

**UNITED NATIONS CAPITAL DEVELOPMENT FUND
and
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

Final Evaluation Report

of

Rehabilitation and Improvement of Paklai - Kenthao Road Project

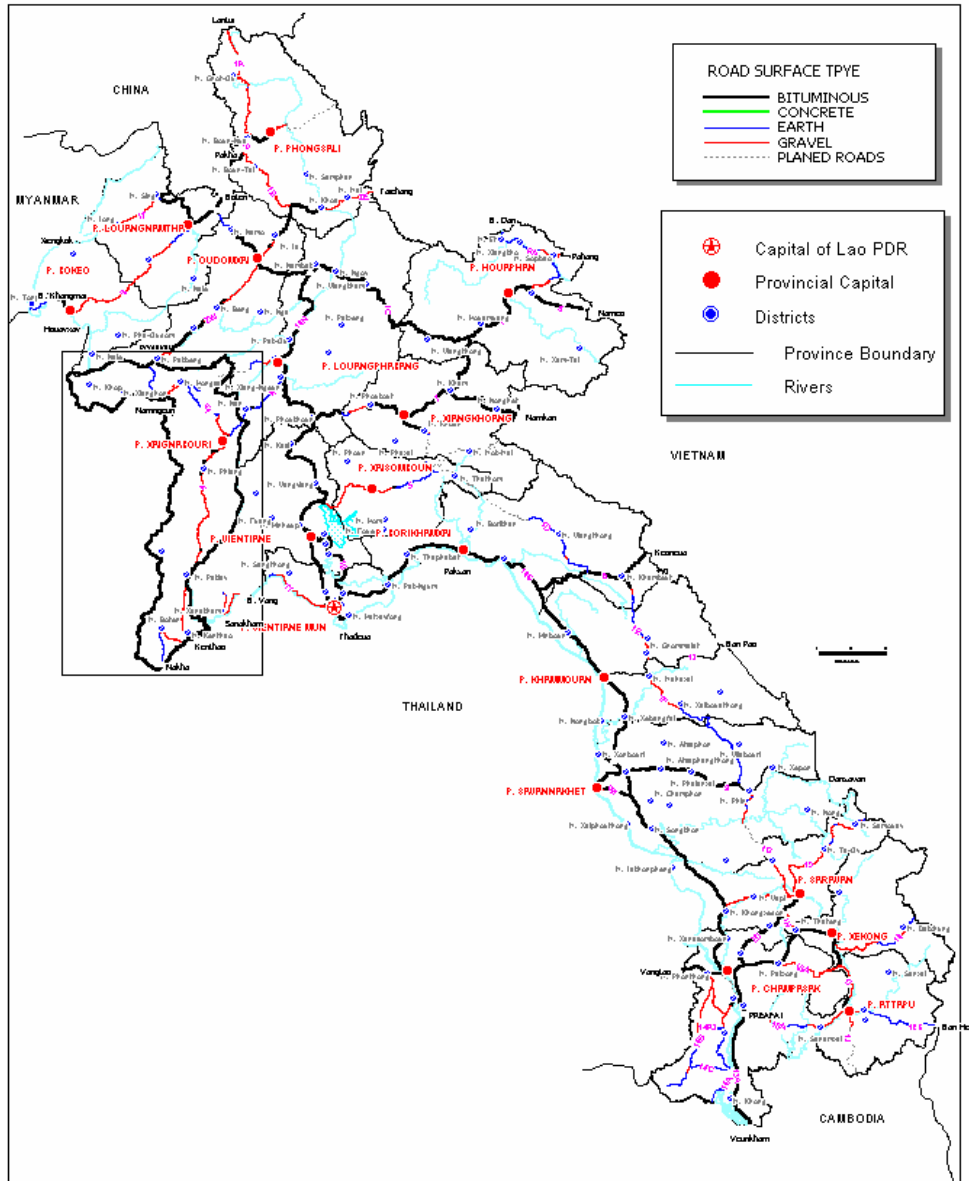
(LAO 98 / C 04)

June 2002

LIST OF ABBREVIATIONS USED

AMCD	Adapted Model Contract Document
ADB	Asian Development Bank
AMCD	Adapted Model Contract Document
DCTPC	Division of Communication, Transport, Posts and Construction
DLP	Defect Liability Period
DoR	Department of Roads
FIDIC	International Federation of Consulting Engineers
GDI	Gender-related Development Index
GOL	Government of Laos
HDI	Human Development Index
IDA	International Development Association
IRI	International Roughness Index
JV	Joint Venture
KPI	Key Performance Indicator
LCB	Local Competitive Bidding
LPDR	Lao Peoples' Democratic Republic
LRN	Local Road Network
MCTPC	Ministry of Communication, Transport, Posts and Construction
NA	Not Available
NBCA	National Bio-diversity Conservation Area
NDF	Nordic Development Fund
NEM	New Economic Mechanism
NEX	National Execution
NGO	Non-governmental Organisation
NPD	National Project Director
NR	National Route
NRN	National Road Network
NTS	National Transport Standards
PCC	Project Co-ordinating Consultant
PCU	Project Co-ordination Unit
RAD	Road Administration Division
RMP	Road Maintenance Programme
SNLCP	Societe Nationale de Construction Luang Prabang
STD	Sexually Transmitted Diseases
TOR	Terms of Reference
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
VAA	Village Administrative Authority
vpd	Vehicles Per Day

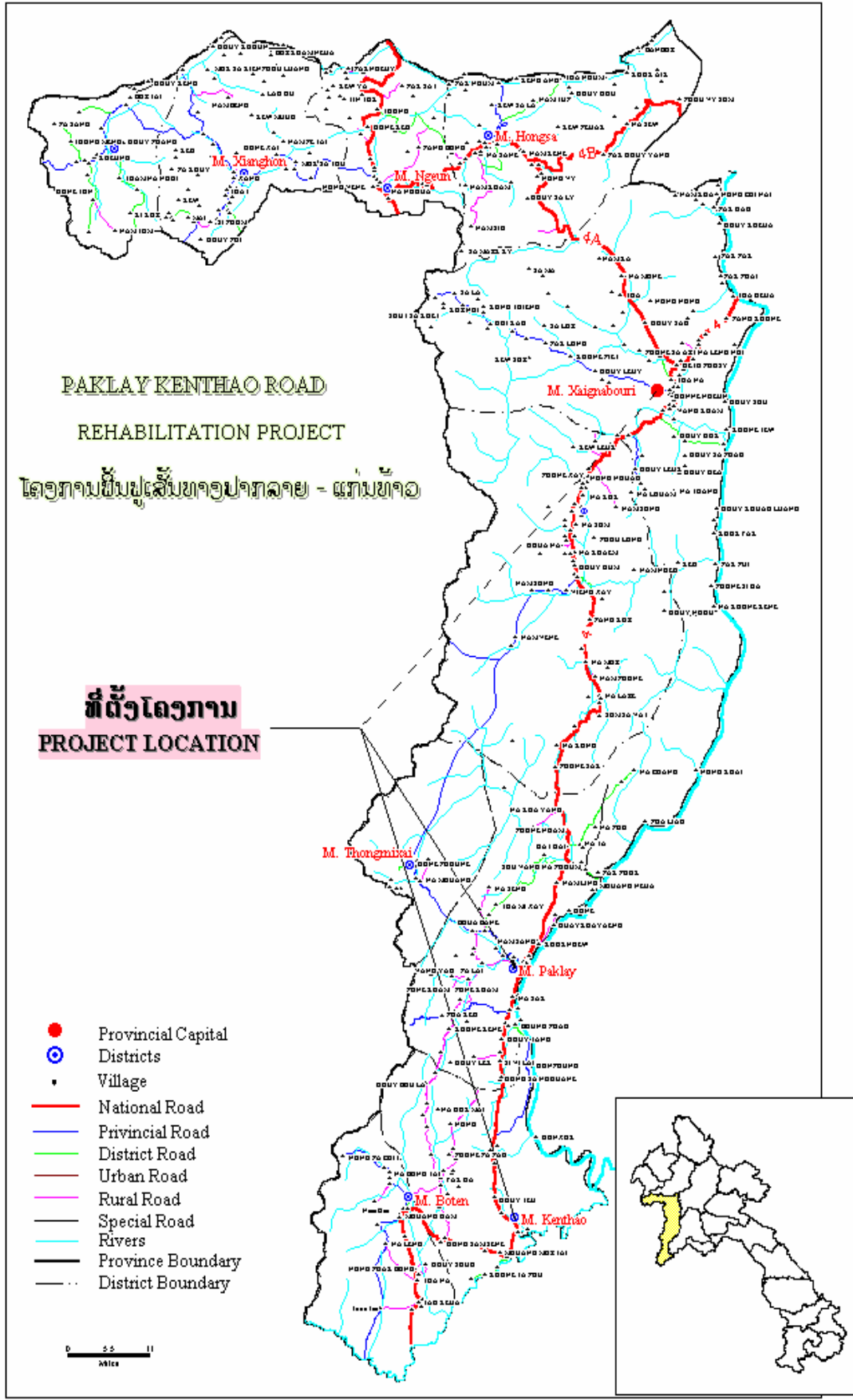
NATIONAL ROADS NETWORK



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DEPARTMENT OF ROADS
PLANNING AND TECHNICAL DIVISION

SYTABURI



Project Summary Data Sheet

United Nations Capital Development Fund

Country:	Lao Peoples' Democratic Republic
Project Number and Name:	LAO / 98 / CO4 (Rehabilitation and Improvement of the Paaklay to Kenthao Road)
Estimated Total Project Cost:	US\$ 4,609,954
Financing:	
UNCDF Grant:	US\$ 4, 171,954
Government Contribution:	US\$ 438, 000 (Kips 1,861,500,000 at 1998 exchange rate of US\$ 1 = 4,250 Kips)
Sector:	Transport and Communications
Sub-sector:	Road Infrastructure
Type of road:	56.66 km long 6.00 m wide gravel surfaced road
Government Executing Agency:	Ministry of Communications, Transport, Posts and Constructions (MCPTC), Department of Roads.
Estimated start date:	January 1998
Actual start date:	January 1999
Estimated completion date:	31 August 2000
Actual completion date:	24 April 2002 ¹ (including DLP of one year)
Evaluation Mission Period:	7 May to 30 May 2002

¹ Final Project Completion Report. Ministry of Communication, Transport, Posts and Construction; Department of Roads; Project Coordinating Unit.

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EXECUTIVE SUMMARY

Lao People's Democratic Republic is one of the least developed and land-locked countries with just over 5 million people and 238,000 sq km area in the Indo-china. The mighty regional river, the Mekong river, with its numerous tributaries runs through the entire length of the North-south elongated shape of the country. Laos is largely covered with forests and mountains and settlements are generally concentrated in fertile river valley plains. Lao PDR has a GDP per capita of US \$ 350 per annum to which only just over 50 % is contributed by agriculture whereas about four fifth of the total population lives in the rural areas predominantly practising subsistence farming. Low life expectancy, high infant mortality, poor health care facilities and inadequate education facilities indicate a state of generally poor physical quality of life particularly in rural areas. However, the natural conditions present in LPDR including the tropical climate, the water resources, fertile land, forest resources and the very strategic location of the country with respect to the region of Indo-Chinese peninsula offer remarkable potential and opportunities for rapid economic growth. Therefore, opening up of the rural areas and promoting economic and social development there is one of the priority development agenda for this country.

Surface transport, particularly through the road networks, makes the predominant component of the transport system in Laos. Out of some 26,000 km of road length only about 4,600 km is of all-weather status making a system of National Roads Network. Some 35% of the villages are still more than 6km away from any main road and 47% are inaccessible by vehicles during monsoon. Due to the development priority accorded to this sector during the last two decades the National Roads Networks has been rapidly growing and large number of interior tracks are being upgraded to all-weather rural/district road status. Paklay-Kenthao road is the last link of national road RN 4 (earlier RN 2A) to the Thai border, of which the section Luang Prabang - Sayaboury - Paklay were build under previous UNCDF grants. This project of rehabilitating the Paklay-Kenthao road came up in response to the GOL's request for assistance to complete the road between Luang Prabang and the Thai border. This project consisting of 57 km all-weather gravel road section is to facilitate communication between the isolated southern part of Sayaboury province and the rest of the country and to provide a "land-bridge" between the neighbouring countries of Thailand and China and Vietnam. Paklay and Kenthao are the southern districts of the Sayaboury province adjoining to the Thai border and on the western side of Mekong river.

The project was conceived with overall objectives of *improving the country's trunk system by creating international transit corridors and developing the corridor as a "land-bridge" between neighbours*. For this the economic and communication situation in Sayaboury province were to be improved by rehabilitating 57km Paklay-Kenthao road with keeping the potential adverse impacts on environment and public health at minimum. Improving the national capacity in road construction was also an objective of the project. The project was executed under UNDP's National Execution (NEX) approach following UNCDF procedures by the MCTPC through its Department of Roads and a Project Coordination Unit (PCU) headed by a National Project Director (Director General of the DoRs). Within this institutional framework the implementation arrangement was made by hiring an international consultant for engineering design and supervision and a contractor for production of necessary civil works.

From 7th May to 25th May 2002 UNCDF fielded a mission for undertaking final evaluation of the project Rehabilitation and Improvement of the Paklay-Kenthao Road (LAP/98/CO4). The broad goal of the evaluation mission has been to assess the overall project performance, the quality of the physical infrastructure and the socio-economic impacts of the project and learn lessons from the experience of the project. The evaluation mission studied the implementation process, outcomes and impacts with respect to the set objectives of the project. The mission endeavoured to appraise the relevance and appropriateness of the project formulation including institutional framework and the implementation arrangement. Overall performance of the project in delivering the outputs, technical quality of the road as one of the outputs, performance of the different actors in implementation process was assessed. Sustainability of the outcomes and the project-generated impacts also were assessed. Finally lessons learnt were extracted and recommendations made thereof.

It was found that there were some inadequacies in project formulation. The arrangement of roles made in the project formulation for different parties was not fully matching with the purpose and objectives of the project. The role of PCU (the project cell of the executing agency) was designed to be that of a facilitator, coordinator and monitor, whereas, logically, for the capacity development objectives of the project it should have had more roles in managing the project. The project formulation assumed a strategic and crucial role for the PCU, but did not make the same categorically clear in the TOR to them. There was also some inadequacy in making the project scope compatible with the project objectives by limiting the road end-point to Kenthao, which resulted into a small gap to link with the Thai border.

Implementation of the project was found to have proceeded smoothly, except for the delays at the earlier part of the civil works production. Different entities, UNCDF, PCU (MCTPC), PCC, and contractor, played their respective roles in successfully accomplishing the project. All the players in project implementation have performed well and satisfactorily in general, however the performance of the engineering design and supervision consultant (C. Lotti and Associati) was noticeably less than admirable. They performed within a narrow scope of activities which did not truly reflect the kind of role that was perceived for them in the project formulation. In some aspects of engineering design, supervision and reporting their performance was less than satisfactory. It is particularly disappointing to note that the cost of engineering services was more than 35% of the civil works costs¹.

It was also noted that the monitoring of the project from UNCDF side, particularly through the UNCDF HQ commissioned Technical Review Missions, was less effective than it would have been desirable.

There have been mainly three outcomes of the project: physical infrastructure (the rehabilitated road and bridge), capacity building on road construction and increased awareness on HIV AIDS.

The overall performance of the project and particularly in delivering the physical infrastructure has been quite **good** (in a scale of Poor - Fair - Good - Excellent). Repaired Sayaboury-Paklay road, rehabilitated Paklay-Kenthao road, a major bridge and two small bridges have attained the technical quality as envisaged in the project formulation. The project achievement was found to be slightly weak in aspects of national capacity building goals. Implementation of HIV AIDS awareness component was done through local NGO and it was found to be very effective.

The project is found to be very successful in attaining the desired impacts. There is a significant decrease in vehicle operating costs as reflected by the passenger fair and freight. The accessibility of the people, in terms of time taken to commute within the road corridor, has tremendously improved. There are ample indications of positive socio-economic changes taking place. For sustaining and enhancing these impacts it is recommended to rehabilitate the Kenthao – Nam Heuang road and strengthen the capability for road maintenance at district and provincial level.

¹ The consultant's fee was US \$ 768,000 for engineering design and supervision of civil works costing US \$ 2.2 million. In the range of 10 to 15 % of the civil works value is usually considered reasonable as the consultant's fee for design and supervision of such civil works projects.

A. INTRODUCTION AND BACKGROUND

A.1 The Evaluation Mission: Purpose and Methodology

Upon completion of implementing all the components, including the civil works component in particular, of the project "Rehabilitation and Improvement of the Paklay - Kenthao Road" (LAO / 98 / CO4) in April 2002 the present final evaluation mission was fielded to Laos from 7 to 25 May 2002. With an intention to learn from the experience, the purpose of the evaluation was to assess the overall performance of the project, quality of the outcomes and socio-economic and environmental impacts of the project. The mission was mandated to examine systematically and objectively the project from its inception stage through to implementation process, outcomes and impacts. The evaluation mission was to specifically assess:

- a) the overall performance of the project and likelihood of achieving the development objectives;
- b) the overall socio-economic and environmental impacts of the project in the two districts and sustainability of the desired impacts;
- c) the technical quality of the constructed road and bridge and their sustainability;
- d) the performance as well as capacity assessment of the engineering design and supervision consultant;
- e) the compliance with the requirement of the Project Document/Financial Agreements as well as the rules and regulations of UNDP/CDF;
- f) the strategy that the government needs to adopt in the future with the donors for such grant projects;
- g) the follow-up on the recommendations of the mid-term evaluation mission and recommendations of the technical review missions;

The evaluation mission was asked to comment on the initial project design, implementation arrangement and input provided by various players in project implementations with a view to extract lessons learnt. The mission was also to identify an exit strategy with reference to the sustenance of the road. The Terms of Reference for the evaluation mission is attached as Annex I.

The mission was comprised of Mission Team Leader Mr. Ganesh K. Ghimire, an external consultant rural infrastructure specialist; Member Mr. Lam Ngeunh, Laotian Socio-economic Specialist; and Member Mr. Laythong Phommavong, Project Monitoring and Inspection Unit, DoR/MCTPC. During its activities the mission was facilitated by Mr. Viengsamay Vongkhamsao, Programme Officer UNCDF and Mr. Sanoud Maniphonh, Project Manager on logistic support, co-ordination and travel to the field as well as in providing necessary information.

As the purpose of the evaluation was to learn from the project the mission adopted a study-approach, rather than a fact-finding or a problem-solving approach. In so doing the project was looked into from three different angles: a) the process - comprising of the institutional framework, implementation arrangement, performance of various players and activities undertaken; b) the outcomes - comprising of achievements with respect to the immediate objectives and c) the impacts - comprising of the attainment of the development objectives.

The Mission studied the entire project relevant documents and information including the Project Document, Project Progress Reports, Mid-term Review Reports, and Project Complement Reports by different entities involved in implementing the project. Series of

interactions with the key stakeholders; MCTPC / PCU / UNCDF Laos Office, provincial and district officials in Sayaboury, the peasants along the road corridor, and the business people at Paklay and Kenthao for example; were made. Objective information and subjective views of the different implementing partners were sought on many issues and questions. A visit to the project-located province (Sayaboury) was made for examining the road and assessing the socio-economic and environmental impacts. During this field work the local people, the ultimate beneficiary of the project, the local agencies and transport operators as well as business community were extensively consulted. Discussion with the officials from the provincial and district level offices, in particular DCTPC and District Roads Office were undertaken. On the basis of the initial impression of the findings a wrap-up meeting with senior officials of the DoR/MCTPC was conducted on 21 May 2002. Preliminary findings and observations were summarised into an Aide Memoire (Attached in the Appendix) and were presented to the UNDP Resident Representative in Lao PDR and the Vice-Minister, MCTPC on 21 - 22 May 2002 respectively.

This report is the documentation of the evaluation study and includes the project introduction with background and country development context (chapter A); discussion on the relevance and the design of the project (Chapter B); analysis of the implementation with performance of different party (Chapter C); evaluation of the results and outcomes (Chapter D); some other issues of concern are explained (Chapter E) and finally key findings in the form of recommendations and lessons learnt are listed (Chapter F).

A.2 Project Background

A.2.1 The country Lao PDR

The Lao People's Democratic Republic (LPDR), a land-locked country with two thirds of its 238,000 sq km area mountainous is designated as a "Least Developed Country" as it is one of the poorest countries in the world². Lao PDR is surrounded by Vietnam in the east, Cambodia in the south, Thailand and Myanmar in the west and China in the north. Located in the centre of a dynamic and prospering region of Indochina it has the potential to provide a strategic resource base and land link to all its neighbours. With the current annual growth rate of 2.8% the 5.2 million population is likely to double by 2025³. About 80% of the population live in rural areas. More than 80% of employed persons are dependent on subsistence agriculture for their survival and agriculture contributes only just over 50% to the GDP. As is characterised by low productivity due to low input, limited market orientation and domination of rice production, agriculture sector offers challenges and prospects both. Rising population density is putting unprecedented pressure on scarce agrarian land, which is just over 3.6% of the total area of the country.

About half the Lao PDR land used to be covered with rich tropical forest until a decade ago. The same is rapidly shrinking due to shifting cultivation, forest fires and unsound logging practices. Owing to the mighty river Mekong flowing through the entire length of the country and many other smaller rivers Laos has a very high hydropower potential.

The annual GDP per capita in the Lao PDR is US \$ 350 and in 1998 it was ranked 140th out of 170 countries in the UNDP Human Development Index (HDI) and 117th in the Gender-related Development Index (GDI). Though during the recent past there has been

² Common Country Assessment (CCA), The Lao People's Democratic Republic; United Nations, Vientiane, Lao PDR; December 2000

³ from CCA

considerable improvement in the quality of life of Lao population it is generally at a very low level. This is indicated by low life expectancy (59 years), high infant mortality (82.2 deaths per 1,000 live births), only 53% of the population having access to safe drinking water, generally poor healthcare facility and inadequate education facility (more than one fourth of the adult population is still illiterate).

Towards the end of 19th century Laos was a full-fledged part of the larger French colonial Indochina. A conflict of internal political forces emerged in Laos along with the anti-colonial resistance movement towards early 1940s, which was further compounded by the Second World War. It became a battleground for different global powers and a ground for civil war for many years even after independence from French in 1953. Laos was particularly badly affected by Vietnam War until mid-seventies. Finally, in 1975 Pathet Lao led revolution declared establishment of the Lao PDR and a system of governance was set up in line with state's aim to achieve "accelerated socialism". From the onset of early nineties the country has been rapidly opening up giving ways for liberal policies, widening of external relations and shifting towards market economy from centrally planned command economy. It is from around mid-nineties that state policies like New Economic Mechanism (NEM) were adopted and the state machinery began to function under a policy environment that was more liberal and open to outside world. Therefore, for many of the institutions within the current state machinery system this period can be regarded as the start point of their development. In this sense, the public-sector agencies are in the early stage of development. So is the case with private sector agencies, for the development of which the NEM thinking and the policies arising therefrom have provided the avenue for their growth. In overall institutional growth in LPDR is in quite infant stage. Administratively Lao PDR is divided into 17 provinces and 1 special zone at the status of a province. The provinces are further divided into districts. The state machinery is structured vertically along Districts to Provinces to Central. At the central level there are 13 line ministries responsible for different aspects and sectors. A Governor, appointed by the centre, heads provincial Government and under him/her are different sector departments. At the district level there is a District Governor, appointed by the centre, and sectoral divisions. At the village level a Village Administrative Authority (VAA) headed by a Village Headman, usually elected through a popular voting acts as the grass-roots local political-administrative entity with the district authority.

A.2.2 The Road Sector

Strategic location of Lao PDR offers the prospects of it capitalising on the regional growth and transform itself from "land-locked" to "land-linked" country particularly by developing international infrastructure networks, including transport, communications and information technology. In this surface transport links, road links in particular, are of vital importance.

The transport system in Lao PDR significantly depends on the network of roads. Road network are critical for national integration, which is highly valued by GOL; for improving accessibility of the rural communities to the livelihood assets e.g. goods, services and opportunities; and for tapping the potentials of economic growth. There is a total of about 26,000 km of road length in Lao PDR out of which only about 4,600 km is all-weather, including both black-topped and gravelled. About 35% of the villages are still more than 6km away from any main road and 47% are inaccessible by vehicle during monsoon (June - September). Road investments, since early eighties, have been concentrated on rehabilitation of the badly deteriorated roads due to the pre-1975 conflicts and extension of arterial road networks.

Inadequate maintenance of road network is a prominent problem in Lao PDR, and this is rapidly depreciating the US\$ 1 billion worth road network asset. Therefore, as maintenance of road is one of the main priorities of GOL, it could be noticed that policy

emphasis is placed in this area. A new Road Law was enacted in April 1999, which established operational framework as well as long-term goals for the road sector. In January 2001 the GOL established a Road Maintenance Fund to address the problem of insufficient road maintenance allocation. In June 2000 MCPTC, which is the responsible line agency of the state for development of roads prepared "Strategic Direction for the Development of the Road Sector" exhibiting the importance GOL places on developing and sustaining the road transport corridors.

A.2.3 The Project⁴

The project - *Rehabilitation and Improvement of the Paklay - Kenthao Road (LAO / 98 / CO4)* - is situated in Sayaboury (Xaignabouri) province in the north-western part of the Lao PDR. The province stretches from north to south for approximately 300 km and borders on the west and south with Thailand, to the east with the Mekong River, to north with Oudomxay and Bokeo, and to the northeast with Luang Prabang Provinces. Southern part of this province where the project is located is about 150km straight west of Vientiane, the capital city of Lao PDR. There are 10 districts in this province including the Municipality of Sayaboury, which is also the provincial capital. Paklay and Kenthao respectively are the southern most districts of the province and the road connects these two urban centres, which are surrounded with numerous villages. The centre of Kenthao is located at the bank of Nam Heuang river (Thai border). The area of the two districts combined is spread over the north-south strip along Mekong. Their strategic location, natural resources endowment and the topography suggest that they have very high potential for becoming an economic growth-belt.

