | |

4.2 Which of the obstacles that you have mentioned in the above list do you consider as the three major problems, starting with number 1 as the most prominent?

1.
2.
3.

4.3 Have you ever been involved in an arbitration/court case with your company?

yes no

if yes, please specify:

.....

.....

.....

Part 6; Prospects for the Future and Expected Challenges

5.1 How do you rate the future prospects for your company to acquire civil engineering or building contracts:

- very positive, as lots of good contract works can be expected
- positive, since there is much contract work on the way with realistic chances to get it
- fair, there seems to be some contract work but on a limited scale with some realistic chance to get it
- poor, there seems to be little work ahead and only remote chances to get it
- very poor, there is nearly no contract work opportunity and it is likely that the company will have to close down

5.2 If you have chosen either "very positive, positive or fair" from the list under 5.1, what do you rate is the percentage of work that your company may be awarded under the following sub-sectors:

Labour-based road construction / improvement works%
Labour-based road maintenance works%
Equipment based road works%
Any other civil engineering works%
Building works%

5.3 Do you think that you will be getting work not only in the rural but also urban areas in future:

yes no

if yes, please specify:

5.4 Do you think that further support to develop your company would be useful?

yes no

if yes, please specify what kind of support would be the most useful:

.....
.....
.....

5.5 What will be the three biggest challenges that your company will face in future?

1.

2.

3.

Part 7; Lessons Learnt

6.1 Describe briefly the most important lesson that you have learnt since you started your company:

.....

.....

.....

.....

.....

.....

6.2 What would you do different if you could start again your company:

.....

.....

.....

.....

.....

.....