Before 1975 Paklay was an active regional trade centre dominated by Chinese immigrant traders and teakwood, cattle and forest products were the main merchandise. Paklay, currently inhabited by total of 59,240 people in the district headquarter and 77 village settlements, is accessible from Vientiane through river transport (e. g. speed boat) and has the largest teak natural forest in the country. A road from Vientiane is under construction and the plans are that the same will be continued west to Thai border. Being located at the cross-roads of two transport corridors north-south Thai border to Luang Prabang and east-west Vientiane to Thai border Paklay has bright prospects in trade, industries and agricultural production.

Kenthao is home for total of 34,853 people living in the district headquarter and 53 village settlements spread over a large area of fertile land. The town has always been well known by its cotton and sweet tamarind production and the cross-border economic activities. Located right along the bank of Heuang river, the natural borderline with Thailand, Kenthao is well-placed for border trade. Before the road linking to Sayaboury was rehabilitated, a limited border trade with Thailand was the main economic activities as communication with Sayaboury provincial town, and with rest of the country was difficult. Maize is being grown increasingly as cash-crop. The naturally grown sweet tamarind from Kenthao is well appreciated in Vientiane market as well as in Thailand. The living standard of the Kenthao population is expected to dramatically change when the bridge over the Heuang river is built in the near future.

Paklay - Kenthao road is the last link of national road NR 4 (earlier 2A) running south from Louang Prabang to the Thai border. The section from XiangNguen (a point on RN 13 N south of Louang Prabang, also called 13N Junction) to Sayaboury (91km) were built during 1987-92 through UNDP/UNCDF grant. From Sayaboury to Paklay (151 km) were successively build under UNCDF grants too in 1989 - 96. The idea behind

⁴ Much of this section is drawn from the Project Document LAO/98/CO4; January 1998

undertaking these two sections of road was to develop a thoroughfare between Louang Prabang and Thai boarder and simultaneously to improve the accessibility of the people from Sayaboury province to Louang Prabang and rest of the country. The completed sections immediately showed remarkable flow of goods and people between Sayaboury province and Louang Prabang. Consequently, in May 1996, there was a request from GOL to UNDP/UNCDF for capital assistance in completing the road between Luang Prabang and the Thai border by rehabilitating the Paklay – Kenthao section. This would make up the last part of the long thoroughfare road between Luang Prabang and Thai boarder as well as would serve to connect the isolated population in two districts of Sayaboury province: Paklay and Kenthao.

During 1996-97 around the province was inhabited by some 292,000 people of 32 different ethnic groups. Overwhelming majority of them involved in agriculture for their survival. In the districts of Paklay and Kenthao together there lived about 93,000 people, more than 98% of them from Lao Lum ethnic group. About 7% of people between 15-45 age-group in Paklay were illiterate, most of them women. Simultaneously, in Kenthao 13% people of 15-45 age group were illiterate of which 60% were women. There was good stock of pre- high school education facilities in both the districts with one high school in each. Health service facility in the villages in those districts was of very low level with 9 and 8 dispensaries in Pakaly and Kenthao respectively. Each of the districts had one hospital each with one doctor per 730 inhabitants in Paklay and one to about 600 in Kenthao. Malaria, respiratory infections, diarrhoea and dengue fever were the most reported ailment. Being located adjacent to Thailand it was considered that the two districts were exposed to more-than-normal risks for spread of HIV AIDS. Transport conditions were not very good in these districts, particularly in the villages outside the district headquarters. As the road condition was very poor the Vehicle (motorised) holding rate was only 649 in Paklay and 840 in Kenthao including motorcycle, Tuk-Tuk, pick-ups, trucks and other light vehicles. The actual transport fare in 1997 was in the range of 30 - 35 Kips per passenger/km and freight was 230 - 450 per ton/km. The economy of Paklai and Kenthao had been predominantly agrarian. Subsistence farming was the way of life, though there was some cash crop production particularly from Kenthao due perhaps to its proximity with Thai boarder. Rice, Maize, Sesame, Peanuts, Cotton, Posa, Tamarind, Red Beans, and Garlic were the main cash crops produced in the two districts. Livestock raising, particularly buffalo, pigs, cattle, and poultry, used to be another source of income for the local population was observed. Total of about 180 domesticated elephants were recorded which used to be mainly used for logging. As the area was having large patches of natural forest logging used to be one of the prominent activities of economic significance there. GOL and Provincial authorities had been constantly making efforts to check the ongoing improper logging practice and promote forest management, community as well as private forestry. At the time of the P-K Road Rehabilitation Project formulation trade and industry in the area had been very limited to few cottage type local skill-based productions for the local market and local consumption commodity enterprises⁵.

It is in this socio-economic setting and people with difficult and unreliable access conditions that the project to rehabilitate the Paklay - Kenthao Road was considered. The lessons learnt from the experience of the previous sections (Luang Prabang - Sayaboury - Paklay) were duly taken into consideration in formulating this project. An evaluation study completed in July 1997 for Luang Prabang - Sayaboury - Paklay section pointed out main lessons learnt as: i) due to lack of qualified staff with the SNLCP (the public owned civil works contractor) the institutional capacities for undertaking civil works could not be achieved; ii) the engineering design prepared by MCPTC presented serious

⁵ From the Project Document LAO / 98 / C O 4

shortcomings; iii) there was remarkable lack of technical supervision to ensure quality of the civil works.

The rationale and design

The GOL gave, and is still giving, high priority in restoring the vital sections of the transport network, which was destroyed due to the war and lack of regular maintenance and upgrading. The Fourth Five Year Plan (1996-2000) outlined the policy emphasis as to facilitate trade and transport, to promote national integration by linking provincial capitals, to achieve “access to the sea” and to improve (inter-) linkages with Thailand, Vietnam and China by developing transit corridors. The P-K Road being part of the north-south corridor, improving and rehabilitating it very well supported the government’s strategy. The earlier sections from Louang Prabang to Paklay also was rehabilitated through UNCDF grant and evaluation of the same showed significant positive impacts on income, trade, communication, health, education and generally on the quality of peoples’ lives. Studies⁶ of areas covered by P-K Road indicated that rehabilitation of this road would have enormous positive impacts on the socio-economy of the area. Study of the environmental aspects did not foresee any major environmental threat due to the road as the road already existed.

Being the last part of Louang Prabang to Thai boarder National Road (RN 2A) the basic specifications of the design were taken in accordance with NTS (National Transport Standards) applicable for highways. The road was planned to be 7 m wide with permanent gravelled surface. The side drains of 1.5 width and 0.5 m depth were envisaged. A 8% of maximum longitudinal gradient was recommended. For cross drainage box culverts (pre-cast concrete pipes of 0.6m to 1.5m diameter) and a small reinforced concrete bridge of about 10m span was recommended. For Namkai river the old bridge was to be replaced by pre-cast, pre-stressed concrete beam decked bridge. Mechanised approach to construction was preferred over labour-based approach due to the risk of labour unavailability. Construction materials, especially coarse aggregate and sand, were to be used from abundantly available local sources including Mekong River. The middle 31km section of the road passing along the Mekong was shifted to rather a shorter (24km) new alignment where there existed remnant of an old track. On the basis of these recommended design specifications the PCC were to undertake the topographical survey and develop the detailed design of the road.

Project objectives, targets and activities planned

The development objective of the project was set as *to improving the country’s trunk system; to create international transit corridors to diversify the country’s access to the sea; and to promote the role (of the project area) as a land-bridge between neighbours.* For achieving this overarching objective the project set some immediate objectives, and consequently activities were planned to meet them. The immediate objectives set by the project have been: a) *to improve economic and communication situation in Sayaboury province (in Paklay and Kenthao districts in particular).* For measuring the achievement of these goals some targets were set such as decreased vehicle operation cost by 40%, improved accessibility of the people (measured by travel time) and rise in local enterprises markets and exports. b) *to improve the national capacity (in public and private sectors both) in road construction.* Targets for this objective was an increased capacity building of institutions like MCTPC/DoR and that of the private sector civil works contractors. c) *to minimise potential adverse impacts on public health and environment due to the road.* For this the targets had been rise of local awareness in public health

⁶ Feasibility Study and Base-line Study in particular

concerns including HIV AIDS and positive trend in forest management and other environmental parameters. Various activities were identified for reaching the above targets and attaining the project goals and, in fact, these planned activities constituted the project.

Description of the project

The project was conceived as composed of various activities to be undertaken in a particular implementation arrangement with specific roles and responsibilities of different actors.

- a) *Provision of engineering and supervision service* for the civil works was the first activity planned to begin by hiring consulting services from international companies. Selection and contracting out an engineering firm experienced in south-east Asia to work as the Project Co-ordinating Consultant (PCC) was to be undertaken by UNCDF/UNDP on behalf of the PCU. Then the PCC was to take lead in starting to implement the project by undertaking survey and detailed design, cost estimates and assisting the PCU in preparing bidding documents.
- b) *P-K Road Rehabilitation civil works* was the main activity to be undertaken through a local civil works contractor. This line of activity comprised of different sub-activities. The PCC was to be responsible for preparing Engineering Survey, Detailed Design and Cost Estimates. The PCC were to prepare Tender Documents in accordance with the FIDIC format (General Conditions of Contract) as adapted for the similar works in Laos by the ADB (Model Contract Document / ADB TA No. 2893-LAO). Acting for the PCU the PCC was to pre-qualify contractors according to the national pre-qualification procedure. Then the PCU with PCC's assistance was to undertake the bidding of the civil works amongst the pre-qualified contractors. The winner contractor was to be allowed for various options including use of the UNCDF-mechanised brigade and subletting the bridgework to another contractor. Finally, the PCU was to sign the contract agreement with the contractor and provide authority to start the work. The day-to-day supervision of the civil work progress was a responsibility of the PCC.
- c) *Raising awareness on public health including HIV AIDS* was thought to be one of the needs of the project and was, thus, included in the project document. Links were to be established with the UNAIDS to determine appropriate type of action. For identifying and developing programme on raising awareness an NGO was to be sub-contracted.
- d) *National Capacity Building* for road construction was one of the objectives of the project. For this on-the-job training through PCC and participation to formal training opportunities were the specific activities identified at the time when the project was conceived. Some budgetary allocation was made for training and for support to NPD and PM.
- e) *The UNCDF-mechanised brigade was to be overhauled* under this project as a side-activity. This brigade was set up during Luang Prabang - Sayaboury - Paklay road rehabilitation involving SNCLP. By the time P-K Road Rehabilitation was under formulation the brigade needed overhauling and spare parts were to be made available. The overhauling was to be done by hiring a Master Mechanic.
- f) *The Sayaboury - Paklay section* of the road needed some spot improvement and maintenance for bringing it up to a satisfactory and sustainable level of transport capacity. This activity was also included as a side-activity to this project. This was to be done by SNCLP by using mechanised brigade capacity after overhauling. The assessment of the work requirement and supervision was to be undertaken by PCU and Project Manager and their provincial staff assisted by an individual engineer hired by UNDP.

Project cost and financing plan

Total cost of the project was estimated to be US\$ 4,609,954 out of which about 10% was to come from the government and the rest was to be met through UNCDF grant. This estimated budget was broken down into different cost items and into three years - 1998, 1999 and 2000 - in the financial plan. The following table gives the summary of financial plan.

Table: Financial Plan (Amount in US \$)

Cost item	1998	1999	2000	Total
P-K Road Civil works including PCC cost, HIV AIDS prevention and contingencies	1,082,000	2,070,000	837,013	3,989,013
Sayaboury - Paklay road repair	231,802			231,802
Mechanised brigade overhaul	46,000			46,000
Operation support including training, duty travel, and M&E	53,200	34,400	52,900	140,500
Total project component cost	1,413,002	2,104,400	889,913	4,407,315
NEX (UNDP) support	33,142	49,410	17,268	99,819
UNCDF Project support	33,892	50,220	18,706	102,820
Total Project Cost	1,480,036	2,204,030	925,889	4,609,954

Institutional framework for implementation

The project was conceived as one to be implemented following the National Execution (NEX), UNDP Laos approach following UNCDF procedures. According to this a Project Co-ordination Unit (PCU) was to be formed by the executing agency - MCTPC - of the GOL. The PCU, with a Project Manager and supporting staff, was to be headed by a National Project Director (NPD) and would be the project authority. The PCC hired by UNCDF on behalf of PCU as per the NEX procedures was to assist the PCU in managing the project and be responsible to the project authority for technical and managerial matters. Hiring of contractor's service for civil works was to be done by PCU in assistance of the PCC. The UNDP/UNCDF was to keep control over financial matters and make payments of the contractor's bills as certified by PCC and approved by PCU. They were also to be responsible for monitoring the project implementation.

Plan of operations and effective dates

When project was conceived the effective start date for project implementation was planned to be January 1998 with planned date for PCC hiring by April 10, 1998. As per the plan of operation the total project period was to be of two years and nine months to come to an end by September 2000. By 30 July 1998 the survey, design and cost estimates were to be completed by the PCC and tendering process was to begin. By October 13, 1998 the contract was to be awarded and civil works was to begin. It was planned that the repairs of Sayaboury - Paklay section was to be done during February - July 1998. It was assumed that with the completion of civil works for Paklay-Kenthao road the project implementation would come to an end.

Reporting, monitoring and evaluation

The project document proposed two lines of reporting. a) The PCU was to submit to UNCDF through UNDP Laos Monthly progress reports, Quarterly reports, Annual reports

and finally a Project Completion report. b) The PCC was to submit to UNDP Laos and PCU Inception report, Progress reports for phase I (completion of Sayaboury-Paklay road repair and maintenance) and phase II (Paklay-Kenthao road design), Bid Evaluation report, Monthly reports, Quarterly reports, Annual reports, Special reports concerning UNCDF Mechanised brigade, and finally Project Completion report. These reports were to be the main means of monitoring and evaluating the project implementation. For the purpose of socio-economic impact monitoring it was proposed by the project document to hire a local consultancy or a research institute. And the impacts were to be measured by using a set of key performance indicators (KPIs) against the socio-economic base line established by a survey done in October 1997. The project document also proposed a system of project evaluation through a mid-term technical review mission (nine months from the start of the construction), a final evaluation (after a year of civil works completion) and a ex-post evaluation (three years after the project completion).

B. PROJECT DESIGN AND RELEVANCE

The Design of the Project

Following the request from GOL in May 1996 and UNCDF's involvement in the previous sections of the Loung Prabang – Thai Border this project was positively considered by UNCDF. Background studies were undertaken and project for rehabilitating Paklay – Kenthao road was formulated during second half of 1996 to end of 1997. UNCDF played the leading role in formulating this project.

Technology choice

The poor condition of transport connection to Paklay and Kenthao was taken as the problem that the project would solve. For solving this problem the Paklay-Kenthao road was to be improved geometrically and rehabilitated with a 7m wide, all-weather gravel road of 63 km length. For approaching Paklay-Kenthao section it was also necessary to repair Sayaboury - Paklay (152 km) section. Rehabilitation of this section was completed in December 1996 through UNCDF grant by MCTPC by engaging the SNCLP (Societe' Nationale de Construction des Routes No 1 de Luang Prabang) - a state owned enterprise in road civil works. Therefore, a provision was made in the project formulation that repair of Sayaboury – Paklay was to be undertaken through SNCLP. As the SNCLP just have had experience of working in this section and the work to be done was that of repairs of their earlier work justified to have taken this approach. However, the SNCLP in its own lacked mechanical equipment and capital, therefore, UNCDF-Mechanise brigade was overhauled for using the same in repairing Sayaboury-Paklay section. The SNCLP's role was somewhat limited in managing the equipment operators and labours, whereas the overall administration of the civil work was managed by MCTPC/DCTPC. For Paklay-Kenthao section the work was more challenging and therefore an approach of local competitive bidding (LCB) was adopted instead of directly involving SNCLP. For the rather low population density in the area it was thought that adopting a fully labour-based approach would not be appropriate, therefore the approach taken was that of an equipment-based where the application of labour was to support the machines and equipment. The evaluation mission found during its fieldwork that there is not, indeed, any abundance of local labour supply. There is also a seasonal variation in the whatever small labour market exists in the Paklay-Kenthao corridor. During the dry season flow of labour rises slightly, whereas during the months nearing monsoon the same shrinks. Such fluctuation would create a situation of uncertainties if one were to adopt fully labour-based approach. Hence it is viewed that the approach was appropriate and effective as it produced satisfactory results in civil works production.

The overall development objective of the project was of improving the country's trunk road system and creating a "land bridge" between neighbouring countries not one of poverty alleviation. Had poverty alleviation been the overall objective of the project then the technology choice of whether labour-based or capital-intensive approach would have had substantial consequences. Therefore, it is viewed that the technology choice did not have any consequence on the overall development objective of the project.

Objectives and outputs

The development objectives of the project was set as *to improve the country's trunk system; to create international transit corridors to diversify the country's access to the sea; and to promote the role (of the project area) as a land-bridge between neighbours.*

Three immediate objectives for achieving this overarching objective were planned with specific outputs and activities. The immediate objectives of the project have been: a) *to improve economic and communication situation in Sayaboury province* (in Paklay and Kenthao districts in particular); b) to improve the national capacity (in public and private sectors both) in road construction; c) *to minimise potential adverse impacts on public health and environment due to the road*. The set objectives are well defined with clear identification of the outputs. Targets for indicators to measure the achievement of these objectives were also adequately identified in the project design. Objectives and outputs are reflective of the local needs and reality and they are achievable, and thus, are realistic. Some of the outputs like rehabilitation of Paklay – Kenthao road directly contributes to meeting the project objectives, whereas some outputs like repair of Sayaboury-Paklay section and overhauling of mechanised brigade seem to be contributing only indirectly to meet the project objectives.

For measuring the achievement of these objectives some quantifiable indicators also were identified such as decreased vehicle operation cost by 40%, rise in local enterprises markets and exports for the first immediate objective. With regard to other objectives like capacity-building there were no measurable indicators identify. Similarly, for minimising potential impact on public health and environment the project formulation did identify any directly measurable indicator that would verify the achievement of the objective.

Beneficiaries

The project formulation identified the people of Sayaboury province particularly that of Paklay and Kenthao districts as the principle beneficiaries of the project. It was hoped that by attainment of the objectives of the project the transport and access situation in the Paklay – Kenthao corridor would significantly improve facilitating growth of cash-crops, industries, trade and improvement in social services like health and education. This would directly benefit the people in the two districts. The Lao government was identified as the main beneficiary of the capacity-building component of the project. The private sector civil works contractors also were thought to benefit from the project as there would be increased business opportunities for them as a result of the project.

Implementation arrangement

Planned sequence of project activities in the project design were well supported by the implementation arrangement of hiring a consultant to work as PCC, contractor for delivery of civil works and sub-contracting the HIV AIDS awareness component to an NGO. Financial resources allocated and made available for different activities and sub-activities was adequate as per the requirement. Scarcity or inadequacy of funds for one or the other activity was not encountered by the project during implementation. Disbursement of the allocated funds was done in accordance with the UNDP Laos NEX approach following UNCDF procedures. This procedure has been time tested in different projects funded by UNDP and it served purpose for this project as well. As envisaged in the project design the accountability of the implementation activity and disbursement of funds for it rested partially on PCU and then ultimately on UNCDF. This was necessary as the PCU represented government executing agency and UNCDF provided the grant for the project. The main provisions made by the project design for the logistical arrangement were a vehicle for the Project Manager, an office and three supporting staff - an accountant, a secretary and a driver to be financed by the project. This provision is viewed to be sufficient as the role of the PCU was designed to be that of providing administrative facilitation and co-ordination of project implementation process.

Relevance of the project design

In the prevailing context of development in Laos the project design, as it was conceived with the given objectives, outputs and activities, is assessed to be relevant in overall. Assessing retrospectively, however, the design of the project in certain specific aspects could have been made more appropriate.

Defining the scope of the project

Overriding objective of the project was to improve the country's trunk road system, to create international transit corridors to diversify the country's access to the sea, and to promote the role (of the project area) as a "land-bridge" between neighbours. Given this objective and the context of the road from Luang Prabang all the way to Paklai the scope of the road under this project should have been up to Thai boarder, which is some 6 km away from the current last point Kenthao. Seemingly there is no reason for limiting the scope for rehabilitating and improving the Paklay – Kenthao road to come to an end at Kenthao. The scope should have been to cover the road upto Thai boarder.

Similarly, national capacity building of the public sector as well as of the private sector was one of the main objectives of the project. The activities planned and output expected for achieving this objective appears to be inadequate. The project design did not sufficiently identify activities for capacity building. It is, perhaps, therefore, that the executing agency's role in the project implementation was limited to that of a distant facilitator, co-ordinator, and monitor of the implementation process. It was less involved than it would have been desirable. Capacity development of an agency takes place much effectively only if the agency itself is involved in actually doing things rather than it being an observer. Capacity development is a difficult issue and therefore it might not have been possible to already identify the necessary activities during the project formulation. Nevertheless, it was possible to address this by including components like capacity assessment and need of capacity building in the PCC's scope of work. Somehow, this was missed by the project formulation.

Institutional Arrangement

As per the institutional arrangement conceived for the implementation of the project the UNDP/UNCDF on behalf of the PCU were to hire the consultant for providing engineering design, supervision and management support to the project. The project document made it clear that the UNDP Laos will be the "client" for them and the PCU the "owner" and the main beneficiary of the services. First of all the consultancy services for the project were hired under the title of Project Co-ordinating Consultant (PCC). This gave a sense as if the consultants were to play co-ordinating role rather than providing engineering and supervision services. Secondly, by virtue of this institutional arrangement, the consultants were made to be practically accountable only to UNDP Laos, not to the project authority - the PCU for their delivery of services.

Consultant's TOR

Consultant's performance has been crucial for the degree of attainment of the objectives of this project. And consultant's TOR was (and generally is) a part of project formulation. In areas the consultant's TOR was less than explicit giving way for ambiguity. For example, it did not list those 13 points noted in the project document illustrating the scope of consultant's services and their role in the project implementation. Moreover, the TOR provided was not uniformly in one language most of it was in French and some part in English.

C. IMPLEMENTATION: STATUS AND PERFORMANCE

C1 Input Delivery

The project partners UNCDF/UNDP and MCTPC signed the Project Document (the agreement) on 20 January 1998, this is the day on which the project formally started. In the project design the first input planned was that of hiring an engineering design and supervision consultant to be done by 10 April 1998. The agreement with the consultant was signed on 14 May 1998, and were mobilised by the end of May 1998. The consultants effectively assumed responsibility only by beginning of June 1998, whereas it was targeted in the Project Document that the consultant would be mobilised by 30 April, and hence a month was already delayed in the life of the project in delivering the first input.

Exact dates for constituting the PCU and appointment of NPD, PM and supporting staff are not available from the project records including the progress reports, however it appears that the PCU was carried over to this project from LAO/89/CO4, the earlier UNDP/UNCDF project from the very early on. The office for PCU was immediately set up after signing of the project document and necessary furnishing and office supports like computer and printer were arranged.

It was planned in the project document that the repairs of Sayaboury - Paklay section was to be done during February - July 1998.

For overhauling of the UNCDF mechanised brigade was done by hiring a Master Mechanic (local) through UNDP/UNCDF for the period of January - March 1998. Part of the strength of the brigade was provided to SNCLP for doing the repair works in Sayaboury - Paklay section. For the supervision of this repair work a local engineer was hired by UNDP for January to April 1998. The repair work was complete by the end of April 1998. Finally, the mechanised brigade was auctioned by UNDP in June 2000.

As proposed in the Project Document the PCC was to complete surveying, engineering design and preparation of tender documents by 30 July 1998. The surveying, engineering design and preparation of contract document was ready and tendering process began only on 28 Aug 1998. But the opening of bidding showed that all the bidders' prices, including the engineer's estimates were much higher than what was budgeted in the project document. Therefore, in accordance with the UNCDF HQ instruction, the PCC lowered the original geometric standards and engineering specifications of the road design for reducing the cost estimates. Simultaneously, re-tendering was called, in which, the lowest 4 bidders were allowed to participate as per the advice of UNDP HQ Advisory Committee on Procurement decision. Re-tendering was over by 22 Jan 1999 and on 25 February 1999 agreement between MCTPC and Contractor Road 13 South & PaPhao Construction JV - the winner bidder, was signed (and authenticated by UNDP/UNCDF). The contractor formally started undertaking civil works on 1 March 1999 as against the planned date of 10 November 1998. The delay accumulated to become more than three months. Total time allowed for the contractor to complete the civil work was 18 months from 1 March 1999 to 31 August 2000.

Purchase of a project vehicle was arranged in August 1998 and was used by the PM throughout the project implementation.

In August 1998 a DCTPC Sayaboury engineer was arranged by MCTPC to be participated in the project implementation in the capacity of Deputy Project Manager. He

was based in the project site and working closely with the PCC. The UNDP/UNCDF Laos authorised this engineer to use a project vehicle from the LAO/89/CO4.

At the meanwhile, through the project financing, the PM participated in an English language course training from 12 July to 17 September 1999 in Australia and from 28 June to 15 September 2000 took part in engineering design course in Indonesia, Bandung. Also, from 22 May to 2 June Deputy Director of DoR participated in a Management and Road Maintenance training in United Kingdom.

UNCDG Missions

When the civil works was underway for about two months UNCDF HQ commissioned a mission (9 - 19 May, 1999; the mission was headed by Principal Technical Advisor Antonio J. Cittati) with a view to monitor the project progress. With a view to expedite the civil works and better manage the project the mission made some recommendations which were followed-up by parties concerned. For example, the soil test equipments from the LAO/89/CO4 were transferred to this project for the use of PCC in accordance with the mission recommendations.

Between 8 - 17 May 2000, realising that the progress on civil works output was rather too slow, a mission was fielded in by UNCDF HQ to assess the progress and financial situation, and identify bottlenecks, to recommend a realistic timeframe for the completion of the project. The mission was headed by Lutfallah A. Tueni, Consultant Engineer and Road Technical Expert. The civil works progress at that time was only 37.4 % completion as against the scheduled progress of 94.96 %. Due to the significant lag in civil works production there was a pending request from the contractor for a time extension. The mission after having assessed the situation recommended a time extension of three months with some suggestions as to expedite the work. The time extension was granted and new scheduled time for the civil works completion was pushed to 30 November 2000 from 31 August 2000.

PCC's agreement expired on 14 June 2000 and, as the civil work was ongoing, and contractor was granted a 3 months time extension, consultant's agreement was also amended to cover a period from 31 August to 31 December 2000.

Delay in civil works and DLP

Civil work continued for the period until 30 November 2000 and still the contractor was not able to complete the work. The contractor continued working beyond this time with a delay penalty at the rate of 0.1% of the contract amount per day for 75 days. The contractor's efficiency during this period in producing the rate of work was remarkably high. In early November 2000 the contractor's work was inspected and on 10 November 2000 Partial Taking-Over Certificate were issued denoting the start of the defect liability period for 36+600 to 56+600 section. Some works still remained unfinished in 00+000 to 36+600 and contractor was asked to complete them. Towards early January 2001 and another inspection was made and the Partial Take Over Certificate with a list of some outstanding work to be completed during defect liability period was provided to the contractor for this final section on 15 January 2001. So, the defect liability period for the total length of the road started effectively from 15 January 2001.

PCC's agreement was again amended to cover the period 1 January 2001 to 31 March 2001 so that the contractor's work could be supervised. For the defect liability period the PCC's service was not extended beyond 31 March 2001, instead a local civil engineer was hired (as one of the options recommended by Lutfallah mission) by UNDP/UNCDF

to oversee the contractor's liabilities during this period. On 11 April 2001 the road was formally opened in a ceremony, though there were some minor works still not fully finished and the contractor was asked to complete the same. Within the defect liability period during June - September 2001 the monsoon flood caused some significant damages in a section of the road. The runoff from an intensive monsoon flash flood was of much larger size than the cross-drainage structure could handle, and therefore, the culvert was washed away and the road embankment in this section was damaged. For this there was an issue and there were divided opinions as to whether it was due to faulty construction by the contractor or faulty design of the culvert (by the designer consultant) or was it a case of force majeure. Ultimately, the contractor undertook the repair works, accepting his liability by implication, and thus the case was closed.

On 28 March 2002 the final inspection of the road was made and Defect Liability Certificate was provided to the contractor.

HIV AIDS Component

In January 1999 Save the Children Australia in collaboration with the Australian Red Cross, Lao Red Cross and Sayaboury Provincial Health Division was contracted out the package of awareness raising of the construction workers as well as the people at large at the road corridor.

The HIV AIDS component was designed and implemented simultaneously with road rehabilitation civil works by Save the Children Australia, Australian Red Cross, and Lao Red Cross in collaboration with Sayaboury Provincial Health Division. Workshops were conducted in a "friend-to-friend" approach with village youths to impart basic knowledge about HIV AIDS and STD in 14 villages along the road. Workshops and eight health education sessions were conducted for construction for workers. Some 68 sex worker young women also were involved in two 2-days workshops for educating them on HIV AIDS. HIV AIDS education booklets and posters were produced and distributed. By end of January 2002 all the activities concerning this component also were brought to an end.

Table: Chronology of the Project Process
(Actual versus Planned)

Actual	Activity / Event	Planned
Pre-1985	Southward from Luang Prabang to Sayaboury and further south to Thai boarder has been a traditional transport corridor. There existed a very deteriorated road in this corridor.	
1987 - 92	Rehabilitation of Luang Prabang - Sayaboury Road (91 km) under UNDP/UNCDF Grant support.	
1987 - 88	A mechanical brigade was set up for the purpose of rehabilitating Luang Prabang - Sayaboury - Paklay road (242 km)	
1989 - 96	Rehabilitation of Sayaboury - Paklay Road (151 km) under UNCDF grant support.	
May 1996	GOL requested UNDP/UNCDF for funding for rehabilitation of Paklay - Kenthao road (57 km)	
September 1996	Feasibility Study of Paklay - Kenthao Road was done be UNCDF through UNOPS	
July 1997	Evaluation study of Sayaboury - Paklay Road done (by Royds Consulting Company, a Laotian research organisation). The outcome of the study was taken as the input for the formulation of the P-K Road Rehabilitation Project.	

December 1997	Project formulated by a consultant submitted to Project Appraisal Mission of UNCDF	
20 January 1998	Project document for P-K Road Rehabilitation Project signed by UNDP Res. Rep. and Vice-Minister MCTPC	
Jan - March 1998	Overhauling of UNCDF mechanised brigade complete	
Jan - April 1998	Sayaboury - Paklay repair complete	
14 May 1998	Agreement between UNDP and C. Lotti & Associati, consulting engineering firm signed for providing engineering services as PCC and start the job	30 April 1998
June - November 1998	Survey, design, and cost-estimates of the road and bid-document preparation by PCC	30 July 1998
28 Aug 1998 - 22 Jan 1999	Tendering and re-tendering (24 contractors were interested, 15 participated)	
10 October 1998	Contractors pre-qualified (6 Nos.)	
10 November 1998	Bids opening and evaluation (Lowest bid was much higher than the project budget and so was engineers estimates)	
1 -22 January 1999	Re-bidding process on the basis of the reduced cost-estimates for the 4 of the 6 pre-qualified contractors.	
January 1999	Start of the HIV/AIDS Prevention Project along the P-K Road by Lao Red Cross, Australian Red Cross and Save the Children Australia	
25 February 1999	Agreement between MCTPC and Contractor Road 13South & PaPhao Construction JV signed (and authenticated by UNDP/UNCDF)	30 October 1998
1 March 1999	Official start of the construction contract execution: civil works started	10 November 1998
19-29 May 1999	Technical Review Mission commissioned by UNCDF HQ (Antonio J. Cittati)	
12 July - 17 Sept 1999	Project Manager sent to Australia for English course	
March 1999 - Aug 2000	Construction Continued	
8-17 May 2000	Technical Review Mission, (Lutfallah)	
22 May - 2 June 2000	Deputy Director, DoR attended course on management and road maintenance	
28 June - 15 Sept 2000	Project Manager sent to Indonesia, Bandung for engineering and design course	
31 August 2000	Scheduled date for completion of civil works; work remained unfinished	
September - Nov 2000	3 months time extension provided to the contractor and by implication also to the PCC	
Dec 2000 - 15 Jan 2001	Contractor continued working with delay penalty to complete the works	
10 Nov 2000	Defect liability period for 36+600 - 56+600 section starts ⁷	
15 Jan 2001	Defect liability period for 0+00 - 36+600 section starts with list of outstanding works to be completed by the contractor during this period and 50% of retention money refunded.	September 2000
11 April 2001	Ceremonial opening of the road; some works still outstanding	
June - August 2001	Flood damages a section of road within DLP and therefore contractor was made responsible for the repair	
15 January 2002	Defect Liability Period for 0+00 - 36+600 section was over	
January 2002	Completion of HIV/AIDS Prevention Project	
28 March 2002	Final inspection conducted and Defect Liability	

⁷ Project Completion Report, April 2002, C. Lotti & Associati

	Certificate provided to the contractor for the whole road including final section (36+600 to 56+600) and retention money will be released soon.	
7-24 May 2002	Final Evaluation Mission	

Project Budget Disbursement

The project was financed through a total budget of US \$ 4,609,954 comprising of US \$ 438,000 as GOL contribution and US \$ 4,171,954 as UNCDF grants. For the UNCDF grant disbursement was made through payments made by UNDP Lao Office and UNCDF HQ. A particular procedure was followed for making payments to the contractor. The bills of payment from the contractor first approved by the PCC and then simultaneously certified by PCU and forwarded to UNDP Laos for payment. For the GOL contribution it was the same procedure that after the bills of payment were approved by PCU they were forwarded to Planning and Budget Division of the MCTPC which, in turn, forwarded it to the Ministry of Finance for payment. The payments made from GOL's contribution have been largely for staff salaries, office expenditures and for meeting only a small fraction of construction costs. The following table gives actual versus planned expenditures.

Table: Actual versus planned expenditure (US \$)

Source	Allocation		Expenditure		Balance
	Amount	Year	Amount	Year	
UNCDF	4,171,954	1998-2000	3,567,077	1998-2002 ⁸	604,877
GOL	438,000	1998-2000	280,415	1998-2002	157,585
Total	4,609,954	1998-2000	3,847,492	1998-2002	762,462

Note: Exchange rate used is US \$ 1 = Kips 4,250

In actual expenditure there was some variation from the original contract amount US \$ 2,951,859.17 in undertaking civil works. Final civil works cost was US\$ 2,200,800.45 (about 25% less). This was mainly due to the reduction in quantities as affected by downsizing of the engineering specification of the road. The carriageway was reduced from originally 7 m to 6 m, base course thickness was reduced from 30 cm to 15 cm and there was also some variation in the original vertical profile. Unit prices did not vary throughout the project period.

Payment to the civil works contractor was made by UNDP/UNCDF upon receiving of the certified and approved monthly invoices within a reasonable time, though there have been some delays in making the payments. The duration of delays is not available and it seems that such occasional delays did not have adverse impacts of any significance on the progress of the work. The 50% of the retention money is yet to be paid to the contractor. There have been some overpayments to the contractor due to double counting of length in certain section. This has been identified and sorted out and is proposed by the PCC's Project Completion Report to be deducted from the retention money.

There was some income to the project from the penalty imposed to the contractor for his delays in setting up a soil test lab at the beginning and for delivering the civil works output. The total amount of this penalty was US \$ 92,013⁹.

There was only one vehicle purchased (Toyota Land Cruiser) by the project. The purchase of spare parts and maintenance of this vehicle was done through the

⁸ As of 20 May 2002. The expenditures, if any, made from UNCDF HQ are not included.

⁹ Project Completion Report; Project Co-ordinating Unit.

authorised dealers.

C2 Programme Management Systems Performance

C2.1 Implementation Arrangements

As proposed by the Project Document the implementation arrangement for the civil works concerning Sayaboury – Paklay repair and maintenance was made by directly involving SNLCP and the work was supervised by a hired engineer. The engineer worked under MCTPC / DCTPC. For Paklay – Kenthao road rehabilitation civil works a local contractor was hired under local competitive bidding and was managed under FIDIC General Condition of Contract. For engineering design and supervision an international consulting firm was hired through UNCDF/UNDP. This arrangement gave satisfactory results in producing civil works of desired quality though there were some delays during early stage of the construction period of P-K road rehabilitation. However, it should be noted that for managing the civil works contractor according to FIDIC General Condition of Contract it usually turns out to be rather less cost-effective expensive for works of smaller magnitude and works of less sophisticated nature. This was very clearly exhibited by the experience of this project as well. For meeting the FIDIC conditions as per the AMCD the contractor had to fulfil wider range of liabilities, for example preparation of execution drawings. Such liabilities entail extra costs to the work and that is reflected in the contractor's bidding prices escalating the total cost of construction. Also, for supervising the performance of the contractor one requires more comprehensive supervision services and cost for which is significant. For example, in case of this project, for a civil works costing US \$ 2.2 million engineering design and supervision service costing US \$ 768,000 (more than 35%) had to be arranged. This is fact not all that appreciable from the project-economy point of view. The high cost of consultant's service, perhaps, would have been justified if various activities pertaining to capacity development objectives of the project were included in the consultant's scope of services. It is also viewed that by breaking the civil works into smaller packages and arranging engineering and supervision services from firms with better local experience and knowledge could have resulted into better economy of the project. Such arrangement would have rendered lower bidding prices and lower supervision cost. At the same time the ADB project developed AMCD could have been further adapted to suit the nature and size of this project instead of following it as it is.

As per the institutional framework of the project hiring of the engineering design and supervision consultant was done by UNDP/UNCDF on behalf of the PCU. Though, the consultant was asked to be accountable to the executing agency on day-to-day technical and managerial matters of the project implementation, in many instances, the consultant did not show any accountability to the project authority. This was, but, obvious as the consultant's accountability was tied up with UNDP/UNCDF by virtue of financial agreement. There were instances where the consultant was misinterpreting their role. For example, the consultant was approving the contractor's bills, whereas their correct role should have been to certify the bills and it would have been the project authority who would approve or disapprove and accordingly forward the bills to UNDP/UNCDF for payment.

The project management was required to be flexible for achieving desired project results at times. Granting of time extension, arranging local engineer for overseeing the DLP are some of the examples of the management being flexible and capable to change as the situation demanded. At the same time too much flexibility and being prone to quick and easy changes might not always be good. Some rigidity may equally be necessary for the

quality of the output from the project management and it was perfectly exhibited by this project. Imposition of the penalty to the contractor for his delays in producing civil works in this project is an example to this effect. Therefore, it can be concluded that the project management exhibited a balance of flexibility and rigidity as per the rightful demand of the situation.

C2.2 Management system

The overall management system of the project was represented by three-tiers of management levels. The UNCDF-MCTPC exercising through PCU and consultant had some management roles and this represents the top-most level of management. The PCU (project authority) managing the contractor and consultant was the middle level management and at the bottom was the contractor's self-management.

The management capability at second and third level in aspects of staff performance, quality of work-planning and staff qualification was fair enough, but was not certainly the best. Instances of contractor not having appropriately qualified site manager were encountered during the implementation. Such situation was immediately addressed by higher level of management and was rectified. As one of the objectives of the project was that of capacity building, which practically meant enhancing the management capability of this second and bottom tiers of management levels such happenings in the project were to be taken as normal. Therefore, taken together all the three tiers of management levels it is viewed that the overall effectiveness of the management system was satisfactory.

The project management, essentially the PCU under MCTPC - the second tier, was quite responsive and exhibited sincere accountability towards donors and other stakeholders. The financial management, handled largely by UNDP/UNCDF was efficient and transparent.

C2.3 Procedures

The National Project Director and Project Manager were directly deputed by the MCTPC as provided in the Project Document. NPD was Director of DoR and Project Manager was a senior civil engineer having had 12 years of experience with MCTPC. The supporting staffs were hired from the market just for the project purpose. The supporting staff exhibited the necessary qualification and experience. The short-term consultants specially for overseeing the DLP also were hired from market by calling for CVs, short-listing and finally assessing qualifications through interviews. This procedure was adopted in general for hiring staff.

C3 Operational Issues

At the beginning Road 13South & Pa Phao JV started organising civil works production in their own. The progress was found to be objectionably slow; therefore, part of the work was sub-contracted out to a Thai contractor, who started working from Kenthao end. Later, in the more difficult sections in the north a Chinese sub-contractor was brought in. Out of the total magnitude of civil works about one third was done by first Thai and later Chinese sub-contractor combined. The Road 13South/ Pa Phao JV bought the pre-stressed concrete beams for the bridge over Namkai River from Thailand. At one time there usually used to be three working sites simultaneously at different chainages at any one time on-going construction. The construction approach was that of an equipment-based and mechanised. Therefore, most of the workers were equipment operators,

helpers and skilled labours. It was reported that the wage rate paid by the contractor to the workers was higher than the prevailing local market rates. The sub-contractors brought most of the key workers like operators, foreman, and supervisor from their respective countries. Interviews with the people in the road corridor revealed that the worker camps were usually outside the village settlements and there was not any security problem reported.

C4 Monitoring and Evaluation

As described earlier in this document the monitoring and evaluation (M&E) in this project was based on lines of reporting: from the contractor to the consultant, from the consultant to the PCU and UNDP/UNCDF and from PCU to UNCDF. The purpose of this project-housed system of M&E was to provide regular feedback to the management enabling it to take necessary decisions for continuation or changes in the process (quality control of inputs) and to provide record of process and achievements for evaluating the progress. This project-housed M&E system was supplemented by review missions organised by UNCDF HQ for addressing quality of the project outputs and for resolving stand-by problems, if any.

It is found that the modality of M&E proposed by the Project Document was generally practised in the project implementation process. However, there were some gaps, for example, the evaluation mission could not trace the consultant's Inception Report. Also, the quality of the reporting particularly by the consultant was far less than satisfactory. The consultant's Monthly and Quarterly Progress Reports did not give adequate information on activities, the process and achievements. The same is applicable also with the consultant's Project Completion Report. Quality of the reporting from PCU, which heavily depended on the reporting of the consultant to them, was also not upto a satisfactory level.

There have been number of missions organised by UNCDF HQ during the project implementation. The missions, led by UNCDF staff-members or external consultants, have been useful in resolving various stand-by problems like time extension to the contractor and take necessary decisions. Missions undertaken by Bettina Furhmann, Program Manager and Normand Lauzon, Executive Secretary were geared more towards monitoring the overall progress of the project. There have been two Technical Review Missions by Antonio Cittati (November 1998 and May 1999) and one by Lutfallah A. Tueni (May 2000) designed for reviewing the project process and outputs technically and for making necessary recommendations with a view to particularly supplement the project-housed monitoring system. It is noted that Lutfallah Mission was quite effective and was comprehensively reported whereas Cittati Mission was rather weak in terms of addressing the stand-by issues faced by the project and in making necessary recommendations. Both of the Cittati missions seem to have identified the weak performance of the PCC at very early stage, however, no effective and strong recommendation for action were made for improving the situation.

Therefore, in sum total, it is viewed that M&E system of the project was one aspect that was rather weak.

A baseline survey of the project area was completed in October 1997¹⁰ with a purpose to establish an information baseline so that future impacts of the road could be measured. The data and analysis provided in this study are quite substantial and were found useful

¹⁰ Paklay-Kenthao Road Rehabilitation Sayaboury Province, Socio-Economic Analysis; Royds Consulting (Laos) Ltd; October 1997

for comparing with whatever initial indications of socio-economic impacts due to the road have begun to show up. Besides the regular national census (the last one was conducted in 1995) not much is found in terms of regular data collection in Sayaboury Province. The sectoral offices at the districts and province do have some sectoral data updated, but that is usually fragmented and incomplete. There was not any socio-economic data collected by the project that could be useful for impact monitoring.

D. RESULTS AND OUTCOMES

D1 Outputs and Results

There have been mainly three outcomes of this project: Physical infrastructure – the repaired Sayaboury – Paklay road, rehabilitated Paklay – Kenthao road and bridge over Namkai river; built capacity of the MCTPC to undertake similar projects and better business capacity of the private sector civil works contractor; and increased awareness on HIV AIDS of the people in the road corridor. These outcomes are discussed in the following sections.

D1.1 Physical Infrastructure

The main physical outputs of this project are the repaired road from Sayaboury to Paklay, rehabilitated road from Paklay to Kenthao and the bridge over Namkai River. Paklay was already accessible through a all-weather gravelled road from Sayboury, the provincial capital of Sayaboury province at the time when this project started. This road needed repair of some spots at different sections and maintenance all over the length. This is found to have been done effectively and efficiently achieving the recommended gravel standard at the early period of the project. The P-K road was estimated to be 63 km during project formulation. Eventually, when built it came out to be 56.66km long. Of which 32.66 km section was a badly deteriorated road rehabilitated and 24 km section was an existing track newly built. The road is now having a 6m carriageway width with 0.50 cm to 1.00 m shoulders. Side drains in the form of earth ditch are provided only in some sections. The pavement of the road is composed of 15 cm crushed base course (wearing course) and 15 cm aggregate sub-base course. The carriageway cross-slope is generally provided with varying gradient. The maximum longitudinal gradient appears to be around 10 % for short sections¹¹. Necessary cross-drainage structures like pipe culvert, box culvert and a bridge at Namkai river (at 9+500 from Paklay) are provided. The rehabilitated road is now part of a National Highway of class C. It's construction cost (including design and supervision cost) is US\$ 52,396 per km including the bridge. Separated bridge cost is not available. It took some 23 months in total to complete the civil works of the road and the bridge as against 17 months estimated while project formulation.

The overall technical quality of the road is at par with what was envisaged by the Project Document. However, some weak areas in the design and/or construction of the road have been noted as following.

- a) In many sections where provision of side drain would seem to be a most desirable as the topographical features suggest the same has not been provided. The engineer designed typical cross-section shows that there is provision of side drain, but somehow side drains, even in the form of earth ditches are missing. It is not possible to say whether this is due to a faulty design or supervision.
- b) In most embankment sections the embankment slope appears to be higher than desirable. These sections may flatten soon causing the whole cross-section gradually falling off. This is viewed to be technically unsound.
- c) The cutting in the side hill-slopes in some sections is observed to be higher than desirable. These slopes are likely to fall off during the monsoon and

¹¹ Consultant's Project Completion Report claims it to be 6 %.

deposition may clog the side drain, wherever they are provided or debris deposition may obstruct the road.

- d) During the fieldwork of the mission it rained intensively a few times. This was the very early part of the monsoon. The mission witnessed formation of some small gulleys on the gravel surface of the road in some sections. Also, some potholes were noticed. Plying of vehicles during rain invigorates the formation of gulleys and potholes on the gravelled road surface. By the end of monsoon the road surface in particular is likely to require significant repair and maintenance. This raises the issue of whether a gravel surface is appropriate for a high traffic road in such a climatic condition. Therefore, it is advisable that a careful economic appraisal be made by comparing the total cost (initial construction plus maintenance and rehabilitation costs) over project life comparing gravel surface and asphalt surface for such roads exceeding, let us say, 50 vpd. Asphalt surfacing may outweigh gravel surfacing in the long-run.

During the construction there were as many as 186 workers at any one time involved in the peak period. Figures on exact labour in-puts are not available, but an indirect estimate indicates that the road construction generated in the range of 50,000 person-days of wage labour in total for the local people.

D1.2 Capacity building

Within the project there have been some specific activities undertaken that did directly contributed to capacity building outcome.

- a) As also noted earlier the project provided training opportunities for Project Manager and other senior staff of MCTPC abroad. This has certainly contributed to building MCTPC's capacity on policy formulation, project management, technical design and reporting.
- b) An engineering staff from DCTPC was involved in working together with the consultants in the work sites in supervising the civil works production by the contractor generally and for coordination with the local authorities.
- c) In the project there were some limited opportunities for MCTPC staffs, particularly those involved in PCU, for getting involved in different aspects of managing the project. In the tendering process PCU was involved in notification and facilitation of procedural matters. Also, PCU was involved in arranging inputs for supervision services through individual consultant to the project.
- d) The project also contributed to institutionalisation of the procedures, though to a limited degree, by developing the contract document format in the tendering process.

D1.3 Increased Awareness on HIV AIDS

Increased awareness of people living in the road corridor and the labours involved in road construction on HIV AIDS was one of the important outcomes of the project. As aimed by the project to raise awareness on HIV AIDS in the road corridor it was found that the general level of knowledge about HIV AIDS among the people living there is found to be reasonably high. This was specifically noticed while interacting with the villagers. However, the main target groups of the HIV AIDS awareness activities were the construction workers and as most of them were no longer in the construction sites during Mission's fieldwork it was not possible to directly assess their level of awareness. In overall, the Mission interacted with the people at large in the road corridor and is of the

view that there is an increased level of awareness on HIV AIDS due to the project activities.

D2 Immediate Objectives

D2.1 Objective 1

Improved economy and communications within the Sayaboury Province has been the first immediate objective of this project. For this the Paklay - Kenthao road was rehabilitated, Sayaboury - Paklay road was repaired and maintained and the UNCDF mechanised brigade was overhauled. For the purpose of measuring the attainment of this objective some indicators were identified and some targets were set while conceiving the project. One of the targets was 40 % decrease in vehicle operating cost. Vehicle operating cost directly depends on the roughness of the road surface. The IRI (International Roughness Index) of the road before construction started (measured on 18 June 1999) was varying between 11.98 m/km to 28.31 m/km averaging 19.22 m/km. When the roughness index was measured after the road was completed (on 17 May 2001) it was found varying 0.90 m/km averaging 7.19 m/km¹². Thus, there is a reduction of about 63% in IRI indicating similar decrease in vehicle operation costs. The accessibility measured in terms of travelling time has been significantly improved. It was revealed by the Provincial and District officials that commuting between Kenthao to Sayaboury in a single day was not possible before the road was rehabilitated. Now, this can be done in four hours. There are indications of rise in the local enterprises, markets and exports from the area. It is hard to judge the changes in degree of Government's capacity for road maintenance attributable to this project. However, as a result of accumulated experience of road works from earlier sections the DCTPC seems to have a reasonably good managerial and technical capacity for road maintenance indicating some likelihood of attaining this target. It is viewed that the DCTPC can manage, in its own, perhaps with much little support from outside, the small-scale road maintenance and rehabilitation work provided, of course, there is money available for it.

D2.2 Objective 2

National capacity building in road construction in public as well as private sector has been one of the main objectives that the project was conceived with. This specifically meant enhancing institutional capacity of MCTPC to manage road construction by hiring services of local contractors applying Laos-adapted FIDIC General Conditions of Contracts. It also meant enhancing the management capability and performance of the private contractor that would be involved in this project. It was proposed that by working together with the consultant and by participating in training opportunities such capacity at the MCTPC would be developed. Similarly, the contractor working in supervision and guidance of internationally experienced consultant would develop the capability. Interacting with the MCTPC staff involved in the project, particularly the members of PCU, gives an impression that there is some capability developed as an effect of the experience gained through this project. The Mission did not have opportunity to interact with the contractor, therefore, nothing much can be said about the contractor's capacity building owing to this project. However, his improved efficiency towards the end of the civil works was noted to have been dramatically improved. So it is assumed that contractor also benefited by the project in capacity building.

¹² From Report on "Road Roughness Measurement, C. Lotti & Associati Rome, May 2001". The least count of 0.90 m/km is probably a mis-representation and instead the correct least count could be 4.25 m/km. However, this would not make much difference to the average value of 7.19 m/km.

Another aspect of capacity building would be assessed from aspects as to how much the institutionalisation of the process and procedures have taken place. This would generally be reflected in any adoption of appropriate policies and development of appropriate modalities and formats. Formats some documents, particularly the Tender Documents, were developed by the project and now they are with MCTPC. No specific policies were found to have been developed and adapted by MCTPC out the project. It is found that the project directly adopted AMCD for developing Tender Documents for P-K road rehabilitation, though it is viewed that revision and further adaptation of AMCD should have been desirable for making it more suitable for such projects. The project practiced procedural experience remains with the MCTPC and this has certainly helped capacity building.

However, it is felt that much more could have been achieved in the context of capacity building if a) the MCTPC's need assessment were done and, based on it, specific capacity building packages were developed and implemented; b) MCTPC's personnel were more, and in a progressively increasing fashion, involved in managing and supervising the contractor. In lack of these, it is viewed that the project was weak in achievement of this particular objective.

D2.3 Objective 3

Third objective of the project was to minimise potential negative health and environmental impacts. It appears from the results of the project processes that potential adverse impacts on both environment and spread of HIV AIDS have been minimised. Though the threat to the environment from the road was not all that big¹³ there was some concern over slash and burn practice and logging. On both the accounts, discussed in detail in the following paragraphs, the indications are such that, in fact, the project has resulted into benefits. There are many factors responsible in spreading of HIV AIDS, the road is just one. The increased level of awareness noticed in the project area suggests that the HIV AIDS awareness activities within the project definitely have contributed in limiting its spread. It is, therefore, considered that the project was successful in attaining this objective.

The success of HIV AIDS awareness activity is also exemplified by the fact that similar awareness components have been added to new road projects in Laos e. g. SIDA/ADB (Part of ADB - 9 NR 3).

D3 Impact Evaluation

As it is only over a year since the Paklay-Kenthao road was opened it is too early to expect that the full range of socio-economic impacts of the road is visible. Therefore, prior to evaluation mission started fieldwork, it was hoped that one may be able to see only some early indications of the impacts. During the fieldwork various tangible indicators of impacts were, actually, encountered. Some data from the Provincial offices and district offices were collected and analysed as against the socio-economic baseline data of 1997¹⁴ for the area. The Mission interacted with the district and provincial officials as well as with the villagers along the road corridor for information and their views. This assessment represents the review of the earlier works and the findings of the fieldwork including direct observations that the Mission made.

D3.1 Land Use and Environmental Impact

¹³ Environmental Assessment, Project Document

¹⁴ Socio-economic Analysis, Royds Consulting (Laos) Ltd.

When a road construction takes place in a virgin area, as it makes a physical scar on the landscape, it usually has various immediate and localised adverse impacts. But this project case was that of rehabilitating or improving an existing road, therefore, there were not any significant immediate adverse impacts in the corridor and vicinity. No major erosion of any significance, obstruction or changes of run-off flows, and project generated wastes (particularly during the construction) affecting the local health conditions or agricultural production or local soil productivity in a significant way was observed.

Sayaboury province is known for it being the first province in Laos to have implemented the government policy in allocating land titles to private ownership aiming at sustainable use of land and forest resources. This has been one of the Government policies under new liberal thinking and administratively the provincial offices are to play more of a planner and the policy makers whereas the district level offices are for implementation.

Predominant Land Uses

The road, by way of indirect impacts, is certainly bringing significant changes in the land-use patterns of the area, particularly in and within the close vicinity of the road corridor. For some areas concrete evidence of land-use pattern changing can be seen and for others there can be seen some early indications.

Presence of an extensive agricultural landscape with large blocks of cultivable land is one of the characteristic features of this part of Sayaboury. This is something not very common in Laos. Rapidly changing technology in agricultural implements is another distinctive feature; use of tractors for ploughing as well as for transport goods is noticeably high in the project area. It was encountered during the Mission's fieldwork that the farmers are using tractors also on gentle slope lands. One of the immediate changes that the road has brought to the area is the market opportunity for the local produce, specially agricultural cash crops. Among other things, as there was significant market and profitability for maize production due to the road, there is a rapid shift to maize cultivation specially in traditional slash-and-burn areas. Large patches of traditionally slash-and-burn areas could be seen covered with maize plantations. This is a remarkable change in the land-use practice of late in the project road corridor. In the long-run this trend is likely to have a discouraging effect to the slash-and-burn practice – resulting into a net environmental benefit, particularly in reducing the loss of bio-diversity.

The rehabilitation of the road had a very limited direct impact on the forest, as there was no need to clear the forest for making the road width in the sections of existing road or a track. Consultations with the project officials and local people reveal that it is only rarely that trees of reasonably large diameters had to be removed during the construction.

Logging

Based on the statistics from Paklay and Kenthao District Agriculture and Forestry Sections the logging quota for Paklay is 6,500 m³ for year 2002 compared to 9,790 m³ in year 1997. For Kenthao, the logging quota is reduced to 500 m³ in year 2002 compared to 3,500 m³ in year 1997. The officials claim that this production quota will probably not be met because in principle only dead and old trees are allowed to be cut and there are not many such trees available within a viable access distance from the road. This means that there is likely that the total volume of logging would actually be less than the assigned quota for 2002. Moreover, the government has also made it's policy clearer about the sustainable use of forest resources. In the mission's observation

no substantial production activities were met with in the various sawmills in Paklay and Kenthao. The log yards were half-empty. This would suggest a reducing trend of logging. However, what the Mission was able to observe might not represent the complete picture of logging practice, as there is no denial of the illegal logging from the forestry officials and the villagers.

Community and private teak plantations were important part of the landscape along the road. Teak plantation has been a long tradition in the project area together with the fact that the area is known as home to one of the largest natural teak forests in Laos. This should be viewed as an important foundation for development of forestry at the community and village level and realisation of government's policy on sustainable use of forest resources in practice.

The mission learned from informal sources about the planned construction of a wood-complex facility of Lanexang Forest Development Company Ltd. based in Nam Pouy area. This company is a joint venture between Lao investors and Malaysian HIPA Group. The JV has received a concession from the government for the exploitation and plantation of forest in Sayaboury and Vientiane provinces and expressed an interest to use the project road for exporting its products.

Once the serviceable road is in existence it will be used for wood products, non-timer forest (NTF) products, agricultural products and industrial products to bring them to the market. Therefore, it becomes, but natural that in regulating logging for checking deforestation, factors like forest management at government, community and private level and regulatory measures are of paramount importance. As yet, it is hard to establish direct correlation between the good road conditions and negative consequences on the forest resource base. A good sign is that the government and the provincial authority have made an early move by setting aside 1,912 Km² of forest area as national biodiversity conservation area (NBCA) including 127,000 ha in Paklay and 18,785 in Kenthao districts. Also, it is hoped that the area would benefit from the Nam Tan Sustainable Watershed Development project (forest management and watershed protection) implemented not far off from the project area.

Wild Life flora and fauna

The province of Sayaboury is also well known as the habitat of domesticated elephants as well as other wild animals. During the Mission's fieldwork wildlife hunting of any significance was not noticed, neither any market of wild life or their parts and products noticed in the urban centres of Sayaboury, Paklay and Kenthao. This is viewed as to suggest that the wildlife, flora and fauna were not put under any kind of particular threat due to the rehabilitation of the road. However, based on the experiences in similar settings of Lao PDR, with or without good roads, hunting wild animals for source of food and money is a socially accepted common practice. And it is believed that the project area is not free of this prevailing practice. It will take time for this practice to be uprooted. A positive move is made by the government since a couple of years by banning the possession of illegal rifles as well as hunting in breeding season, sale and purchase of wild animals. The move in general has begun to show its early positive effect, though it is hard to know the number of wild animals hunted as the practice is considered illegal and the trade is made almost secretly.

Road drainage discharge

At about 3+000 km chainage north of Kenthao a box culvert (a cross-drainage of the road) directly discharges to a farmer's paddy field passing over to an irrigation channel

running along the west side of the road. The farmer has been complaining that there has been sediment (sand, pebbles and gravel) deposition from the road discharge on his field. The outlet of this cross-drainage has been an issue from the very beginning. Initial design of the road in this section provided for directly discharging the runoff from the culvert to the irrigation channel. The irrigation department did not agree to it and therefore the cross-drainage structure was extended to the field passing over to the irrigation channel. This solution was recommended by UNCDF Technical Review Mission¹⁵. There is a real adverse impact of this sediment deposition on the productivity of the paddy field to some extent. There is not much likelihood that the spread of the sediment deposition will go beyond, let us say, first 100 square meter of the outlet vicinity. This limited adverse impact can be minimised by constructing a pond right at the culvert outlet where the sediments and debris would settle. The management of the pond could be given to the farmer, who, in fact, could use this pond as a water reservoir or a fishpond. The benefits thereof could be regarded as the compensation to the farmer for the loss of land productivity that he has to bear.

Dust and Noise pollution

Upgrading of the road has resulted into large increase in traffic volume. Some dust and noise pollution due to the road especially in sections passing through villages was expected. However, during the mission's fieldwork there was lot of rain in the area, and therefore, no observation of any kind regarding this could be made. During the interaction with the villagers the issue the Mission specifically asked the villagers about this issue and they were not complaining about it. Similar is the case with regard to the noise pollution. The villagers accepted that there is definite rise in the noise as compared to the pre-road situation, but they were not complaining about it.

D3.2 Settlement Patterns of Local Populations

The following table summaries the demographic characteristics and changes therein during the past four years (1997 to 2001). It is noted that there has been a rise of 4% and 9% of the population respectively in Kenthao and Paklay over the four years and this rise is noticeably higher than the 1 to 2.25% over the same period in the whole of the Sayaboury province.

Table: Demographic Comparison in 1997 and 2001
(Paklay and Kenthao districts)

Number of population	Paklay			Kenthao		
	1997	2001	Increase (%)	1997	2001	Increase (%)
Male	27,341	30,111		17,051	17,606	
Female	26,991	29,129		16,441	17,247	
Ethnic group:						
Lao Lum	53,327	58,079		32,982	34,697	
Lao Theung	604	436		45	2	
Lao Soung	402	725		07	84	
Others	2				70	
TOTAL	54,332	59,240	9	33,492	34,853	4
Number of villages	77	77		58	58	
Average household size	6	6		5	5	

¹⁵ Antonio Cittati; Technical Review Mission; May 1999

Number of households	9,075	10,558		6593	7077	
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Source: Paklay and Kenthao district administration

The rehabilitation of road, and the opportunities that it seemingly opened for trade, industries and production in general, may be one of the main factors responsible for this rise in population in these two districts above the provincial average.

In and out - Migration and Resettlement

There are not any apparent signs of significant in-migration to and out-migration from the two districts particularly the road corridor area. As noted above the slight rise of the population above the provincial average is not visually self-evident. The villager headman of Na Sak village of Paklay district, for example, reported that two persons have moved out from his village; one to help run some family business in Kenthao and the other one just to live with the relative in Paklay over the period. Similarly, a young couple from Ban Tak Det (close to Mekong River side) have moved closer to the road to open a small groceries shop. The young man said he had enough of working in the paddy field and would like to try something different. He has now more time to spend with his young wife and their first baby. There are some cases of this kind indicating that there has been some population movement within the area resulting into noticeable resettlement. There were new houses built or some on-going construction along the rehabilitated road. This was quite noticeable. This is viewed as an early indication of the road attracting settlements closer to the road and it is likely that the road will play detrimental role in reshaping the settlement patterns of the area.

D3.3 Socio-economic Impact

The socio-economic impacts due to the road in the two districts in general and within the corridor area in particular have begun to show some early indications. The road has not only significantly contributed to the reduction of deprivation and vulnerability of the local people but also brought an impetus to stimulate the local economy as well as some apparent change in living standards and behaviour of the people. These advance indications of impacts are explained in the following paragraphs with respect to chosen indicators.

Health

A positive impact on the health situation of the villagers is, perhaps, one of the most remarkable impacts generated by the road. The provincial Health Division reported that there is much ease in providing health services as there is a better access to the villages for the health staffs making visits. It is much easier for the health staffs to conduct health, hygiene and diseases prevention awareness campaigns. Construction materials and equipment for building rural dispensaries could be easily transported to sites where they are needed.

On the other hand the villagers also claimed that they can make visits to the provincial or district hospitals to obtain health treatment with far greater ease and convenience. The villagers told the Mission during interactions that now hospitals are within their reach and they have now a "sense of health security". One villager of Ban Houay Lod said: "Before, when the road was not good, sick people had to be carried on a hand-cart to the hospital requiring many people to carry one sick person and many hours or even days. It was difficult, time consuming and costlier."

In fact, the number of hospitals remains the same as in 1997 whereas the number of health centers has slightly increased. The number of pharmacies has doubled in Paklay and increased by 60% in Kenthao (Please refer the Table below). However, the hospitals are better equipped and the medical persons are generally better trained compared to the situation in 1997.

Table: Comparison of Health Facilities in Paklay and Kenthao district (in 1997 and 2001)

	Hospitals		Health centers		Beds		Pharmacies	
	1997	2001	1997	2001	1997	2001	1997	2001
Paklay	1	1	7	8	48		15	24
Kenthao	1	1	8	10	54		4	8

Source: Districts administration

Significant increase in number of medical staff has been recorded in the past 4 years. The number increases by over 2 fold for Pakay and Kenthao both. As a result, the medical staff to population ratio increases from 1/734 in 1997 to 1/588 in 2001 for Paklay and 1/229 to 1/208 for Kenthao as indicated by the table below.

Table: Comparison of medical staff presence in Paklay and Kenthao (in 1997 and 2001)

	Staff						Staff/population ratio	
	Non medical		Medical total		High level doctors			
	1997	2001	1997	2001	1997	2001	1997	2001
Paklay	2	87	74	171	7	9	1/734	1/229
Kenthao	1	2	57	165	4	4	1/588	1/208

Source: Districts administration

The changes in the health indicators suggest that there is a positive trend in both districts. The birth rates have slightly increased from 1996 to 2001, but more importantly the mortality rate has decreased in this period. Live expectancy in both districts is above average of the whole province as shown by the table below.

Table: Comparison of Health Indicators of Paklay and Kenthao districts and Sayaboury province (in 1996 and 2001)

Health indicators	Sayaboury Province		Paklay district		Kenthao district	
	1998	2001	1996	2001	1996	2001
Birth rate (1/1000)	19	30	20.77	25.80	20.42	21.20
Mortality rate (1/1000)	3	3	2.79	2.34	2.88	1.87
Life expectancy	44	46		51		56

Source: District administration and provincial Health Division

Mosquito-borne diseases, sexually transmitted diseases and accidents are found to be the major causes of morbidity for both districts. Malaria and Dengue scored highest as causes of morbidity; and this is considered somewhat common for the area. Considering the number of accidents caused death figures for such a small population in the two districts it is considered rather alarming, though the records pertaining to location and type of vehicles associated with these accidents are not available. Traffic education and better traffic regulation seems to be highly in need.

Table: Causes of morbidity in 2001

Diseases / Illnesses	Sayaboury province		Paklay district		Kenthao district	
	Number of cases	Percentage	Number of cases	Percentage	Number of cases	percentage
Malaria / Dengue	5,488	18.2	215	70.00	206	78.00
Lung diseases	2,519	8.36	4	0.01	1	-
Diarrhoeal disorders	1,778	6.23	-			-
Stomach infection	2,179	7.23	-			-
STD			33	11.00	14	5.00
HIV/AIDS	0	0	0	0	0	0
Accidents			57		44	17

Source: Provincial Health Department and District administration

Education

Seen from the statistics pertaining to the education status there is some change over the last four years in the two districts. The changes are varied making it difficult to conclude anything. Moreover, it is even more difficult to attribute these changes, whatsoever, to the improved condition of the road. For example, in Paklay there is an increase of a primary school whereas a decrease of two secondary schools from 1997 to 2001.

The total number of teachers has increased by 87 in Paklay while the number decreases by 45 in Kenthao in the past 4 years. The overall number of pupils in Paklay district has decreased by 36 from 1997 to 2001. And in lower and upper secondary schools an increase of students by 129 and 57 respectively recorded. A similar trend is observed in case of Kenthao too, showing a total of 599 decrease in students.

Table: Comparison of distribution of school and teachers in Paklay and Kenthao in 1997 and 2001

		Primary School		Lower Secondary		Upper Secondary		Total	
		1997	2001	1997	2001	1997	2001	1997	2001
Paklay	Schools	72	73	11	9	1	1	84	83
	Teachers	414		140		27		581	668
	Pupils	12,144	11,822	1,836	2,065	622	679	14,602	14,566
Kenthao		Primary School		Lower Secondary		Upper Secondary		Total	
		1997	2001	1997	2001	1997	2001	1997	2001
	Schools	50	50	8	6	1	1	59	56
	Teachers	254	208	87	75	16	29	357	312
	Pupils	6,065	5,040	873	1193	243	394	7181	6582

Source: District administration

It was expected that there would be some impact of the improved road condition on education in the locality. The changes indicate that there is a quantitative drop. In development of education there are various factors working simultaneously and the road has a very insignificant part of the role to play in this. Therefore, the changes, specially the negative ones, shown in the education statistics have perhaps very little to do with the road. However, the road has certainly contributed in improving quality of the education as it provides better access to the outside world from the villages there.

Local travel and transport

During a conversational interview with the Mission a farmer said “Now we can sell anything we produce anytime of the year. There are plenty of taxis (and pick-ups) and Tuk Tuks around”

At least 3 regular public transport vehicles originating from Paklay shuttle between Paklay and Kenthao per day. At least 5 vehicles between Paklay and Sayaboury operate while at least 7 public transport vehicles per day operate in the opposite direction originating from Sayaboury and Kenthao to Paklay. Before the road was rehabilitated it used to take a whole day to travel from Paklay to Kenthao even if a transport vehicle was found; now there is a certainty of transport vehicles being available and it is a matter of less than two hours drive in commuting between these two points and to go out to Sayaboury.

The passenger fare for public transport has reduced by 36% compared to the actual rate of 1997 (if Thai Bath is used as reference). In 1997, the passenger fare between Paklay and Kenthao was Kip 35/km (equivalent to Thai Bath 1.25) while the fare in 2001 is Kip 210/km (equivalent to Thai Bath 0.92).

In the towns of Paklay and Kenthao the Mission noticed, and was confirmed by the local residents and traders, that there is a remarkable rise in the visitors from the surrounding villages and outside.

There is remarkable rise in the vehicle ownership in the area. In Paklay, the number of motorcycles has increased from 586 to 1,225 units within 4 years. The number of pick up has increased from 81 to 97 for the same period. Interestingly, the number of the heavy trucks has decreased from 55 to 31 (Please see the table below). It is believed that this decrease is due to the disappearance of some logging trucks as logging has become more restricted. Though figures were not available from Paklay District it is believed that a similar trend holds true for Paklay too.

Table: Vehicles availability in Paklay and Kenthao (in 1997 and 2001)

	Paklay		Kenthao	
	1997	2001	1997	2001
Motorcycles	314	n.a.	586	1,225
Tricycles (Tuk Tuk)	74	n.a.	6	9
Light vehicles	17	n.a.	1	-
Pick-up trucks	74	n.a.	81	97
Trucks	63	n.a.	55	31

Source: District administration

Traffic volume

Before the project started a traffic count of the range of 40 vehicles per day was recorded in the Paklay – Kenthao section. There seems to be a significant rise in the traffic volume, however, there were not proper traffic counts made at any point in this road recently. Interaction with the villagers along the road reveal that in this slack season of traffic there is a traffic volume in the range of anything between 60 to 100 vehicles per day excluding, non-motorised means of transport (bicycles, animal drawn carts and hand carts). This indicates a change of traffic volume almost by double. There is also a remarkable change in the composition of traffic. From the heavy truck dominated traffic before the rehabilitation of the road now it is dominated by privately owned smaller units of vehicles like motorcycles, hand-trailer (tractor), Tuk-Tuk and pick-ups. During the peak

season, the villagers as well as the District Officials suggest that, the traffic volume tends to double as much.

Local economy

Like in health sector the rehabilitation of the Paklay – Kenthao road seems to have remarkable and widely spreading impact on the local economy. It seems to have very detrimental effect on the rise of production in different sectors like agriculture, industry, trade and service industry. The changes are remarkable when statistics are compared with those of the pre-project situation. For all these changes, perhaps, the road alone and solely can not be held responsible; however, the road has become the main stimulator for bringing about these changes. The dynamism of these changes, which are rather limited in terms of magnitude, are considered as early indications of long-term potentials that could be harnessed from that area if the service from the road is sustained over its designed life. The different sectors are separately discussed in the following paragraphs.

Agriculture

A comparison of the agricultural statistics (in the following tables) clearly suggests that the pre-dominantly subsistence agricultural production system is transforming to market oriented production in the two districts. Area for cultivation has also increased and crops have been diversifying. Many of the partially cultivated areas and slash-and-burn areas have been converted into paddy fields and cash crops production areas.

Table: Comparison of main agricultural production in Paklay and Kenthao (in 1996 and 2001)

		Area (ha)		Production (ton)	
		1996	2001	1996	2001
Paklay	Seasonal rice	2,339	3,682	8,881	12,955
	Upland rice	1,851	3,397	3,332	7,183
	Maize	400	NA	2,000	10,250
	Sesame	265	NA	159	300
	Peanut	350	NA	420	454
	Cotton	150	NA	150	150
	Mulberry bark	300	NA	390	352
	Mak Deuay		NA		260
Kenthao	Seasonal rice	2,065	2,717	8,068	9,317
	Upland rice	1,750	2,109	3,675	3,798
	Maize	706	1,621	2,826	6,324
	Sesame	149	359	89	252
	Peanut	560	974	840	1,364
	Cotton	3,135	197	3,134	254
	Mulberry bark	383	NA	460	NA
	Mak Deuay	NA	NA	NA	NA

Source: District administration

There appears to be a significant rise in the records of area for paddy field without corresponding rise in production. This is due to the fact that the other cash crops have been actually produced in large part of those agricultural fields classified as “paddy fields”.

Cash crops and livestock

Paklay and Kenthao districts have long been known for the production of cash crop like maize, sesame, peanut and cotton. But, due to lack of reliable market access the production was rather limited. The road has helped improve the market access, and therefore, there is trend of sudden rise in the production of these cash crops. Kenthao has made further steps by producing sweet tamarind for domestic market and for export. Additionally, mulberry bark production has been introduced in the area for the past 5 years and seems to have a prospective long-term foreign market. It is interesting to note that the maize production has increased by 10 fold in Paklay and by 2.2 fold in Kenthao from 1996 to 2002. Based on the areas that appear to be prepared for maize production and the queries made with the farmers the Mission is of the view that this year production of maize will be drastically increased further.

Kenthao has been specially considered as “Lao cotton belt” and always had the potential to produce much more than 254 tons (as in 1996) and the sudden availability of attractive market made the production to jump to 3,134 tons in 2001. In cotton and other cash crop production the current momentum has been achieved due to the farmers’ own initiatives. To sustain and enhance this momentum further it is viewed that GOL should undertake appropriate promotional activities in the areas of keeping the transport system intact, providing agriculture extension services and promoting market.

Livestock raising is part of subsistence livelihood in rural context of Lao PDR including the two districts where the project is located. Livestock is usually considered as source of food, occasional income, labour implements and manure. Over the four-years period there is a decreasing trend of livestock (as shown by the table below) in both the districts. The number of buffalo has decreased from 13,101 heads to 10, 935 in Paklay and from 9,397heads to 5,525 in Kenthao in this period. For other cattle the number has decreased from 9,211 heads to 7,323 in Paklay and from 8,231 to 7,022 in Kenthao in the same period.

Table: Comparison of livestock in Paklay and Kenthao districts
(in 1997 and 2002)

Items	Paklay district		Kenthao district	
	1997	2001	1997	2001
Buffalo (heads)	13,101	10,935	9,397	5,525
Cattle (heads)	9,211	7,323	8,231	7,022
Elephant (heads)	164	116	15	11
Horse (heads)	17	14	2	1
Pig (Heads)	13,081	15,454	6,139	6,902
Goat (heads)	299	140	26	50
Poultry (heads)	119,270	196,769	31,842	111,150

Source: District administration

This change suggests number of things. First, there is a transformation of subsistence agricultural economy to market oriented economy underway. Second, the pasture lands are shrinking and becoming limited due to expansion of cash crop production. Third, there is technological change of agriculture taking place, e.g. hand trailers and tractors are increasingly taking place of animal traction and ploughing. At the same time, the number of domesticated elephants has considerably decreased from 164 heads to 116 in Paklay and from 15 heads to 11 in Kenthao in this period. Domesticating elephant is becoming less and less economical.

On the contrary, the number of poultry has increased significantly from 119,270 heads to 196,769 in Paklay and by 3.5 fold in Kenthao. This suggests a trend of commercialization of agricultural production.

Trade and Industry

Trade in the two districts comprises of sales of agricultural and industrial goods locally and exported and buying of imported consumer goods as well as farm implements. The following table shows the rising trend of sales volumes of local produce, specially the cash crops.

Table: Sale of cash crops from Kenthao in 2000 and 2001

Items	Year 2000 (in tons)	Year 2001 (in tons)	Increase (%)
Maize	4,036	12,060	299
Mak Deuay ¹⁶	96	305	318
Sesame	216	300	139
Cotton	18	150	833
Peanut	56	570	1018
Mulberry bark ¹⁷	283	350	124

These gross volumes also include part of the produce from Paklay. Separate figures for Paklay were not available. Together with the export to Thailand, China and Vientiane the local produce do have a thriving local market as well. The local market is full of key consumer goods and short-supply and shortages of commodities in the market is not known in the recent times.

The market prices of staple food items in Sayaboury municipality, towns of Paklay and Kenthao present no major differences compared to Vientiane prices. The table below shows that pork meat price is about the same in the 3 towns and slightly lower than Vientiane price for similar quality. The price of rice is in the same range. The local people reveal that a few years ago the price difference was significant and used to be generally proportional to the distance from where the good is produced. Seemingly, the transport cost was the main determinant of the differences.

Table: Comparison of prices of some common grocery/food/drink items and service in March 2002

Item	Sayaboury	Paklay	Kenthao
Sticky rice (husked) Grade A (best)	Kip 19,000/kg	Kip 19,000/kg	Kip 19,000/kg
Pork meat	Kip 12,000/kg	Kip 12,000/kg	Kip 12,000/kg
Buffalo meat	Kip 13,000/kg	Kip 18,000/kg	Kip 19,000/kg
Mekong fish	Kip 25,000/kg	Kip 23,000/kg	Kip 25,000/kg
Lao beer (0.75 L)	Kip 8,000/bottle	Kip 8,000/kg	Kip 8,000/kg
Cigarette Red A	Kip 5,000/packet	Kip 5,000/packet	Kip 5,000/packet
Guesthouse room	Kip 30,000/night	Kip 30,000/night	Kip 30,000/night

Source: Local market prices

Improved transport, frequent travels outside the area, availability of electricity, change in production patterns, and accumulated income appear to be the main factors that are

¹⁶ A local fruit that is used for preparing sweets and snacks.

¹⁷ Bark of mulberry trees is used to produce paper pulp and handicraft items.

reshaping the habits, behaviours and consumption pattern of the local people. The taste, fad and fashion of the people in the towns of Paklay and Kenthao present no distinguishable differences as compared to ones in Vientiane Municipality. Housing with new architecture fitted with comfort amenities including *May Dou* (hard wood) furniture appear to be coming up in increasing numbers in Paklay and Kenthao. The availability of electricity has further enhanced the way of life. Television sets some years ago used to be exclusive luxury afforded by a limited few in the villages owning private generator set or a truck battery. Now, colour TV, CVDs and tape recorders have become standard household items for a distinguishable section of the population indicating an increased purchasing power and income. However, for a much larger section of population, specially in the far off located villages from the road this way of life is still a dream.

Industrial goods such as hand-tractors are imported mainly from China and groceries products are imported from Thailand. Local cigarettes and beer are supplied from Vientiane and most of the goods available in Vientiane market can be also found in the local market indicating the area become integrated marketwise with the rest of the country.

In short, the economic atmosphere, as reflected by rising cash crop production, import and export trade and new industries coming up, is vibrant and dynamic. There has been a surge in registered number of shops and business related entities; 609 shops are registered in Paklay and 205 shops in Kenthao in 2001 alone.

Industry

It was hoped that there would be a growth in industries as an impact of the improved road transportation in the project area. Availability of electricity further facilitated quick start of new industries in the area. Development of new industries after 1997 is more noticeable in agro-processing sector, which was but expected. In Kenthao, for example, the number of rice-mills has increased by 6.7 folds from 74 in 1997 to 499 in 2001(Please see the table below). The road makes it easier to transport the paddy to the mills and electricity-powered rice-mills give better quality outputs as compared to the ones powered by mineral oil.

Table: Quantitative Comparison of industries in Paklay and Kenthao districts (in 1997 and 2001)

Type of enterprises	Paklay		Kenthao	
	1997	2001	1997	2001
Rice mill		1,014	74	499
Ice manufacture	3	6	2	2
Noodle manufactory		1	16	
Alcohol distillery			8	38
Cement brick			22	
Jar manufacturing			2	1
Steal window frame			2	
Sewing shop			6	9
Silver and gold smith		8	2	2
Rattan manufactory			2	1
Furniture manufactory	6	8	7	9
Sawmill	2	2		1
Bread factory		1		1
Drinking water bottler		3		
Bamboo factory				1
Charcoal making		1		

Drinking water	0	3		
Bread manufacture		1		
Brick making (Kiln)	3	16		

Source: Districts administration

Breweries and distilleries have increased from 8 to 38 in Kenthao. Rice-based liquor has a good market in the locality and in Vientiane. Bottled drinking water and bread did not exist five years ago in the area. Now, locally produced hot bread and locally bottled drinking water is abundantly available.

Just outside of Kenthao on the way to Paklay, a bamboo factory set up through a collaboration of Thai, Chinese and Lao investors went into production recently. The products are mainly for export. The Paklay-Kenthao road seems to make an axis of industrial chain. This chain is likely to extend further north to Sayaboury once it is connected to the national electricity grid next year.

Growth of industries is not limited to manufacturing sector. In fact, in service sector also there is remarkable change over the last four years. Number of new hotels has been opened during the last couple of years and there is a noticeable enthusiasm in opening new hotels and restaurants in Paklay and Kenthao.

Table: Service industry (as of May 2002)

Type	Paklay	Kenthao
Hotel	1 (30 bedrooms)	-
Guesthouse	6 (85 bedrooms)	6
Bar/discotheke	3	2
Restaurant	6	5
Mechanical repair workshop	-	7
Barbershop	5	4
Tailor	5	9

Besides the above, it is learnt that local and foreign investors aware of the potential of the area are coming forward with investment projects or plans to establish various industries. A Laotian investor from Vientiane plans to build an animal feed factory in the area. The proposition is economically very attractive as Paklay and Kenthao are the biggest producer of maize, the main raw material for animal feed production. Another investor from Vientiane plans to invest in developing a pig farm with some 300 pigs at the beginning. A state-owned company in Vientiane has expressed interest in building a vegetable oil factory in the area. This could be a very viable venture as the raw material such as peanuts, cotton seeds are readily available and the by-products of the production process could be directly sold to animal feed factory. A joint venture of Lao, Vietnamese and Cambodian investors have invested in the plantation of fast growing trees in 25 hectares outside of Kenthao. The plan is to expand the plantation to 300 hectares in the near future and ultimately a paper & pulp factory is to be built in Ban Don Men of Kenthao district by using the trees from the plantation. An important granite deposit is found in the vicinity of Kenthao town and there is a proposal from Vietnamese investors to build a factory for mining and processing of this deposit.

D3.4 Other Indirect Impacts

Electricity and telecommunication

The rehabilitation of the road facilitated development of other public services such as electricity. Before the project started in 1998, Kenthao was connected to Thai electricity grid. In the span of three years, the transmission line was extended from Kenthao to Paklay via Mekong road alignment. The villages along the new alignment are planned to be connected in the near future. The rehabilitated road certainly helped speeding the construction process for extending transmission line. Similarly, as there is increased movement of people and goods and trade is expanding, there is already an increased demand for telecommunication service in Paklay. The existing 21 telephone lines in Paklay have suddenly become far below the local need. In near future 20 more lines are planned to be installed. It is also expected that Kenthao will be connected to Paklay through telephone soon.

Road helped generate other development projects

The rehabilitation of Paklay-Kenthao road indirectly contributed in coming up of other access road projects in the area. PRODESSA, the French supported project, for example, is building 196 Km of rural / village road in the 4 Southern districts of Sayaboury. Without P-K Road as the trunk road these capillary roads providing access to further interior villages would not have become feasible. Also, as mentioned earlier, the villagers of Nakhoun village have improved a 2.5 Km access road from their village to the P-K Road with the financial and labour contribution of their own.

Better access appears to have attracted more projects and development investment in the area. There has been some interest expressed by the Off-Grid Electricity Project, under the World Bank loan to undertake local level development activities in the region.

Hidden Potential for Tourism

The Sayaboury province, particularly the Kenthao – Paklay – Sayaboury – Luang Prabang corridor presents a hidden potential for tourism as there is a lot for nature lovers and wildlife watchers. The province has been well known for the habitat of wild elephants, now domesticated, and home of a large natural teak forest. This land-link corridor presents another short cut to World Heritage City Luang Prabang, one of the main tourist destinations for Thai tourists. Other foreign tourists visiting Thailand could also tremendously benefit from the easier access to visit Luang Prabang.

Employment

The road rehabilitation project had somewhat limited direct impact on generating employment. The construction approach was capital intensive and therefore the role of the workers was to operate machine and equipments and complement the machine's work. However, a rough estimate shows that the construction process of the road generated more than 100,000 person days of jobs, out of which, about half was absorbed by local population.

Indirectly, the road rehabilitation project seems to have significant positive impact on generating local employment. More jobs are being created for the local people by virtue of trade, industry, cash crop production and more development projects coming forth. The early indications to this effect are noticeable. Many houses, guesthouse and factories are being constructed. New hotels, restaurants and nightclubs are being opened generating new job opportunities. Quantification of these job opportunities was not possible during the short fieldwork of the Mission.

D3.5 Undesirable impacts - insignificant

As noted above, the road has been found to have range of desirable impacts on the overall socio-economy of the area. Most people the mission interacted with appreciated these impacts of the road. However, there have also been some comments from the local villagers concerning minor negative impacts that the road has directly or indirectly generated. Disturbance caused by dust produced by the speeding vehicles is one example. Similarly, there is at least one case of complain that the surface discharge from the road has caused loss of fertility of a farmer's paddy field. Yet another example is that of traffic accidents, which have been recorded to have gone up remarkably in the area. Though, no exact number of accidents with location and timing has been monitored. It is viewed that these undesirable impacts, as also elaborately discussed earlier in this document, have been fairly insignificant as compared to the overall positive impacts generated by the road.

While there is economic transformation taking place in the area due to the rise in cash crop production, trade and industry and movement of goods and people there are some unavoidable evils that have come along. Seemingly, the rising prostitution and the associated threat of spreading of HIV AIDS may just be an example. Similarly, there are hidden threats concerning the rapid rise of maize monoculture cash crop in the area. What would happen if the maize market crashed or if insects destroy the monoculture cash crop? There is also some risk appears lurking concerning widened drug abuse. These examples present more of future risks than real impacts of the road and to be treated as warnings.

E. OTHER ISSUES

E1 Partnerships and Coordination Role of the Project

The project process brought together different institutions and entities as beneficiaries, implementation partners and stakeholders. It was necessary for the project to forge a sense of partnership and effective coordination between them for successful implementation. Implementation arrangement of the project was such that the local people, the main beneficiary of the project, did not have a direct involvement in project implementation except for working as labourers through the contractor. In implementation of the HIV AIDS awareness component there were different organisations – Save the Children Australia, Australian Red Cross, Lao Red Cross and Provincial Health Division of Sayaboury, working in collaboration. The comparative advantages of each of the organisation have been applied in developing this component and the Provincial Health Division of Sayaboury played key role in its implementation.

The strong partnership between the MCTPC, one of the beneficiary as well as the executing agency, and the UNCDF, the sponsoring donor of the project, has been particularly evident. The project design had not provided for any role of the civil society in general in the implementation of the project, and therefore, it did not have much of a role in the project.

E2 Externalities

The experience of rehabilitating earlier sections (Luang Prabang – Sayaboury – Paklay) of this road was an important externality that seems to have positively affected the very design of the project. Particularly the institutional framework and implementation arrangement for this project have come as the lessons learnt from the previous sections.

In a near-Kenthao section of the P-K road the alignment ran along with an irrigation channel. The road cross-drainage at this section was designed to discharge to this canal. The project authority of the irrigation channel objected to this design, and therefore, the road cross-drainage was redesigned to discharge to a private paddy field as per the recommendation of UNCDF Technical Review Mission (A. Cittati, May 1999). The irrigation channel became such an external factor that the project had to be adopted with it by re-designing the cross-drainage discharge to the nearby paddy field. And now, there is an adverse impact on the productivity of a small patch of a paddy field due to sediment deposition. This case is also dealt in section D.3.1 and building a small pond at the cross-drainage outlet has been recommended. It is the MCTPC/DCTPC with who remains the future responsibility of the road, and therefore, should also be for building this pond.

PRODESSA is a rural development project (January 1999 – December 2002) that is building / upgrading 196 km of rural roads in four of the southern districts of the Sayaboury province. Rehabilitation of P-K Road has been an important factor that positively influenced the realisation of the PRODESSA. Also, PRODESSA's accomplishments do have strong implications on the degree of attainment of the development objectives of this project. Thus, there exists a vice-versa interrelationship between these two projects.

E3 Critical Issues

Sustainability of the physical amenities created by the project is the most important issue that needs to be critically looked into. Two roads, Sayaboury-Paklay and Paklay-Kenthao, and three bridges along these roads are the physical amenities created by the project. Maintenance of all the national road network (NRN) and local road network (LRN) is a responsibility of Department of Roads, MCTPC. The DoR is currently implementing Road Maintenance Programme being funded through assistance from International Development Association (IDA), the Nordic Development Fund (NDF) and the Swedish International Development Cooperation Agency (SIDA). The RMP in two phases is planned for a period of nine years from 2001 to 2009 with indicative cost of US \$ 116 million. Both the sections of the road under this project are part of the national road RN 4 (earlier Route National 2A) and therefore are eligible to be included in the RMP. In fact, Sayaboury-Paklay section has been already included in RMP and Road Administration Division (RAD) of the DoR has confirmed to the Mission that the Paklay-Kenthao section also will be included under RMP from the beginning of the forth-coming fiscal year that is October, 2002.

In actual implementation of the maintenance activities it is the DCTPC (Division of Communication, Transport, Posts and Construction) at the province, which has the day-to-day responsibilities. Currently the Sayaboury DCTPC has strength of 42 staff members, 24 of them with technical background. In addition, each district has 3 to 4 technical personnel in the district roads office. The DCTPC Sayaboury and district roads offices in Paklay and Kenthao do have some experience of undertaking road rehabilitation and maintenance civil works. Hence, it is viewed that, as there will be adequate budgetary allocations from MCTPC/DoR/RAD, both the sections of the road will be maintained through RMP for the next seven years. The RMP also has aim to develop national and provincial capacity for maintenance of NRN and LRN beyond 2009.

F. KEY FINDINGS AND RECOMMENDATIONS

F1 Key Findings and Lessons Learnt

In overall the project is assessed from three perspectives – the process, the outcomes and the impacts. From this three-façade assessment various issues have been identified as key findings and the lessons learnt thereof.

The Process:

The Project Design

In the background of designing this project there was a noteworthy experience of funding for rehabilitating earlier section of the road and continuity of funding became an impetus for this project. The evaluation mission identified some weaknesses in the project formulation. There was a mismatch between national capacity building objectives of the project and implementation arrangement under the particular institutional framework proposed in the project. The roles of different entity involved in project implementation were defined through different provisions under the project design, e.g. TORs for different entities. Practically, the executing agency's role was limited to facilitator, co-ordinator and monitor, which did not very much help achieve the national capacity building objectives. Secondly, defining the scope of the road in the project to limit within Paklay to Kenthao and not to reach to Thai border was not really compatible with one of the project objectives of developing the corridor into a "land bridge for neighbouring countries". In the project design some aspects in implementation arrangement remained unclear specially the application of UNDP Laos NEX approach (but following UNCDF procedure) and hiring service of a contractor in accordance FIDIC General Conditions of Contract as per the AMCD for LCB. The AMCD was developed in the special context of civil construction works under loan. In the project formulation revising and re-adapting of this document should have been recommended to make it more suitable for applying to donor supported projects with broader focus including capacity building. In particular TOR given to the engineering design and supervising consultant did not adequately reflect the needs of the project objectives and there was some ambiguity regarding their overall accountability.

Lesson learnt: In project formulation a) arrangement of roles of different entity should fully match with the purpose and objectives of the project; b) defining scope of the project should be compatible with the project objectives; c) appropriate adaptation of FIDIC General Conditions of Contract to suit with the characteristics of the project contributes to project economy, efficiency and better attainment of the project objectives;

Performance of the consultant and the contractor

The evaluation mission finds that the engineering design and supervision consultant had less experience and competency than it was necessary for road works in such natural and institutional setting as present in the project context. Their weak performance is found reflected in outputs like the design of the different components of the road, quality of the reporting and in the overall project output. Therefore, it is viewed that the performance of the consultant was rather weak. The performance of the contractor 13 South Pa Phao JV was very poor at the beginning causing a significant delay in civil works production, however they gradually seem to have improved. In overall assessment their performance, considering the fact that one of the project objectives was to strengthen contractor's capacity, was generally satisfactory (fair) except for the initial

delays in timely delivery of civil works. For the delay the contractor was ultimately penalised and penalising seemed to work for expediting the civil work production.

Lesson learnt: a) It is necessary to take a good care in selecting a consultant (and defining a TOR for them) for the given type of project. b) Strictly following conditions of contract and penalising where deemed necessary may help achieve efficiency.

Monitoring

As explained earlier in this document the project had a system of monitoring in different tiers. In the context of overall performance of the project the UNCDF's role in monitoring was rather crucial. It was so also because of the kind of institutional framework under which the project was implemented. In the overall project process the consultant had a very key role to play and for all practical purposes their performance was directly accountable to UNCDF. As the consultant's performance from the very beginning did not appear to be strong enough, this should have been taken note of by UNCDF and appropriate measures should have been taken. It is also to be noted that UNDP/UNCDF Laos had more of a day-to-day regular process monitoring and facilitating role, whereas UNCDF HQ had assumed the role of monitoring technical quality of outputs through Technical Review Missions. Monitoring at the UNCDF level, especially the Technical Review Missions did not exhibit such effectiveness to recommend or to take decisions necessary for corrective measures. It is also to be noted that there was a high turn-over of the overseeing officers at the UNCDF/UNDP Laos. There were changes of four individuals as the overseeing officers over the life of this project. This also seems to have partially contributed in making the UNCDF monitoring less-than-effective in overall.

Lesson learnt: For the given kind of capital-intensive civil construction project it is necessary to have a strong and effective monitoring system in place.

Outcome:

Project achievement

The **overall performance of the project** and particularly in delivering the physical infrastructure has been quite **good** (in a scale of Poor - Fair - Good - Excellent). Repaired Sayaboury-Paklay road, rehabilitated Paklay-Kenthao road, a major bridge and two small bridges are the main physical infrastructure that the project has delivered. The quality of these infrastructures is at par with what was envisaged during project formulation, though there was a delay of about five months in totality in completing the civil works. The project has performed very well in achieving most of the immediate objectives. And there are early indications that the project has contributed significantly towards achievement of development objectives.

The evaluation mission holds the view that the project achievement was slightly weak in aspects of national capacity building goals, though it is something difficult to measure. There are inadequacies in providing training to the executing agencies. The institutionalisation of the implementation arrangement as proposed by the project has not taken place to the extent that one would have expected. For example, there are not any specific policies, generic forms or bidding documents developed through the project's experience, which could be used in other projects. By virtue of participation in trainings abroad and by being involved in the project facilitation there is some limited capacity developed within the executing agency, but, given the objective of the project, this is not viewed as adequate.

Lesson learnt: Capacity building is achieved more effectively not by letting the subject watch the way things are done but by making the subject do it. Therefore, for the project of given kind, there should be a progressively increasing role for executing agency in project management.

Impacts:

Sustenance and enhancement of the desired impacts

In the evaluation mission's findings the project is very successful in attaining the desired impacts. There is a significant decrease in vehicle operating costs as reflected by the passenger fair and freight. This was obvious as also indicated by a decrease of 63% in roughness index. The accessibility in terms of time taken to commute within the road corridor has tremendously improved. There are ample indications of positive socio-economic changes taking place. The question now is, therefore, how to sustain and enhance these socio-economic impacts.

There are two issues to be addressed. First issue is about sustaining the transport infrastructure including P-K road and other rural roads in the project corridor. For addressing this there is a need for the GOL to take the responsibility by allocating adequate funding and appropriate institutional arrangement. The P-K road has been included in the Road Maintenance Programme of the MCTPC/GOL and for the next few years its maintenance is taken care of. However, for keeping the transport infrastructures serviceable for the whole of the designed life it is necessary that the capacity of DCTPC and District Roads Office is improved. Seeing the current level of government allocation for road maintenance and weak institutional base at the local level this is a critical area to be addressed.

Second issue is that of the bridge over Nam Heuang (the river at Thai boarder) and the completion of 196 km of rural / village roads by PRODESSA. These will give a bust to the sustenance and enhancement of the positive impacts that are beginning to emerge. In this however, the link road of 6-7 km length, in a state of an earth-track, between Kenthao and the Nam Heuang bridge site is a critical bottleneck. Therefore, it is necessary that the Kenthao - Nam Heuang bridge road be rehabilitated in near future. It is only then that there will be a direct land-to-land transport link from Thailand to Luang Prabang and further North of Laos to China and Vietnam, the corridor serving as a "land bridge" between neighbouring countries.

F2 Recommendations

On the basis of the findings and analysis the evaluation mission has the following key recommendations to make.

It is strongly recommended to MCTPC/GOL that the Kenthao - Nam Heuang bridge road be rehabilitated in near future.

It is also recommended to the MCTPC/GOL **to adopt** a more concrete **strategy** with a view to enhance its institutional capacity for project management at the central as well as provincial and district level. For this MCTPC will need to develop an action plan.

At this juncture of project completion there are two options existing for the project partners – UNCDF and MCTPC/GOL. One is to declare the project completed with an exchange of recognition of successful partnership by way of an **exit strategy**. The other option would be to keep collaboration continued for considering the final (last) phase of the long series of ongoing collaboration. This last phase may be designed for undertaking the rehabilitation of the last section of Kenthao-Nam Heuang with a focus in developing provincial and district level capacity in road sector development. Considering the following factors the mission is of the view that the second option might be preferable to both the project partners: i) UNCDF's long involvement in development of this transport corridor; ii) it's priority focus on decentralisation; iii) need for sustaining and enhancing the positive impacts of Paklay-Kenthao Road; iv) GOL's desire (and need of funds) to build this Kenthao-Nam Heuang section of road and v) need of decentralisation in road sector management in LAO PDR.

Finally it is recommended that both the project partners, donor UNCDF and beneficiary MCTPC/GOL, learn the lessons (as mentioned earlier) from the experience of this project, specially in aspects of project formulation and effective monitoring.

Annex I: Terms of Reference for the Evaluation

UNITED NATIONS CAPITAL DEVELOPMENT FUND

TERMS OF REFERENCE

FINAL EVALUATION OF PROJECT LAO/98/C04

REHABILITATION AND IMPROVEMENT OF THE PAKLAY ROAD

Country:	LAO PDR	Total Project Cost:	US\$ 4,609,954
Full Project Number:	LAO/98/C04	Financing:	
Project title:	Rehabilitation and Improvement of the Paklay-Kenthao Road	Government:	US\$ 438,000
		UNCDF:	US\$ 4,171,954
Estimated start date:	January 1998		
Actual start date:	03/01/1999		
Estimated completion date:	31 August 2000		
	15 January 2001		
Actual completion date:			
(excluding defects liability period)			
Sector:	Transport and Communications		
Sub-sector:	Road Infrastructure		
Govt. Executing Agency:	Ministry of Communications, Transport, Posts and Constructions (MCTPC)		
Date of the Mission:	April 2002		

PART ONE:

GENERAL TERMS OF REFERENCE

1. GENERAL EVALUATION FRAMEWORK

1.1 Project Background

The Lao People's Democratic Republic (Lao PDR) has a population of about 7.5 million growing at 2.2% a year. It is designated as a LDC and is currently ranked 131 in the UNDP Human Development Index (HDI), which places it in the Low Human Development category. The HDI value in 1999 is 0.476 (It was 0.402 in 1990), with a GDP per capita PPP of US\$ 1,476, a life expectancy at birth of 51.9 years. In literacy and GDP indicators, women score significantly lower. Female adult literacy is 31.7% compared to male adult literacy of 63%, and the female GDP per capita (PPP) is US\$ 1,169 compared to the male GDP per capita (PPP) of US\$ 1,774. The UNDP Gender-related Development Index (GDI) ranking in 1999 was 119.

The project is situated in Sayaboury province in the northwestern part of the Lao People's Democratic Republic. The province stretches from north to south for approximately 300 km and borders on the west and south with Thailand, to the east with the Mekong River, and to north with Oudomxay and Luang Prabang Provinces.

Paklay and Kenthao are the southern end of the province and the road is the last link of national road 2A to the Thai border, of which the section from Luang Prabang to Sayaboury and Paklay were build under previously UNCDF grants in 1987. In May 1996, the government of Laos asked UNDP/UNCDF for assistance in completing the road between Luang Prabang and the Thai border. The rehabilitation of the Paklay-Kenthao road is the last phase of a project started in 1986 which linked Luang Prabang, the former capital of Laos, with Sayaboury town and Paklay (over 240 km in total). This project consisting of 57 km all weather gravel road section will facilitate communication between the isolated province of Sayaboury and the rest of the country. It will also provide a link between the Province, Thailand and to a certain extent China.

1.2 The Project

Road construction in rural areas can have an enormous positive impact on income, trade communications, health, education and generally the quality of people' life. The rehabilitation of the Paklay-Kenthao road is in line within the objectives plan for improving the transport infrastructure with a bias towards Northern Areas and of opening up the southern part of Sayaboury Province. The completion of the remaining section of the road from Paklay to Kenthao, on the Thai border is likely to have resulted in substantial benefits for the people of this area and for the development of the country as a whole as the route links to the rest of the national network and particularly to Luang Prabang, the earlier capital of Laos. The economic assessment of the project indicates that the project has a very respectable rate of return which should add value to the Laotian economy.

The Paklay to Kenthao link is the last section of the route National 2A, the Luang Prabang-Sayaboury-Paklay-Kenthao road, of which the stretch between Luang Prabang and Paklay has already been rehabilitated. The project was fully integrated with the UNDP rural Development Programme which focused on community development. On a more technical point of view, the project has constructed a permanent gravel road built in accordance with NTS recommendations. The gravel platform is about 7 meters wide, the maximum longitudinal slopes are 8%, lateral ditched are about 1.50 meters wide, the horizontal alignment is roughly following the previous road with few exceptions, including 24 km section that was the remnant of an old abandoned trail. The minimum curve radiuses have been widened and increased and some sections have been

realigned to straighten them. Longitude slopes have been reduced and distances to the Mekong River have been increased. One large bridge across the Mankai River has been built.

1.3 Project Objectives, outputs and Activities

(i) Development Objectives

The Development Objective of the project as stated in the project document is as follows:

The project will have a positive impact on the government's objectives, under the Fourth Five Year Plan (1996-2000), of improving the country's trunk system and of creating international transit corridors to diversify the country's access to the sea and to promote its role as a land bridge for neighboring countries. In addition, the government has outlined a policy of stimulating the growth of its private sector and the project will contribute towards this objective by strengthening the road construction industry through increased business opportunities and transparency in the tendering/bidding process.

(ii) Immediate Objectives, Outputs and Activities

The Immediate Objectives of the project as stated in the project document are as follows:

Immediate Objectives 1

Improved economy and communications within the Sayaboury Province by: (1) decreasing vehicle operating costs by about 40%;(2) improving accessibility; (3) increasing the number of local enterprises, markets and exports; and improving the Government's capacity for road maintenance.

Output 1.1

Rehabilitation of 39 km and reconstruction of 24 km of the Paklay-Kenthao road to an all weather gravel road standard.

Output 1.2

The UNCDF mechanized brigade is overhauled.

Output 1.3

Repair of the Sayaboury – Paklay section of the Luang Prabang – Kenthao road.

Immediate Objective 2

National capacity in the road construction sector will have been strengthened by (1) improving the institutional capacity of the Ministry of Communications in contracting and managing private sector services; (2) providing an enabling environment for the development of national contractors through the adoption of transparent bidding procedures and of bidding documents consistent with international established standards.

Output 2.1

Project manager and other selected PCU staff trained in the preparation and use of tender documents, pre-qualifications, bid evaluation, contract supervision and monitoring techniques.

Output 2.2

Additional business opportunities available for local contractors.

Immediate Objective 3

Potentially negative health and environmental impacts of the proposed improvement and associated activities minimized by establishing linkages with other initiatives and partners and ensuring preventive actions in the province.

Output 3.1

HIV/AIDS awareness programme in villages and amongst construction workers.

Output 3.2

Strategy developed for minimizing negative environment impacts of the road particularly relating to forestry.

1.4 Institutional Framework

The project has been executed under UNDP's National Execution (NEX) procedures by the MCTPC through its Department of Roads and a Project Coordination Unit (PCU) headed by a National Project Director (Director General of the DoRs). As specified in the terms and conditions of FIDIC, the UNDP Country Office processed the management of the project funds through direct payments, with an exception for the funds related to the administrative support for the PCU.

1.5 Project Status

The major activities, which were carried out during the course of project, are summarized as follows:

Engineering surveys and designs for the rehabilitation and reconstruction of 33 km together with new alignment of 24 km of the Paklay-Kenthao road were completed. The Sayaboury – Paklay section of the Luang Prabang – Kenthao road had been repaired successfully. In addition, some stretches of the road passing through villages were paved to minimize potential dust health hazards. The UNCDF mechanized brigade has been overhauled and the related equipment auctioned off in June 2000.

The Sayaboury – Paklay road was repaired. The contract was awarded to SNCLP to undertake the road repair works (regravelling, grading, repairs and protection works of selected embankments' slope). 8 km of roads passing through villages from the section of Sayaboury-Paklay were paved. The villagers contributed to the project along the road by providing local material (gravels) or working as volunteers.

The construction works was carried out by a local contractor, namely Joint Venture 13 South Savanakheth Road-Bridge Construction and Pa Phao Construction Company, selected through a competitive bidding process and executed under FIDIC General Conditions of Contract. The contract was placed under the supervision of an international consulting firm. Messrs. Carlo Lotti & Associati was appointed as the Engineer under FIDIC conditions by the MCTPC.

Capacity building training courses were organized for the Project Coordination Unit. On-the-job trainings were delivered to the engineers directly involved in the project management from the DoR, Division of Communication Transport Post and Construction (DCTPC) of the Sayaboury province, as well as to consultants and contractors on various aspects related to project execution and management in order to enhance their technical and managerial capacities. In addition, the Project Manger was sent to Australia for 20 weeks for English courses and three months to Indonesia for an engineering and design-training course. The NPD and some senior staff from the DoR attended a course on management and road maintenance in the UK. The HIV/AIDS awareness programme was carried out in villages along the road and amongst construction worker. This activity was contracted out to Save the Children Australia, Australian Red Cross and Lao Red Cross.

Work during Defect Liability Period:

The Defect Liability Period (DLP) lasted from 15 January 2001 to 15 January 2002. The contractor has not completed some outstanding tasks and is still responsible for topping up the road surface in some stretches in order to meet the standard thickness requirement. It is expected that all outstanding work will be completed by 15 March 2002. Once the outstanding work is inspected and validated, fifty percent of the retention money will be released.

During the DLP, the heavy overflow of water on the road surface which seems to be partly due to a design problem damaged one stretch of the road. More pipe culverts should have been put in to facilitate the release water at this spot. The contractor claims that the construction work was carried out in accordance with the design and supervision of the Engineer (Lotti). Nevertheless, the Department of Roads has requested the contractor to repair this spot in order to restore the road to its original condition, which was done recently.

1.6 Difficulties Encountered

The project encountered some difficulties though. Due to budget constraints, the Resident Engineer had no alternative but to review the designs and the calculation of the bill of quantity, which delayed the implementation of the project for a short while.

The internal communication within CPU was rather weak, a problem that was identified during the Technical Review Mission (TRM) of May 2000. There was some sort of confusion in terms of role and responsibilities between the project management team and engineering supervision team.

The managerial capacity of the contractor was similarly weak to the point that the contractor run short of diesel to operate the machinery which accordingly delayed the construction work on the ground. The Technical Review Mission commissioned by UNCDF pointed out that the contractor's superintendence was at some point not efficient and problematic. Corrective actions were taken almost immediately. Similarly, the TRM found out that for some sections of the road, execution drawings have never been completed. The TRM pointed out that the construction work carried out by the JV Company was far behind the targeted schedule for May 2000. At that time, only 37% of the planed work was achieved though the work should have been near completion.

2 PURPOSE OF THE EVALUATION

The purpose of the final evaluation is to assess the overall project performance and its potential socio-economic impact as set in the project document. The evaluation will concentrate on the quality of the physical infrastructure delivery. The evaluation team will assess the following:

- Overall performance of the project in delivering outputs, achievement of the immediate objectives and likelihood of achieving the development objectives.
- Validity of the initial project design and relevance whether the project design was feasible at the given context.
- Implementation arrangements and their suitability for the successful attainment of the project objective including the consistency, or lack thereof, between the policies of the DoR/MCTPC including performance of all management parties involved and monitoring and evaluation arrangements.
- Overall socio-economic impact of the project in the two districts with reference to the socio-economic baseline data collected by the project.
- Technical quality of the constructed road and bridge.
- Performance as well as capacity assessment of the international consulting firm Lotti and national contractor JV.
- The overall environmental impact of the road project on its surroundings.
- Exit strategy with a special focus to the current ownership, operation and maintenance management under the DCTPC of Sayaboury.
- Critical lessons learned about the project design, implementation and management; and make recommendations to improve them.

- Compliance with the requirement of the Project Document/Financial Agreements as well as per the rules and regulations of UNDP/CDF.
- Input provided by the various partners.
- Sustainability of the project's outputs and impacts.
- Strategy the government needs to adopt in the future with the donors for such grant projects.
- Follow-up on the recommendations of the mid-term evaluation mission and recommendations of the technical review missions.

While providing all stakeholders with an external, objective assessment on the performance of the project, the main findings or conclusions will help UNCDF, UNDP and the Government of Lao PDR understand key issues and problems that need to be addressed, as well as strengths that need to be further enhanced, in future work in these sectors.

3. EVALUATION METHODOLOGY

The mission will be carried out in the following way:

3.1 HQ Briefing

A briefing of the team-leader at UNCDF headquarters. Relevant documentation will be provided to the team members prior to the mission.

3.2 Review of relevant project documents and files

The evaluation team will undertake a thorough desk review of all project documentation and reports available, in order to familiarize itself with the latest project activities and results. The available documentation includes but is not limited to the following:

- i. Project document
- ii. Project Reports – Quarterly Reports, Annual Progress Reports, Audit reports, Terminal report
- iii. Inception Report
- iv. 2 Technical Reviews of 1999 by Cittati
- v. Technical Review of June 2000
- vi. Aide Memoires related to Bettina Furhman's (Programme Manager) missions.
- vii. Normand Lauzon's report to Laos on the Internet who refers to the project.
- viii. UNCDF Strategy for Policy Impact and Replication
- ix. Taking Risks, UNCDF (September 1999)
- x. Taking Risks: Background Papers. UNCDF (September 1999)
- xi. UNCDF Policy on Poverty Reduction & Local Governance: The Way Forward.

3.3 Establishment of Evaluation Methodology and Workplan

At the beginning of the mission, the team leader should consult with the other team members and propose a detailed methodology on how to proceed with the evaluation; i.e. the feasibility of sample surveys, participatory learning and action/participatory rural appraisal (PLA/PRA), focus-group discussions, etc. The team leader and the team members should produce on the 2nd day the Evaluation Methodology and Workplan, outlining the methodology to be used for the review and the workplan. This should include the tasks to be performed by the different team members, a time schedule for the mission and a table of contents for the evaluation report.

3.4 In-Country Consultations

The evaluation mission will be briefed on the project, and will undertake a thorough review of all provided project documentation and reports to get acquainted with the latest project activities and results, as well as UNDP and UNCDF mandate, policy, products and practices. The staff of UNDP/UNCDF in Laos and Ministry of Communications, Transport, Posts and Constructions will assist the team.

Field trips and site visits to conduct the evaluation will be planned in consultation with UNDP, Government of

Lao (PDR) and project staff, to meet with the relevant project-related authorities and the beneficiaries/users, and if possible, population groups outside the project areas for comparison

purposes. The mission will maintain close relation with the DoR, DCTPC Sayaboury, UNDP/CDF, which will facilitate the work of the mission and guide it in its official contacts with the Government and other necessary counterparts. The mission will undertake site visits to the road and bridge to conduct sample surveys and interview the relevant government authorities and agencies (DoR, DCTPC, NGOs, UNDP/CDF and others) as well as the local people living along the road corridors. The mission will refer to the socio-economic baseline survey data conducted by Royds, 1997. The mission will conduct interviews with project stakeholders [central and local government representatives including the Ministry of Communications, Transport, Posts and Constructions staff; community representatives (men and women); project indirect beneficiaries (men and women)].

The data gathered should be analyzed to support the evaluation report. The evaluation should be done in a participatory manner as much as possible and where feasible data should be gender disaggregated. The evaluation should follow the structure of the project objectives and, more specifically, the project outputs.

3.5 Drafting of Aide Memoire

On the basis of their findings, the mission should draft an Aide Memoire, which will be shared with key stakeholders (Govt. of Lao (DPR), UNDP/UNCDF in Lao (DRP) and HQ, and other relevant partners) prior to the mission "wrap-up" meeting, where stakeholders can comment on the missions' findings.

3.6 Mission Wrap-Up meeting

The Mission Wrap-Up meeting is held and comments from participants are noted for incorporation into the final report. The UNCDF PO should record the minutes of this meeting for submission to the mission, all relevant stakeholders, and UNCDF HQ.

3.7 In-country Debriefing session with the UNDP Resident Representative and the Govt. of Lao (DPR) focal point

3.8 Debriefing of UNCDF HQ in New York by the team leader

3.9 Finalization of the Report

4. ORGANIZATION OF THE MISSION

4.1 Composition of the Mission

The Final Evaluation is to be conducted by a team of 3: a Roads Engineer/Infrastructure expert, a Socio-Economist expert and a Representative from the Department of Roads within the Ministry of Communication, Transport, Post and Constructions.

The team Leader should have extensive a substantial experience in road engineering in South East Asia, preferably in Laos. S/he should have excellence knowledge on technical quality assessment and construction management. S/he should be able to assess the appropriateness of such feeder road in the context of Lao' s overall socio-economic development. The team leader should be familiar with participatory techniques in project evaluation and have skills to coordinate and manage the contribution of the evaluation team members.

The Socio-Economist Expert should have a substantial expertise in socio-economic aspects of infrastructure development projects, with a special focus on road projects. S/he should have extensive experience in agricultural and rural development of the country. In addition, s/he should be a Lao national so that s/he has a fairly good knowledge of development situation of the country. S/he will support the team leader in his mission and will essentially focus on evaluating the socio-economic impact of the road on the local populations as per the key performance indicators described in the detailed Terms of Reference section D. III (Impact).

A Representative from the Department of Roads should be a senior road engineer with working experience in road construction management and technical quality monitoring in Lao PDR. In addition, s/he should also have a strong networking and coordinating skills.

4.2 Duration of the Mission

The mission will be conducted in May 2002 for duration of about 22 days including 5 days report writing and 15 days of field work. The duration of the mission should take into account: a 1 day briefing and orientation period at UNDP Laos, 2 days for desk study and analysis, 6 days for field visit, 3 days for meeting with DoR, MCTPC, DCTPC Sayaboury, CPU and other relevant stakeholders, 1 day for wrap-up meeting at DoR and 2 days for report writing in the country.

The assignment will be undertaken from May 7th to 23rd May 2002 including traveling days; fieldwork will begin on 7th May 2002 and will be completed by May 22nd, and the draft report should be available by May 30th 2002.

Specifically, the schedule is as follows:

April 26th, 2002: Briefing and orientation of 1 day with UNCDF headquarters over the phone for the team-leader;

May 7nd, May 9th 2002, 3 working in orientation and desk review.

10-17 May 2002: in-country evaluation work.

18-20 May 2002: Desk Study and Aide Memoire preparation and Evaluation Mission Wrap-Up meeting;

21th May 2002: Debriefing with UNDP and government counterparts.

1 day debriefing with UNCDF by the mission leader over the phone (date to be arranged);

5 days to incorporate feedback received during debriefing (NY).

5. Reporting

The Consultants shall work as a team and report to UNCDF Evaluation Unit. In the field, the mission should report to the UNCDF representative (i.e. the Resident Representative UNDP or his appointee).

The detailed **Evaluation Methodology and Workplan Proposal** should be submitted on the second day of the mission to the UNCDF Programme Officer and shared with the Evaluation Unit. This is a brief proposal regarding his/her understanding and interpretation of the ToR and overall evaluation. This will also include the proposed methodology and break down of the work programme and technical requirements.

Near the end of the mission (upon completion of information gathering and assessment), the mission should draft an **Aide Memoire** briefly stating their key findings. Ideally, time should have been allowed for discussion of findings in the field with the project beneficiaries during the in-field consultations.

The Aide Memoire becomes the basis of discussions at the **Evaluation Wrap-Up meeting, tentatively scheduled for May 19th, 2002**, to which representatives of key stakeholders are invited. UNCDF HQ should receive a copy of the Aide Memoire as well prior to the meeting. At the Wrap Up meeting, the mission should discuss its main findings and recommendations with the UNDP Resident Representative, government authorities, and other project partners concerned. While the consultants are free to raise any subject relevant to the evaluation of the project, the mission is not empowered to make any commitments on behalf of UNCDF.

The **Minutes of the Evaluation Wrap-Up Meeting** is to be prepared by the UNCDF Programme Officer and submitted to the mission team, all relevant stakeholders, and the Evaluation Unit at UNCDF HQ

The comments of the Government, the UNDP Resident Representative, and other relevant stakeholders on the Aide Memoir and at the Wrap Up meeting should be incorporated or

addressed appropriately in the **Draft Evaluation Report**. The mission should submit the Draft Evaluation Report by **May 30th, 2002** after completion of the Evaluation Wrap-up meeting. An electronic version of the Evaluation report, including the "summary of project evaluation", (in Microsoft Word 6 format) should be submitted to UNCDF headquarters for review and comments. The team leader will conduct an Evaluation Debriefing of UNCDF HQ at a date to be arranged.

After the Evaluation Debriefing, the team leader should then finalize the **Final Evaluation Report and Summary** as per the format outlined in Part II, including the Evaluation Summary, which should be prepared as per the outline below. The team leader should also prepare an **Evaluation Follow-Up Matrix** which contains all the main recommendations, proposed actions, responsibilities and timelines.

Ten bound copies and an electronic version of the report containing summary, matrix and relevant annexes should be submitted to UNCDF-HQ. UNCDF-HQ will share with the Lao (DPR) Country Office for distribution to all parties concerned.

While the report outline must be respected, the detailed elements and sub-headings of each section are the responsibility of the mission. Nothing in these ToR should be interpreted as restrictive.

The mission should ensure that all relevant points are included, fully explained and supported with appropriate annexes where applicable.

The report should be prepared using Microsoft Word and according to the guidelines in Annex 2 (a copy of the report on diskette should accompany the report). The government and UNDP Resident Representative are expected to forward their comments on the draft evaluation report to UNCDF, based on discussion with the relevant evaluation team.

By the end of the mission, ten bound copies of the final report should be submitted to UNCDF within two weeks of the mission being informed either of UNDP/CDF acceptance of the draft report, or of changes to be made therein, as requested.

6. MISSION COST AND FINANCING

The cost of the evaluation team should be financed by LAO/98/C04 under BL: 16.01.

If expressly agreed, the mission may claim 50% fees upon submission of the draft report to UNDP/CDF. Final payment of all outstanding claims and fees due will be paid only upon acceptance by these parties of the final report. All claims must be accompanied by supporting documentation. A penalty for late presentation of the report may be included in the contract with the mission.

PART TWO: DETAILED TERMS OF REFERENCE

1. CONTENT OF THE EVALUATION REPORT

The evaluation report should include the following items:

- i. Table of contents
- ii. Executive Summary, 2-3 pages providing an overview of the report, and a summary of the main findings and recommendations.
- iii. List of abbreviations
- iv. Project data sheet, providing key facts and figures on a single page
- v. Introduction to the Evaluation, briefly stating the purpose of the mission, composition of the evaluation team, a schedule of activities carried out, the methodology used, and the structure of the report.
- vi. Chapters as per sections 2 outlined below
- vii. List of persons interviewed
- viii. List of documents and references used in the evaluation
- ix. An **Evaluation Summary**; a 4-5 page annex to the main report. This is distinct from the Executive Summary, and should serve as a self-contained summary that may be read without reference to the main report. The evaluation summary should follow the this outline:
 - a. Basic project data
 - b. Background of the project
 - c. Description of the project
 - d. Purpose of the evaluation
 - e. Findings of the evaluation mission
 - f. Assessment of the project design
 - g. Policy implications and lessons learned
 - h. Recommendations of the mission
 - i. Members of the evaluation team
- x. An **Evaluation Follow-Up Matrix**; a matrix containing all the key recommended actions, and indicating the responsible parties and timelines, which will be used by the UNCDF Programme Manager as a monitoring tool for compliance.

UNCDF will provide examples of Evaluation Reports and Summaries and the Evaluation Follow-Up Matrix to the team leader.

2 EVALUATION REPORT CHAPTERS

A. INTRODUCTION AND BACKGROUND

The evaluation report should include a brief description and overview of the project from inception to the present, focusing on changes that may have occurred since inception. It should indicate briefly:

The country and sector; the situation existing at the time the project started; selected data to illustrate prevailing conditions in the areas targeted by the project; the origin and evolution of the project. The project rationale; the substantive approach; the development objectives; immediate objectives; expected results (outputs); activities; project inputs; implementation arrangements; costs and financing, including the Government's funding commitments; plan of operations; and arrangement for monitoring.

B. PROJECT DESIGN AND RELEVANCE

Design

- i. Assess the approach adopted to solve the problems identified in the project document. Is it the most effective? Comment on the technical options chosen; i.e. labor-based instead of capital-intensive.
Comment on the consequences the technology choice will have on the overall development objective.
- ii. Are the objectives and outputs well defined, realistic and quantifiable?
- iii. Are beneficiaries and users of project results properly identified?
- iv. Assess the planned sequence of implementation of activities vis-à-vis supporting implementation arrangement such as allocation of funds (amount, channel of disbursement, accountability), and staff requirements. Establish the extent to which achievement of the activities envisaged is commensurate to logistical arrangements (vehicle and office equipment).

Relevance

- I. Assess the relevance of the projects and their strategy given the current context. Are the objectives realistic and appropriate given the current context?

C. STATUS AND PERFORMANCE IMPLEMENTATION

Describe all facts that reflect the status and performance of implementation.

I. Status of Input Delivery

The factual delivery of project inputs and implementation of project processes versus the planned inputs and processes should be documented, describing the procedures, activities, and timing, of the different project stages; covering briefly formulation and inception, but focused mainly on implementation, including the operational processes therein. In this respect, the quality and timeliness of inputs of the various parties to the project should be assessed. The evaluation should assess factors, both internal and external to the projects, which have contributed to or limited the efficiency of input delivery.

In addition, the following information should be documented and assessed:

- **Financial Information:**

Financial contribution of each partner, total disbursements and utilization of funds; including related, complementary support, such as the Government of Laos funding of road management. This should include a discussion of the procedures involved and the timeliness of funding.

- **Equipment:**

Review the inventory of project-related equipment that was procured via the project, construction materials, spare parts and facilities (number, type of equipment, location, etc.); including an assessment of the quality of the equipment and tools procured, appropriateness of construction materials, timeliness of delivery, and actual use on site, their working condition, procurement methods, availability of service and repair, contracting systems and documents, and the quality and adequacy of their maintenance, operation and related loan agreements and credits.

II. Programme Management and Systems Performance

This section of the report should provide an evaluation of the means, processes and procedures used to implement the project, and its overall performance in terms of economic efficiency, equity, transparency, timeliness, participation and effective management. This includes, specifically,

assessment of the implementation arrangements, management systems, the administrative procedures, and overall teamwork of the project. The mission should highlight and describe any changes in the actual mode of implementation compared with that specified in the project document.

a. Implementation Arrangements

1. Assess the implementation arrangements in terms of its effectiveness and efficiency for project management.
2. Assess the respective roles and responsibilities of, and the relationship and coordination mechanism between the implementing agents: MCTPC (DoR), PCU, VL, UNDP/UNCDF in Laos and UNCDF/NY.
3. Assess the flexibility and responsiveness of the management to change.

b. Management systems

1. Assess the overall effectiveness of project management; i.e. management capacity, quality of work-planning, supervision of staff outputs, staff performance appraisal and feedback, competency development planning, management style, management-staff relations, competency and innovation in implementation of the project, staff qualifications and its relation/impact on the quality of outputs produced.
2. Assess the accountability of project management to donors, government and other stakeholders; e.g. is there regular reporting and communication between project and stakeholders, etc.
3. Assess the quality (adequacy) of the project financial management systems.

c. Procedures

1. Assess the quality (adequacy) of the project personnel recruitment, contracting and procurement procedures and documents and forms developed.
2. Assess the efficiency of the procedures for financial disbursements established under the project.

III. Operational Issues

1. Assess the demographics of the work force composition, working conditions, salaries, safety, etc.
2. Assess the appropriateness of rates paid for work done, and whether there have been any adjustments to task rates following experience gained on site.
3. Where relevant, assess the adequacy of the management and organization of the worker camps/construction sites (number of workers, mechanics, supervisors, security, facilities etc).
4. Assess the modalities established for the operation of the road rehabilitation/maintenance works carried out.

IV. Monitoring and Evaluation

The evaluation should assess the status and effectiveness of the project Monitoring and Evaluation system. Specifically, the system as it exists should be described, with special attention to both operational M&E as well as to the monitoring and evaluation of project results.

For Operational M&E:

- Assess the effectiveness of the existing monitoring system for work supervision and regular reporting purposes; with attention to the linkages between the individual workplans and the project workplans.
- Assess the effectiveness of the monitoring system for quality control of inputs and outputs, in relation to road and infrastructure construction as well as capacity building activities.

For the M&E of Project Results:

- Verify the availability and quality of baseline information.
- Assess the relevance of agreed upon indicators and the level of their acceptance as well as extent to which other key actors are aware of and agree with them.
- Review and compare project performance indicators with corporate performance indicators; i.e. the UNDP and UNCDF Strategic Results Framework.
- Check on the regularity and accuracy of data collection.
- Comment on the usefulness and extent of actual use of M&E data collected by project staff, key actors and beneficiaries.
- Assess the strengths and weaknesses of the current monitoring and evaluation system with view to ensure improved service delivery and capability of learning from experiences and best practices.

D. RESULTS

This section provides a discussion of the results - the outputs attained by the project, and the potential attainment of outcomes and impact.

I. Outputs

The results attained so far should be presented with regard to delivery of all outputs (both physical and process oriented); timeliness, quantity and quality, costs, utilization of outputs, etc. The evaluators should describe the outputs relative to targets in the project document and workplans, using the established performance indicators as well as any additional relevant indicators.

The outputs of the project may be categorized accordingly:

- a. Physical Infrastructure
- b. Capacity Building
- c. Institutionalization of Procedures

a. Physical Infrastructure

The total length (kilometers) of roads rehabilitated and under regular maintenance should be compared with the targets originally set. Production rates, time and cost per kilometer, work days generated (male/female), etc., should be presented graphically by District. Also, the quality of constructed, rehabilitated and maintained roads should be assessed.

b. Capacity building

Training and awareness campaign:

Information on the following activities should be documented and their quality assessed.

- the number and type of training for rehabilitation and maintenance contractors to carry out labor-based road works or infrastructure construction.
- number and type of training for workers and Ministry staff.
- the field training, monitoring and supervision of contractors.

- the contribution of on-the-job, or on-site training of contractors.
- the appropriateness of the training provided (including training methodology and approach).
- the appropriateness of the HIV/AIDS awareness campaign.
- effectiveness of on the job training – training.
- does the project maximize the use of locally available resources for capacity building?

Technical Assistance:

Assess the relevance and quality of the various types of technical assistance provided by the project, from different sources - UNCDF, UNDP, and other partner agencies. (Duration, number of people, subjects, costs, the method of transfer of technology.

c. Institutionalization of Procedures/Systems

- Assess the appropriateness of the selection and recruitment process of private contractors.
- Assess the appropriateness (cost, utilization) of the road selection criteria, construction design standards, the construction methodology and the work-plans.
- Assess the effectiveness of the private/public partnership for service delivery.
- Assess the quality and adequacy at district level of maintenance and operation for the completed road.

In all the above assessment of outputs, the relevant indicators should be specified and reviewed. (This should include a comparison with corporate indicators as specified in the UNCDF Strategic Results Framework. Please note that the results levels in the SRF may be different from that of the project. Nevertheless, the important thing is to compare the indicators, regardless of the results level where they are placed).

The evaluators should then assess the progress in achieving the outputs in relation to the potential for attaining the immediate and development objectives as stated in the project document.

II. Immediate Objectives

The mission should assess the likelihood of the project attaining its immediate objectives.

The evaluators should:

- Assess whether or not the system established for long-term maintenance for the rehabilitated rural roads is in operation and sustainable.
- Assess the capacities of the Department of Roads of the Ministry of Communication, Transport, Posts and Constructions in the areas of planning, management and technical know-how, and also assess whether or not they will be able to work competently and independently with the completion of the project.

Specific issues to be considered:

a. Institutionalization and Sustainability of the Project

With regard to the issues of institutionalization and sustainability, which applies to the project' outcomes, it should be noted that institutionalization and sustainability is defined as introducing something that is qualitatively new, by way of institutional practices or organizational arrangement, such that it can be sustained as a normal part of those practices and arrangements. This definition also includes resource investment and maintenance. In this section, assess the prospects and conditions for future sustainability of the projects outcomes and their related effects (technically, financially, institutionally and otherwise). The issues that have implications for the sustainability of the results of the project are:

Policy Environment

- The evaluators should refer to the UNCDF Strategy Paper for Policy Impact and Replication

as the framework to review and assess the policy environment (to determine if it is conducive for attainment of the projects goals; i.e. assess the extent to which policies are supportive or are a deterrent for project implementation. Relevant donor policies (including UNCDF and UNDP policies) should be reviewed as well as government policies. The evaluators should assess whether the project has had an impact on the broad policy direction of the government, the statutory and legal framework, the regulatory framework as well as the norms, prescribed systems, procedures, guidelines and practices used by the government to implement similar projects.

Institutional Issues

- Review the institutional bottlenecks of the central and district administration that are affecting the effectiveness of the projects in the context of its overall objective
- Assess the ownership and actual support provided by relevant central and local government officials for the project; e.g. assess understanding and ownership of the projects by officials at all levels; indicate actual supportive actions taken, timeliness of support, etc; e.g. are officials that are trained by the project retained in relevant positions to utilize their training?

Sustainability of Financing

- Assess local financing of capacity building; percentage of capacity building / training costs covered by the Department of Roads of the Ministry or any other alternative source.
- Assess the potential of local financing for operations and maintenance.
- Assess the sustainability of DoR financed maintenance after project completion.

Replicability

- Again, with reference to the UNCDF Strategy Paper for Policy Impact and Replication, assess the replicability of the project interventions (expansion of the same types of program through co-financing, up-scaling of the program sequentially by agreements with other donors, aspects of UNCDF program strategy or designs adopted by other partners)

b. Operational Capacity

The operational capacity of the Government to manage and implement the various systems and procedures put in place by the projects is a critical issue.

The evaluators should:

- Assess the capacity and efficiency of the Government to manage and implement the project, the suitability and availability of staff in the DoR and their motivation (civil service, salaries), the quality and timeliness of reporting (progress, audit etc.).
- Assess the technical supervision, financial management, staff management, equipment operation and repair of equipment capacity of district supervisors.
- Assess the technical, financial and managerial capacity, and the performance and operation of contractors.
- Assess the suitability, quality, efficiency and durability of the technical assistance provided by UNDP, UNCDF and other technical assistance providers, including the quality and suitability of the experts and the training methods utilized.

III. Impact

The evaluation team should assess the potential impact on poverty (measured broadly by human development and other relevant socio-economic indicators) by the project activities and results attained so far. The evaluation team should also, assess the availability of village level socio-economic data, comment on the availability or quality (if available) of baseline data for future impact assessment, and make recommendations for work that needs to be done to support future impact assessment. This would involve a review of data on changes in quality of life indicators as basis for the socio-economic impact analysis.

A. Land Use and Environmental Impact:

The consultant will also pay particular attention to the land use and environmental aspect of the project such as:

Immediate Project Impact:

- Has the project foreseen and managed its own localized effects, if relevant?
- Are there any localized or more systemic changes in runoff, erosion, water supply, stagnation project wastes, etc that effect local health conditions or agricultural production? On the local productivity of the soil?
- Is there any defined and implemented role of ongoing monitoring of environmental conditions directly related to the project, by the beneficiaries?

Waste Disposal:

- Have practices of waste disposal changes in any way that can be related to the project?
- Has there been any change in dumping along the road, bridges, new dumps?
- In what ways have the project and/or local beneficiaries dealt with any environment-related problems, and to what extent has there been conflict or conflict resolution?

Predominant Land Uses:

- Have there been any significant changes in the production functions of the land along the road?
- Have there been changes in deforestation, fauna, vegetation cover, or other critical natural balances?
- What effect does any change have on local livelihood, food sources and other socio-economic factors?
- To what extent do observed land use changes contribute to or detract from local livelihood opportunities?

B. Settlement Patterns of Local Population:

The consultant will look at the following points:

Out-immigration:

- Has there been any significant change in seasonal or annual migration to work in distant areas?
- Has this led to any changes in income for the local population?
- Has there been a change in local patterns as a result of any changes in out-immigration?

In-immigration:

- Has there been any significant change in the movement of new people in to the project area? Is this seasonal or permanent/ Related to a particular economic sector?
- To what extent the project has contributed to any changes in in-immigration?

Resettlement:

- Has the project required the resettlement of any populations? Discuss particular effects on affected population if any?

c. Socio Economic Impact:

In particular, the Local Socio Economist consultant will evaluate the Socio Economic impact of the road project on the local population by measuring whenever possible the following Key Performance Indicators (KPI):

Socio-economic	Target Group	Key Performance indicator
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Objective		
Reducing deprivation	Local consumers, local workers	Increase in visits to health facilities and from health workers
		Increase in school enrolment and attendance
		Changes in ranking of ways road promotes and hinders reduction in deprivation
		Changes in access to markets (physical, seasonal, transport modes)
Reducing vulnerability	Local consumers, large and small scale traders	Price trends of key goods bought and sold
		Increase in or stabilization of markets, availability of key goods bought and sold
		Increase in no, frequency & size of markets, inc No of small & large traders
	Local consumers, migrants	Change in non agricultural income-generating activities
		Increase in demand for labor along the road
		Increase in new business
		Migrants
	All	Changes in patterns of land ownership, including size, location, title, acquisition...
		Personal wealth ranking
	All	Changes in ranking of ways road promotes or hinders reduced vulnerability

E. OTHER ISSUES

i. Partnerships and Coordination Role of the Project

The evaluation should assess the nature and quality of the partnerships the project has forged with local actors, as well as the effectiveness of the coordination role the project plays in aligning the efforts of different players towards the project objectives. This should not be limited to government and donor partners, but should include a discussion of the role of civil society partners.

ii. Externalities/spillovers

The mission should assess whether there were any externalities which affect the project negatively or positively, for example, are there any adverse effects on the environment due to project activities? This review of externalities should include an examination of the implementation of other projects which have implications to the project.

iii. Critical Issues

Special attention should be given to the sustainability of the two roads giving particular attention to the issues such as institutional arrangements for maintenance management. In this context, the evaluation mission will also need to investigate the capacity of the Road Division, to whom the roads are finally transferred, in managing the maintenance of the roads and three bridges in the long-term, and to make recommendation for a sustainable maintenance management.

F. KEY FINDINGS, RECOMMENDATIONS

The mission should:

- a. State the key findings of the evaluation, taking into consideration both the successes and failures of the project. Special issues that need to be addressed as a result of project activities, or which will improve the project's effectiveness, should be substantiated here;
- b. Identify means to improve the utilization of the produced outputs and of the established systems and procedures (including corrective measures both internal and external to the project);
- c. Assess efficiency, effectiveness and impact, compared to similar projects, making concrete recommendation(s) on the course of actions to be followed. The action partner(s) should be clearly specified;
- d. Extract policy lessons learned that will help to improve the design of other projects in the same sector/thematic area, particularly regarding UNCDF policy goals, such as promoting participation, decentralized local planning, etc.
- e. The policy lessons learned should include recommendations geared to improving the chances of similar projects to be up scaled or replicated by the Government and/or other donors

Annex II: Persons met / interacted with during evaluation mission

Name and Surname	Responsibility/Location	Organization
Vientiane		
Ms. Kari Nordheim- Larson	Resident Representative	UNDP
Ms. Setsuko Yamazaki	Dep. Resident Representative	UNDP
Mr. Viengsamay Vongkhamsao	P.O.	UNCDF
Ms. Helle Buchhave	P.O.	UNCDF
MCPTC		
H.E. Khamlouad Sidlakone	Vice-Minister	MCTPC
Mr. Sommad Pholsena	Director General	DoR
Mr. Viengsavath Siphandone	Dep. Director General	DoR
Mr. Khamphet Chanvongnaraz	Director of PM	DoR
Mr. Ounheuane	Director of LRD	DoR
Mr. Chanh Boudhalivanh	Director of RAD	DoR
Mr. Sanoud Maniphonh	Project Manager	DoR
Mr. Vichit Khanthachack	Dep. Project manager	DoR
Mr. Ounheuane Siriamphone	Div. Head, Local Roads Div	DoR
Sayaboury Province		
H.E. Meck Phanlack	Vice-Governor	Province
Mr. Chanpheng Phanthumat	First Dep. Director	DCTPC
Mr. Phengnylanh Khamphanpheng	Second Dep. Director	DCTPC
Mr. Soulideth Vangnalath	Chief of Cabinet	DCTPC
Mr. Boun Singkham	Dep. Chief	DRAD
Mr. Khamsing Sorasouk	Director	Planning Dpmt.
Mr. Pian Chanthip	Director	Agriculture/Forestry
Dr. Khamla Phouthonsy	Dep. Director	Health Dpmt.
Dr. Bouaphanh Linthavong	Director	HIV/AIDS Project
Mr. Singhalad Linthavong	Administration	Health Dpmt.
Paklay District		
Mr. Seng Deuane Saysomboun	Governor	Paklay district
Mr. Bounthavy Sisophon	Chief	Trade Division
Mr. Bounlap Sengaphon	Chief	Finance Division
Mr. Tiew Chanthavan	Dep. Chief	Agriculture/Forestry
Mr. Bounheuang	Chief	Planning Division
Mr. Bouakham Vannaly	Chief	Communication
Kenthao District		
Mr. Houmphanh Phimsavath	Vice-Governor	Kenthao district
Mr. Samlan Souvannasod	Chief	Finance Division
Mr. Khamsay Khamchaleun	Dep. Chief	Trade Division
Mr. Chnasamone Keomanyvong	Chief	Communication
Mr. Phaythoun Keoboua	Chief	Industry Division
Mr. Som Ok Lithideth	Chief	Agriculture/Forestry

Mr. Bounchanh Sengsavang
Dr. Soulaphonh Kongsab
Mr. Konglith Chaleunsab

Chief
Chief

Education Division
Health Division
Cabinet of district

Projects

Mr. Bounmy Rattanatray
Mr. Pascal Babin
Mr. John Howe

NPD
CTP
Field Representative

PRODESSA Kenthao
PRODESSA Kenthao
SCA

Village Level

Mr. Khamphan Kanthavong
Mr. Xiengvat Keomany
Mr. Ban Phouthavong

Headman
Headman
Lao Front for National
Construction

Nasak village
Houay Tang village
Houay Tang village

Mr. Nhom
Mrs. Dum
Mrs. Mud
Mr. Phouang
Mrs. Nakhoun
Mr. Vanthong
Mr. Boun Sou

Villager
Villager
Villager
Villager
Villager
Villager
Villager

Houay Lod village
Houay Lod village
Houay Lod village
Nakhoun village
Nakhoun Village
Nakhoun village
Don men village

Local Entrepreneurs

Mr. Kham
Mrs. Dy

Taxi driver
Guesthouse owner

Sayaboury town
Paklay town

Annex III: List of documents and references used in the evaluation

United Nations Capital Development Fund; *Rehabilitation and Improvement of the Paklay-Kenthao Road (LAO / 98 / CO 4) Project document*; January 1998

Project Coordinating Unit, MCTPC, Department of Roads; *Final Project Completion Report, Paklay-Kenthao Road Rehabilitation and Improvement Project*; April 2002.

C. Lotti & Associati; *Monthly Progress Report No. 4, 10, 15, 20, 24, 29*; Paklay-Kenthao Road Rehabilitation Project (UNCDF/UNDP LAO 98/CO4); October 1998 – December 2000;

C. Lotti & Associati; *Comments on Time Extension Request from Contractor*; Paklay-Kenthao Road Rehabilitation Project (UNCDF/UNDP LAO 98/CO4); September 2000.

Lao Red Cross, Department of Health, Sayaboury, Save the Children Australia, Australian Red Cross; *Final Report, HIV/AIDS Prevention Project along the Paklay-Genthao Road in Sayaboury Province*; January 2002.

United Nations, Vientiane, Lao PDR; *Common Country Assessment (CCA), The Lao People's Democratic Republic*; December 2000

C. Lotti & Associati; *Project Completion Report, Paklay-Kenthao Road Rehabilitation Project (UNCDF/UNDP LAO 98/CO4)*; April 2002,

Royds Consulting (Laos) Ltd; *Paklay-Kenthao Road Rehabilitation Sayaboury Province, Socio-Economic Analysis*; October 1997

United Nations Capital Development Fund; *Strategic Results Framework 2000 – 2003*

United Nations Capital Development Fund; *2000 Results-Oriented Annual Report*; May 2001

United Nations Capital Development Fund; *UNCDF Project Evaluation Results 1999*; July 2000

United Nations Capital Development Fund; *Business Plan 2001-2002, A tool for internal management*; March 2001

Viengsmay Vongkhamso; *Field trip Report (Oudomxay and Sayaboury provinces) 16 – 21, July 2000*

Fax communication from Alberic Kacou, Director of Operations UNCDF New York to Gana Fofang, Resident Representative a. i. UNDP Laos concerning extension of engineer's contract (LAO/98/C04); October 2000

Norman Lauzon, Executive Secretary, UNCDF; *Back-to-office Report, Mission to Lao People's Democratic Republic 19-24 November 2000*

UNCDF; *Taking Risks*, (September 1999)

UNCDF; *Taking Risks: Background Papers*; September 1999

United Nations Capital Development Fund; *Investing with the poor*; January 2001

Antonio Cittati, UNCDF Principal Technical Mission; *Aide Memoire*, LAO/98/CO4; May 1999

Lutfallah A. Tueni; *UNCDF Technical Review Mission Report, Paklay – Kenthao Road Rehabilitation Project*, UNCDF/UNDP LAO/98/CO4; May 2000

From PAC File: *Comments on LAO/98/C04 Rehabilitation and Improvement of Paklay to Kenthao Road.*

Road Maintenance Programme – 1 *Appraisal Document, Attachment 4, Letter of Development Program*

Field Trip Reports (August 2000 and March 2001); Viengsamay Vongkhamsao, P. O. UNCDF Laos.

Daud Ahmad; *Technical Audit 2001, Third Highway Improvement Project (THIP), Final Report*; March 2002

Annex IV: An Evaluation Summary

Project Summary Data Sheet

Country:	Lao Peoples' Democratic Republic
Project Number and Name:	LAO / 98 / CO4 (Rehabilitation and Improvement of the Paaklay to Kenthao Road)
Estimated Total Project Cost:	US\$ 4,609,954
Financing:	
UNCDF Grant:	US\$ 4, 171,954
Government Contribution:	US\$ 438, 000 (Kips 1,861,500,000 at exchange rate of \$ 1 = 4,250 Kips)
Sector:	Transport and Communications
Sub-sector:	Road Infrastructure
Type of road:	56.66 km long 6.00 m wide gravel surfaced road
Government Executing Agency:	Ministry of Communications, Transport, Posts and Constructions (MCPTC), Department of Roads.
Start date:	20 January 1998
Start of civil works:	January 1999
Estimated completion date:	31 August 2000
Actual completion date:	24 April 2002 ¹
Evaluation Mission Period:	7 May to 30 May 2002

Background of the project

The project Rehabilitation and Improvement of the Paklay-Kenthao road (LAO/98/CO4) is situated in Sayaboury province of the Lao People's Democratic Republic (Lao PDR). The province stretches from north to south for approximately 300 km and borders on the west and south with Thailand, to the east with the Mekong River, and to north with Bokeo, Oudomxay and Luang Prabang Provinces.

Paklay and Kenthao are the southern districts of the province and the road is the last link of national road RN 4 (earlier RN 2A) to the Thai border, of which the section Luang Prabang - Sayaboury - Paklay were build under previous UNCDF grants. This project of rehabilitating the Paklay-Kenthao road came up in response to the GOL's request for assistance to complete the road between Luang Prabang and the Thai border. This project consisting of 57 km all weather gravel road section will facilitate communication between the isolated province of Sayaboury and the rest of the country. It will also provide a "land-bridge" between the neighbouring countries of Thailand and China and Vietnam.

Description of the project

The Development Objective of the project was *to improve the country's trunk system; to create international transit corridors to diversify the country's access to the sea; and to promote the role (of the project area) as a "land-bridge" between neighbours*. To attain this overall goal there were three immediate objectives set for the project.

- a) to improve economic and communication situation in Sayaboury province (with planned activities of rehabilitating 57km Paklay-Kenthao road; overhauling UNCDF mechanised brigade and; repairing Sayaboury-Paklay road);

¹ Final Project Completion Report. Ministry of Communication, Transport, Posts and Construction; Department of Roads; Project Coordinating Unit.

- b) to improve the national capacity (in both public and private sectors) in road construction (with planned activities of training Project manager and other selected PCU staff in the preparation and use of tender documents, pre-qualifications, bid evaluation, contract supervision and monitoring techniques and providing additional business opportunities for the local contractors);
- c) to minimise potential adverse impacts on public health and environment due to the road (with planned activities for raising awareness on HIV/AIDS in the villages and amongst construction workers and developing strategy for minimizing negative environment impacts of the road particularly relating to forestry).

The project was executed under UNDP's National Execution (NEX) approach following UNCDF procedures by the MCTPC through its Department of Roads and a Project Coordination Unit (PCU) headed by a National Project Director (Director General of the DoRs). Within this institutional framework the implementation arrangement was made by hiring an international consultant for engineering design and supervision and a contractor for production of civil works.

The Project Process:

Implementation of the project began by signing the contract document on 20 January 1998. By May 1998 C. Lotti and Associati, an Italian consulting firm were hired as Project Co-ordination Consultant (PCC) for providing engineering survey, design and supervision of the construction works.

The UNCDF mechanized brigade was overhauled and part of its strength was used for Sayaboury-Paklay road repair and finally the brigade was auctioned off in June 2000. The Sayaboury – Paklay road was repaired through a labour contract to SNCLP including asphaltting of 8 km section passing through villages.

By end of July 1998 the survey, design and preparation of tender documents were ready and tendering process for local competitive bidding was made. Joint Venture 13 South Savanakheth Road-Bridge Construction and Pa Phao Construction Company was awarded the contract for civil works on 25 February 1999.

From January 1999 the HIV AIDS awareness campaign was run by sub-letting the component to Save the Children Australia, Australian Red Cross and Lao Red Cross. For the purpose of capacity building of the MCTPC the Project Manager and National Project Director were sent abroad for training. The staff members of MCTPC were involved in project management through PCU.

The civil works were substantially complete by January 2001 and by April 2002 all components of the project including the outstanding works during the defect liability period were complete and final evaluation was made in May 2002.

Purpose of the evaluation

During the period from 7 to 25 May 2002 UNCDF fielded a mission for the purpose of undertaking final evaluation of Rehabilitation and Improvement of the Paklay-Kenthao Road (LAO/98/CO4). The broad goal of this final evaluation has been to assess

- the overall project performance;
- its potential socio-economic impact; and
- the quality of the physical infrastructure delivered

with a purpose to learn from the experience of this project and sustain the intended outcomes and impacts. The mission was comprised of Mission Team Leader Mr. Ganesh K. Ghimire, an external consultant rural infrastructure specialist; Member Mr. Lam Ngeunh Phakaysone, Laotian Socio-economic Specialist; and Member Mr. Laythong Phommavong, Project Monitoring and Inspection Unit, DoR/MCTPC.

Key Findings and Lessons Learnt

In overall the project is assessed from three perspectives – the process, the outcomes and the impacts. From this three-façade assessment various issues have been identified as key findings and the lessons learnt thereof.

Process:

The Project Design

In the background of designing this project there was a noteworthy experience of funding for rehabilitating earlier section of the road and continuity of funding became an impetus for this project. The evaluation mission identified some weaknesses in the project formulation. There was a mismatch between national capacity building objectives of the project and implementation arrangement under the particular institutional framework proposed in the project. The roles of different entity involved in project implementation were defined through different provisions under the project design, e.g. TORs for different entities. Practically, the executing agency's role was limited to facilitator, co-ordinator and monitor, which did not very much help achieve the national capacity building objectives. Secondly, defining the scope of the road in the project to limit within Paklay to Kenthao and not to reach to Thai border was not really compatible with one of the project objectives of developing the corridor into a "land bridge for neighbouring countries". In the project design some aspects in implementation arrangement remained unclear specially the application of UNDP Laos NEX approach (but following UNCDF procedure) and hiring service of a contractor in accordance FIDIC General Conditions of Contract as per the AMCD for LCB. The AMCD was developed in the special context of civil construction works under loan. In the project formulation revising and re-adapting of this document should have been recommended to make it more suitable for applying to donor supported projects with broader focus including capacity building. In particular TOR given to the engineering design and supervising consultant did not adequately reflect the needs of the project objectives and there was some ambiguity regarding their overall accountability.

Lesson learnt: In project formulation a) arrangement of roles of different entity should fully match with the purpose and objectives of the project; b) defining scope of the project should be compatible with the project objectives; c) appropriate adaptation of FIDIC General Conditions of Contract to suit with the characteristics of the project contributes to project economy, efficiency and better attainment of the project objectives;

Performance of the consultant and the contractor

The evaluation mission finds that the engineering design and supervision consultant had less experience and competency than it was necessary for road works in such natural and institutional setting as present in the project context. Their weak performance is found reflected in outputs like the design of the different components of the road, quality of the reporting and in the overall project output. Therefore, it is viewed that the performance of the consultant was rather weak. The performance of the contractor 13 South Pa Phao JV was very poor at the beginning causing a significant delay in civil works production, however they gradually seem to have improved. In overall assessment their performance, considering the fact that one of the project objectives was to strengthen contractor's capacity, was generally satisfactory (fair) except for the initial delays in timely delivery of civil works. For the delay the contractor was ultimately penalised and penalising seemed to work for expediting the civil work production.

Lesson learnt: a) It is necessary to take a good care in selecting a consultant (and defining a TOR for them) for the given type of project. b) Strictly following conditions of contract and penalising where deemed necessary may help achieve efficiency.

Monitoring

As explained earlier in this document the project had a system of monitoring in different tiers. In the context of overall performance of the project the UNCDF's role in monitoring was rather crucial. It was so also because of the kind of institutional framework under which the project was

implemented. In the overall project process the consultant had a very key role to play and for all practical purposes their performance was directly accountable to UNCDF. As the consultant's performance from the very beginning did not appear to be strong enough, this should have been taken note of by UNCDF and appropriate measures should have been taken. It is also to be noted that UNDP/UNCDF Laos had more of a day-to-day regular process monitoring and facilitating role, whereas UNCDF HQ had assumed the role of monitoring technical quality of outputs through Technical Review Missions. Monitoring at the UNCDF level, especially the Technical Review Missions did not exhibit such effectiveness to recommend or to take decisions necessary for corrective measures. It is also to be noted that there was a high turn-over of the overseeing officers at the UNCDF/UNDP Laos. There were changes of four individuals as the overseeing officers over the life of this project. This also seems to have partially contributed in making the UNCDF monitoring less-than-effective in overall.

Lesson learnt: For the given kind of capital-intensive civil construction project it is necessary to have a strong and effective monitoring system in place.

Outcome:

Project achievement

The **overall performance of the project** and particularly in delivering the physical infrastructure has been quite **good** (in a scale of Poor - Fair - Good - Excellent). Repaired Sayaboury-Paklay road, rehabilitated Paklay-Kenthao road, a major bridge and two small bridges are the main physical infrastructure that the project has delivered. The quality of these infrastructures is at par with what was envisaged during project formulation, though there was a delay of about five months in totality in completing the civil works. The project has performed very well in achieving most of the immediate objectives. And there are early indications that the project has contributed significantly towards achievement of development objectives.

The evaluation mission holds the view that the project achievement was slightly weak in aspects of national capacity building goals, though it is something difficult to measure. There are inadequacies in providing training to the executing agencies. The institutionalisation of the implementation arrangement as proposed by the project has not taken place to the extent that one would have expected. For example, there are not any specific policies, generic forms or bidding documents developed through the project's experience, which could be used in other projects. By virtue of participation in trainings abroad and by being involved in the project facilitation there is some limited capacity developed within the executing agency, but, given the objective of the project, this is not viewed as adequate.

Lesson learnt: Capacity building is achieved more effectively not by letting the subject watch the way things are done but by making the subject do it. Therefore, for the project of given kind, there should be a progressively increasing role for executing agency in project management.

Impacts:

Sustenance and enhancement of the desired impacts

In the evaluation mission's findings the project is very successful in attaining the desired impacts. There is a significant decrease in vehicle operating costs as reflected by the passenger fair and freight. This was obvious as also indicated by a decrease of 63% in roughness index. The accessibility in terms of time taken to commute within the road corridor has tremendously improved. There are ample indications of positive socio-economic changes taking place. The question now is, therefore, how to sustain and enhance these socio-economic impacts.

There are two issues to be addressed. First issue is about sustaining the transport infrastructure including P-K road and other rural roads in the project corridor. For addressing this there is a need for the GOL to take the responsibility by allocating adequate funding and appropriate institutional

arrangement. The P-K road has been included in the Road Maintenance Programme of the MCTPC/GOL and for the next few years its maintenance is taken care of. However, for keeping the transport infrastructures serviceable for the whole of the designed life it is necessary that the capacity of DCTPC and District Roads Office is improved. Seeing the current level of government allocation for road maintenance and weak institutional base at the local level this is a critical area to be addressed.

Second issue is that of the bridge over Nam Heuang (the river at Thai boarder) and the completion of 196 km of rural / village roads by PRODESSA. These will give a bust to the sustenance and enhancement of the positive impacts that are beginning to emerge. In this however, the link road of 6-7 km length, in a state of an earth-track, between Kenthao and the Nam Heuang bridge site is a critical bottleneck. Therefore, it is necessary that the Kenthao - Nam Heuang bridge road be rehabilitated in near future. It is only then that there will be a direct land-to-land transport link from Thailand to Luang Prabang and further North of Laos to China and Vietnam, the corridor serving as a "land bridge" between neighbouring countries.

Recommendations

On the basis of the findings and analysis the evaluation mission has the following key recommendations to make.

It is strongly recommended to MCTPC/GOL that the Kenthao - Nam Heuang bridge road be rehabilitated in near future.

It is also recommended to the MCTPC/GOL **to adopt** a more concrete **strategy** with a view to enhance its institutional capacity for project management at the central as well as provincial and district level. For this MCTPC will need to develop an action plan.

At this juncture of project completion there are two options existing for the project partners – UNCDF and MCTPC/GOL. One is to declare the project completed with an exchange of recognition of successful partnership by way of an **exit strategy**. The other option would be to keep collaboration continued for considering the final (last) phase of the long series of ongoing collaboration. This last phase may be designed for undertaking the rehabilitation of the last section of Kenthao-Nam Heuang with a focus in developing provincial and district level capacity in road sector development. Considering the following factors the mission is of the view that the second option might be preferable to both the project partners: i) UNCDF's long involvement in development of this transport corridor; ii) its priority focus on decentralisation; iii) need for sustaining and enhancing the positive impacts of Paklay-Kenthao Road; iv) GOL's desire (and need of funds) to build this Kenthao-Nam Heuang section of road and v) need of decentralisation in road sector management in LAO PDR.

Finally it is recommended that both the project partners, donor UNCDF and beneficiary MCTPC/GOL, learn the lessons (as mentioned earlier) from the experience of this project, specially in aspects of project formulation and effective monitoring.

LAO PEOPLE'S DEMOCRATIC REPUBLIC

Rehabilitation and Improvement of the Paklay-Kenthao Road (LAO / 98 / CO4)

Final Evaluation Mission

May 2002

Aide Memoire

Introduction

1. During the period from 7 to 25 May 2002 UNCDF fielded a mission for the purpose of undertaking final evaluation of Rehabilitation and Improvement of the Paklay-Kenthao Road (LAO/98/CO4). The broad goal of this final evaluation has been to assess

- the overall project performance;
- its potential socio-economic impact; and
- the quality of the physical infrastructure delivered

with a purpose to learn from the experience of this project and sustain the intended outcomes and impacts. The mission was comprised of Mission Team Leader Mr. Ganesh K. Ghimire, an external consultant rural infrastructure specialist; Member Mr. Lam Ngeunh Phakaysone, Laotian Socio-economic Specialist; and Member Mr. Laythong Phommavong, Project Monitoring and Inspection Unit, DoR/MCTPC. During its activities the mission was facilitated by Mr. Viengsamay Vongkhamsao, Programme Officer UNCDF and Mr. Sanoud Maniphonh, Project Manager, MCTPC on logistic support, co-ordination and travel to the field as well as in providing necessary information. The mission studied the project documents, discussed with main stakeholders and implementation partners and undertook a fieldvisit in the project site. Initial impression of the findings were further discussed with DoR/MCTPC and UNDP/UNCDF Lao officials for their views and comments as inputs to the findings as applicable. The initial findings of the mission as briefly outlined in this Aide Memoire, were also briefed to UNDP Resident Representative Ms. Kari Nordheim-Larsen and H. E. the Vice Minister Khamlouad Sidlakone, MCTPC respectively on 21 and 22 of May 2002.

The Project

2. The Rehabilitation and Improvement of the Paklay-Kenthao Road Project started on 20 January 1998 upon signing of the project agreement (the project document) between MCTPC / LPDR and UNDP/UNCDF. The development objectives of the project was *to improve the country's trunk system; to create international transit corridors to diversify the country's access to the sea; and to promote the role (of the project area) as a*

“land-bridge” between neighbours. The immediate objectives set for the project were: a) to improve economic and communication situation in Sayaboury province (in Paklay and Kenthao districts in particular); b) to improve the national capacity (in both public and private sectors) in road construction; c) to minimise potential adverse impacts on public health and environment due to the road.

3. For achieving these objectives three lines of activities were planned and undertaken with a total budget of US \$ 4,609,954 out of which US\$ 438,000 (about 10%) was GOL contribution and US\$ 4,171,954 was UNCDF grant. The first, and the largest, component of the project was that of civil works for rehabilitating and improving the Paklay-Kenthao road. The second line of activities comprised of training and capacity building of MCTPC/DoR staff. Third component of the project was to raise awareness on public health including HIV AIDS of the labours involved in the road civil works and the people in the road corridor. MCTPC was the executing agency of the GOL under which a Project Co-ordination Unit headed by National Project Director was constituted and a Project Manager was deputed. Execution of civil works was undertaken through Road 13 South and Pa Phao JV, a local contractor, and for designing and supervision Carlo Lotti & Associati, an Italian company was hired through UNCDF as Project Co-ordination Consultant. Civil works started from early March 1999 and completed only in early January 2001 five months later than scheduled due date of 31 August 2000. Project provided on-the-job training opportunities to the officials of MCTPC and DCTPC including training opportunities abroad to Project Manager and NPD. The public health and HIV AIDS awareness activities in the road corridor were undertaken through Save the Children Australia, Australian Red Cross and Lao Red Cross. The defect liability period of one year started from 15 January 2001 and due to some outstanding civil works undertaken during this period it was over by March 2002.

Overall Performance of the Project

4. In general, the **overall performance of the project**, and particularly in delivering the physical infrastructure, i. e. the rehabilitated road between Paklay and Kenthao of Sayaboury province of Lao PDR, has been quite **good** (in the scale of Poor - Fair - Good - Excellent). The project has performed very well in achieving most of the immediate objectives. And there are early indications that the project has contributed significantly towards achievement of development objectives. Therefore, now the question is that of how to sustain the desired socio-economic impact and enhance them.

5. By putting together the different components under a particular institutional framework and implementation arrangement the project was formulated with intentions to achieve some specific and overall objectives. The project was formulated on the basis of past experience of UNCDF involvement in Sayaboury - Paklay section of road and in response to the GOL request to support them in their endeavour to develop this corridor into a “land bridge” between neighbouring countries Thailand, China and Vietnam. In the given context of project formulation the **project was perfectly valid** and, of course, **feasible**.

6. The **implementation arrangements** made for the project by hiring a local contractor for civil works and a consultant for engineering design and supervision is found to be appropriate for attainment of the project objectives. Involving Save the

Children Australia, Australian Red Cross and Lao Red Cross in collaboration with Provincial Health Division of Sayaboury for implementing HIV AIDS component is also found to be very appropriate. The arrangement made for monitoring and evaluation of the different components of the project at different levels was clear. Particularly there were periodic reporting systems provided such as from contractor to PCC, PCC to PCU and UNCDF and from PCU to UNCDF. Besides these there were missions commissioned from UNCDF. The proposed arrangement was reasonably sound, however, the quality and effectiveness of monitoring performance at different levels could have been better.

Socio-economic and Environmental Impacts

7. There seems to be significant positive impact due to the road on overall **socio-economy** in the two districts. It is perhaps too early to expect the full realisation of the socio-economic impacts of the project, however, there can be seen some initial indications of this happening as one compares the currently emerging situation with the pre-project socio-economic baseline data.

8. The project does not seem to have caused any adverse **environmental impact** of any significance on its surroundings. Rather it has, perhaps, indirectly helped in discouraging the slash-and-burn practice, which is a prominent environmental problem in the project area. The fear that the better road might enhance the logging and felling of trees resulting into large-scale deforestation does not seem to manifest in reality. Actually, the logging is reported to have gone down after the completion of the road. There seem to exist also factors other than road in governing this situation in rise or fall of logging.

Quality of the Physical Infrastructure

9. The **quality of the constructed road and bridge** appears to be generally meeting the technical requirement as envisaged (all weather gravel road and the pre-stressed concrete bridge) during the project formulation. However, due perhaps to some minor limitations in the engineering design there are some vulnerable issues that concern the sustenance and trouble-free serviceability of the physical infrastructure. Particularly the embankment slopes at sections are too steep, road surface or the wearing course (the top 15cm gravel layer) at some sections appears to be fragile and cut-slopes at sections are too steep. This may result into flattening of the embankment and debris from falling of steeper slopes may cause side drains. In fact, the wearing course in some sections may not last even this monsoon. These issues have to be addressed properly through a maintenance programme.

Project Process

10. The **capacity of the engineering design and supervision consultant** for the project, from the outcome of their performance, it appears that they had less experience and competency than it was necessary for road works in such natural and institutional setting as present in the project area of LPDR. It is seen reflected in their design of the different component of the road, quality of the reporting and in their overall output. Therefore, it is viewed that the **performance of the consultant** was rather weak. The **performance of the contractor** 13 South Pa Phao JV was very poor at the beginning

causing a significant delay in civil works production, however they gradually seem to have improved. In overall assessment their performance was generally satisfactory except for the initial delays timely delivery of civil works for this they were ultimately penalised.

11. Throughout the project implementation process there was generally a state of **compliance with the requirement of the Project Document/Financial Agreements**. The defined procedural steps, rules and regulations of UNDP/UNCDF have been found observed, as confirmed by individuals involved in monitoring-and-managing it, in the project implementation process.

12. During the total project period of some three years and four months (Jan 1998 to May 2001, without the Defect Liability Period of one year) there have been few Technical Review Missions commissioned for monitoring the project progress and resolve any standing-by issues. These missions have made specific recommendations. Most of these **mission recommendations** appear to be **followed-up** during the project implementation process by parties concerned. In some cases, however, the follow-up of the recommendations needs to be carried on beyond the scope of the project period.

Lessons learned and Recommendations

13. One of the **critical lessons learned** from this project lies in the area the project design (formulation), specially in arranging roles of different institutions involved under the given institutional framework for the project and in defining the project scope. This arrangement of roles should fully match with the purpose and objectives of the project. Also, defining of the project scope must be done with respect to the purpose and objectives of the project, not in isolation. In case of this project the role designed for the project authority under executing agency was somewhat limited to that of a facilitator, co-ordinator and monitor. For the purpose of attainment of national capacity building goals the executing agency should have been given a progressively increasing roles in project management. Similarly, defining the scope of the road in the project to limit within Paklay to Kenthao and not to reach to Thai border was not really compatible with one of the project objectives of developing the corridor into a “land bridge for neighbouring countries”. These may be taken note of as some of the lessons for the future project formulations.

14. Concerning **the sustainability of the project’s outputs and desired impacts** there are some points to be noted. The sustainability of the road and the bridge depends on the level of maintenance for which the MCTPC / DCTPC are to shoulder the responsibility by allocating adequate funding and appropriate institutional arrangement. This road has been included in the Road Maintenance Programme of the GOL. By addressing the issues covered in paragraph 9, this, to a large extent, ensures sustenance of the road for the next few years. However, for keeping the road serviceable for the whole of its designed life it is necessary that the capacity of DCTPC and District Roads Office is improved. Seeing the current level of government allocation for road maintenance and weak institutional base at the local level this is a critical area to be addressed.

15. For the **sustenance and enhancement of the desired socio-economic impacts** of the road in the project area it is necessary that there is a reliable serviceability of the road. Together with this, facilitating commutation to the further interior and to the nearby Thai

border will have their roles to play in sustaining and enhancing the desired impacts of this project. In this context the on-going projects like Rural Development Project of the four Southern Districts of Sayaboury (PRODESSA) and the planned bridge over the Nam Heuang river (Thai border) are of significant importance. The bridge over Nam Heuang together with completion of 196 km of rural / village roads by PRODESSA will have tremendous positive impacts on the overall socio-economy of the area. In this however, the link road of 6-7 km length, in a state of an earth-track, between Kenthao and the Nam Heuang bridge site is a critical bottleneck. Therefore, it is strongly recommended to MCTPC/GOL that the Kenthao - Nam Heuang bridge road be rehabilitated in near future. It is only then that there will be a direct land-to-land transport link from Thailand to Luang Prabang and further North of Laos to China and Vietnam, the corridor serving as a “land bridge” between neighbouring countries.

16. As all the components of the project, including the civil works, are completed and defect liability period for the contractor also over by April 2002, there seem to be two options existing for the project partners at this juncture. One is to declare the project completed with an exchange of recognition of successful partnership by way of an **exit strategy**. The other option would be to keep collaboration continued for undertaking the rehabilitation of the last section of Kenthao-Nam Heuang with a focus in developing provincial and district level capacity in road sector development. Considering the following factors the mission is of the view that the second option might be preferable to both the project partners: i) UNCDF’s long involvement in development of this transport corridor; ii) it’s priority focus on decentralisation; iii) need for sustaining and enhancing the positive impacts of Paklay-Kenthao Road; iv) GOL’s desire (and need of funds) to build this Kenthao-Nam Heuang section of road and v) need of decentralisation in road sector management in LAO PDR.

17. Some further lessons could be extracted from the experience of this project, as following:

- a) that the concerned agency of the **government**, MCTPC in case of roads, **needs to adopt a strategy** to enhance its institutional capacity for project management at central as well as provincial and district level;
- b) that the concerned agency of the government should takes lead role in formulating the donor supported projects for harmonising with its development objectives and endeavours;
- c) that the GOL as well as the donors need to pay increased attention towards development of subsidiary and tertiary roads (village / rural roads) to further open up the rural interior;
- d) that the development donors, including UNCDF, should be more prudent in project formulation particularly in defining scope of a project with respect to its objectives, in devising institutional roles and developing TOR for technical assistance;
- e) that there should be a more effective monitoring of the projects at all pertinent levels;

18. It was the first ever case of HIV AIDS awareness component with a road project in Laos and it’s impact has been very encouraging. This has been a **positive lesson learnt**

in the country and as a result other projects, the new SIDA/ADB (Part of ADB - 9 NR 3) road project for example, are also integrating similar components.

19. Penalising a contractor in this project for lack of timely delivery of civil works was also the first ever case in Laos. Imposition of penalty expedited the production rate of civil work tremendously. Mission is of the view that **learning lesson** from this case such contractual provision of penalising the contractor for delays should be brought into wider practice in Lao PDR.

Annex VI: An Evaluation Follow-Up Matrix

Table: Evaluation Follow-up Matrix

Findings & Recommendation	Follow-up Actions	Responsibility
Generally the project formulation already makes a basis of defining the interrelationship between different parties involved in implementation including system of accountability. <i>The roles of these parties in implementation should be designed with respect to the very purpose and objectives of the project.</i>	Lesson learning for future projects preparation.	UNCDF and donors
Scope of activities earmarked in the project formulation are vital for meeting the goals of the project. <i>Therefore, extreme care should be practiced in defining the scope of activities within a project.</i>	Lesson learning for future projects preparation.	UNCDF and donors
Role of engineering design and supervision consultant was inadequate due to the TOR given to them and their performance was less than satisfactory owing to their lack of competency. <i>Therefore, extreme care should be adopted in developing the consultant's TOR and in pre-assessing their competency.</i>	Lesson learning for future projects preparation.	UNCDF and donors
Effective monitoring from a key level of project structure is of paramount importance for smooth implementation and in succeeding to attain the project objectives. <i>Therefore, it is necessary to provide an appropriate mechanism and human resources for ensuring effective monitoring.</i>	Lesson learning for future projects preparation.	UNCDF and donors
Outcome on the capacity building objectives of the project is something difficult to measure. Whatever capacity building of the executing agency has been achieved through this project can be best assessed from the performance of the executing agency itself. <i>The MCTPC may involve itself in promoting rehabilitation of Kenthao – Thai border section and strengthening local capability for maintenance.</i>	Preparation of a project package comprising of Kenthao – Thai border rehabilitation, local road maintenance activities and local capacity enhancement.	MCTPC/GOL
The civil work for the rehabilitation of the P-K Road has been fully complete and the DLP also has come to an end.	Refund the remaining 50% of the retention money after having made the necessary deduction.	PCU / UNDP
Applying the (adapted) FIDIC General Conditions of Contract in managing the civil works contracts of smaller magnitude and less complex nature may actually result into lack of cost effectiveness. This was shown by the experience of this project as well.	Careful assessment during project formulation.	GOL / UNDP Any other party
The physical infrastructures developed by the project	Simultaneous efforts to strengthen local	GOL / MCTPC

<p>are technically in good technical. It is necessary that an arrangement is made to maintain them and ensure serviceability over their designed life. Assuming this responsibility the MCTPC/GOL has included this road into the Road Maintenance Program for period up to 2009. <i>It is necessary, therefore, to address the maintenance issue beyond 2009.</i></p>	<p>and provincial road development capability in management, technical know-how and financial allocation.</p>	<p>Any donor a</p>
<p>As the outcomes of the project and early indications of socio-economic change indicate the project has significantly achieved in generating desired impacts. Sustenance and enhancement of these impacts depend on various factors including rehabilitation of Kenthao-Nam Heuang bridge and sustenance of the transport network. <i>Therefore, it is recommended that the Kenthao-Nam Heuang road be rehabilitated soon and local capability for road maintenance be developed.</i></p>	<p>MCTPC to formulate a project and seek financial resources for it. UNCDF to provide any possible support to MCTPC.</p>	<p>MCTPC / G UNCDF/UN</p>
<p>As the project in all its facades has been complete it is time to officially close the project and declare the project to have been completed. The successful completion of the project profoundly implies that the collaboration between UNCDF and MCTPC/GOL has been fruitful. <i>Recognition of successful partnership by way of an exit strategy is recommended.</i></p>	<p>Exchange of letter between the project partners recognizing and appreciating the fruitful collaboration.</p>	<p>UNCDF and MCTPC / G</p>

Annex VII: Itinerary of the Evaluation Mission fieldwork

Rehabilitation and Improvement of Paklay-Kenthao Road Project (LAO/98/CO4)

Tuesday 07 May 02 (Arrival of the Mission Team Leader in Laos)

- 09:30 Arrive in Vientiane airport
- 10:30 – 11:00: Meeting with PO UNCDF and team member of evaluation
- 11:30 – 12:00 Courtesy call to Ms. Kari Nohrdiem-Larsen, RR and Ms. Setsuko Yamazaki, DRR
- 13:00 – 14:00 Meeting with Mr. Sommad Pholsena, Director DoRs, Mr. Sanoud Maniphonh, the Project Manager
- 14:00 Briefing and Orientation by PO UNCDF and documents collection.

Wednesday 8 – Saturday 11 May 02 (in Vientiane)

08 May 02:

- 08:15 – 08:40 Mission presenting its methodology and breakdown of the work programme and technical requirements
- 09:30 – 10:00 Courtesy call to Mr. Khamlouad Sidlakone, Vice-minister of MCTPC
- 10:00 – 12:00 Meeting with Mr. Sanoud Maniphonh, Project Manager, and Mr. Laythong Phommavong, Project Monitoring and Inspection Unit.
- 12:00 – 13:00 Lunch
- 13:30 – 14:30 Meeting with Mr. John How, Field Representative, Save the Children Australia

09 – 11 May 2002:

Orientation, desk review and meeting with project stakeholders (DoR, PCU and UNCDF)

Sunday 12 May 02 (travel to Sayaboury province)

Travel from Vientiane to Sayaboury province vial Luang Prabang

Monday 13 May 02 (in Sayaboury province)

- 08:30 – 09:45 Meeting with Mr. Pheng Duangngeun, Director of DCTPC of Sayaboury province, Mr. Vichit Khanthachac, Deputy Project Manager.
- 09:55 – 10:10 Meeting with Director of Planning and Cooperation Division, Sayaboury province
- 10:15 – 11:10 Courtesy call to Mr. Meck Phanhluck, the vice-governor of Sayaboury province
- 11:20 – 12:10 Meeting with Dr. Bouaphanh, Health division of Sayaboury province and Head of HIV/AIDS prevention committee of Sayaboury province.
- 13:35 – 14:55 Meeting with Mr. Phien Chanhthip, Director of Provincial Agriculture and Forestry Service Office, Sayaboury
- 15:00 Travel from Sayaboury to Paklay district

Tuesday 14 May 02 (in Sayaboury province)

- 08:30 – 09:10 Meeting with Mr. Sengdeuan Saysomboun, Paklay district governor
- 09:20 – 12:15 Meeting with various authorities of the district (Planning and Cooperation, Trade, CTPC, Industry, Finance, DAFSO divisions etc)

13:10 – 17:10 Meeting with Headman of villages (Nasack, Kengsao, Khamkai, Houay tang) and discussed with villagers along the road

Wednesday 15 May 02 (in Sayaboury province)

08:30 – 09:10 Meeting with Mr. Houmphanh, Kenthao district governor
09:20 – 12:15 Meeting with various authorities of the district (Planning and Cooperation, Trade, CTPC, Industry, DAFSO, Finance etc)
13:45 – 16:10 Meeting with PRODESA project management team
16:25 – 17:30 Travel from Kenthao to Thai border

Thursday 16 May 02 (in Sayaboury province)

08:30 – 10:30 Meeting with cabinet chief of each division in Kenthao (Planning and Cooperation, Trade, CTPC, Industry, Finance and DAFSO)
10:10 – 11:30 Interviewing villagers (Houy Lod village)
11:30 – 12:00 Travel to Done Men village
12:00 – 12:50 Travel to Takded and Khamkai villages
12:50 – 13:10 Travel to Paklay district
14:30 – 16:55 Collecting data and information from Planning and Cooperation office
17:00 – 20:35 Travelling to Sayaboury

Friday 17 May 02 (in Sayaboury province)

08:00 – 09:10 Meeting with Mr. Meck Phanluck, vice-governor of Sayaboury province
09:35 - 11:55 Meeting with various government organisations in Sayaboury
14:30 – 15:20 Collecting data and information from Planning and Cooperation Office, Sayaboury
15:30 Travel to Luang Prabang

Saturday 18 May 02

Travelling from Luang Prabang to Vientiane

Sunday 19 – Monday 20 May 02 (in Vientiane)

Field information analysis and drafting Aide Memoire

Tuesday 21 May 02 (in Vientiane)

09:30 – 10:30 Wrap up meeting with the DoR
11:00 – 12:00 Debriefing to Ms. Kari Nohrdiem Larsen, RR, and Ms. Setsuko Yamazaki, DRR

Wednesday 22 May 02 (in Vientiane)

14:00 – 14:45 Debriefing to Mr. Khamlouad Sidlakone, vice-minister of MCTCP

Thursday 23 – Sunday 26 May

Report Writing

Monday 27 May

Mission Team Leader flying out.

**Table: Evaluation Follow-up Matrix
For Rehabilitation and Improvement of the Paklay-Kenthao road project, LAO/98/C04**

Findings & Recommendation	Follow-up Actions	Responsible parties	Time frame	Remarks
Outcome on the capacity building objectives of the project is something difficult to measure. Whatever capacity building of the executing agency has been achieved through this project can be best assessed from the performance of the executing agency itself. <i>The MCTPC may involve itself in promoting rehabilitation of Kenthao –Thai border section and strengthening local capability for maintenance.</i>	Preparation of a project package comprising of Kenthao – Thai border rehabilitation, local road maintenance activities and local capacity enhancement.	MCTPC/GOL	In near future	
The civil work for the rehabilitation of the Paklay-Kenthao road has been fully completed and the DLP also has come to an end.	Refund the remaining 50% of the retention money after having made necessary deduction.	PCU/UNCDF	By 2rd week of June	Done
As the outcomes of the project and early indications of socio-economic change indicate the project has significantly achieved in generating desired impacts. Sustenance and enhancement of these impacts depend on various factors including rehabilitation of Kenthao-Nam Heuang bridge and sustenance of the transport network. <i>Therefore, it is recommended that the Kenthao-Nam Heuang road be rehabilitated soon and local capability for road maintenance be developed.</i>	MCTPC to formulate a project and seek financial resources for it. UNCDF to provide any possible support to MCTP.	MCTPC/GOL UNCDF/UNDP	In near future	
As the project in all its facades has been completed it is time to officially close the project and declare the project to have been completed. The successful completion of the project profoundly implies that the collaboration between UNCDF and MCTPC/GOL has been fruitful. <i>Recognition of successful partnership by way of an exit strategy is recommended.</i>	Exchange of letter between the project partners recognising and appreciating the fruitful collaboration.	UNCDF and MCTPC/GOL	By the end of June	By the end of September

Note: due to delay in receiving the final report from UNCDF HQ most of the tasks specified in this table have not been taken in time.