Regional research design workshop for gender, poverty and mobility analysis of road transportation development in GMS.

Asian Institute of Technology (AIT), 1-3 April 2009

SEACAP experience in transport research in the GMS with lessons for new initiatives on gender and transport.

Authors

David Salter, Technical Manager UNOPS, SEACAP

Mike Shone, Director, Transition Solutions Group

Arouny Anne Sakulku, Executive Director, Lao Consulting Group

Rob Petts, Rural Transport Theme Champion, gTKP

Abstract

All effective development, including infrastructure, involves the need for a recognition and harmonization of technical, social, economic, environmental and political goals. In the transport sector it is now becoming increasingly important that there is closer collaboration between all of the key disciplines. The development of better rural access and transport should lead to important benefits shared by rural people. In general terms these benefits are poverty reduction, job creation and access to socio-economic opportunities. Rural people should also benefit from involvement in the construction and the maintenance of the rural transport infrastructure. However, not all benefits are currently equally realized by women and men. The South East Asia Community Access Programme (SEACAP) is an initiative addressing problems of rural access and transport sustainability. It does this by developing a multi-disciplinary knowledge base for good decision making through carrying out projects of applied research into practice. This paper describes the SEACAP approach, project outputs that have a gender dimension, and it makes recommendations for further research into advancing gender equity in rural access and transport.

Key words: gender, policy, strategy, rural transport infrastructure, targeting, appropriate technology, capacity building, employment

SEACAP - http://www.seacap-info.org/

Table of Contents

Abbreviations and Acronyms

ADB	Asian Development Bank
AIT	Asian Institute of Technology
DFID	Department for International Development (UK)
CMDGs	Cambodian Millennium Development Goals
GMS	Greater Mekong Sub-region
gTKP	Global Transport Knowledge Partnership
IFRTD	International Forum for Rural Transport and Development
ILC	International labour Conventions
ILO	International Labour Organization
ISO	International Standards Organization
km	kilometer
LVRR	Low Volume Rural Road
m	metre
MDGs	Millennium development Goals
MoT	Ministry of Transport (Vietnam)
MRRD	Ministry of Rural Rehabilitation & Development (Afghanistan)
NEEP	National Emergency Employment Programme (Afghanistan)
NIS	National Institute of Statistics (NIS)
ORN	Overseas Road Note (a TRL publication)
PRSP	Poverty Reduction Strategy
RRSR	Rural Road Surfacing Research (Vietnam)
RRST	Rural Road Surfacing Trials (Vietnam)
RT	Rural Transport Programme (Vietnam)
SEACAP	South East Asia Community Access Programme
SOA	State of Art (a TRL publication)
sqm	square metre
SSC	Small Scale Contractors
TRIP	Tertiary Road Improvement Project (Cambodia)
TRL	Transport Research Laboratory (UK)
UK	United Kingdom
UN	United Nations
UNOPS	United Nations Office for Project Services
USD	United States Dollar
VND	Vietnamese Dong
WB	World Bank

1. Introduction

Sustainable and affordable rural access is a necessary precondition for expanding social and economic opportunities for rural people, thereby enhancing pro-poor growth and poverty alleviation efforts. SEACAP[1] is a poverty-targeted transport initiative within the global Transport Knowledge Partnership[2] (gTKP) framework. It is aimed at improving the sustainable access of poor people in rural communities to health, education, employment and trade opportunities, with projects currently in Vietnam, Cambodia and Laos PDR.

SEACAP is primarily funded by United Kingdom's Department for International Development (DFID) and enjoys close links and funding cooperation with governments, World Bank (WB), Asian Development Bank (ADB), and the United Nations Agencies (UN). The first phase of this programme started in year 2004, and will continue until June 2009. DFID is now considering a second phase of SEACAP and has already expanded the successful approach to a new African programme: AFCAP.

SEACAP has expanded to more than thirty projects at various stages of completion. The individual projects demonstrate good practice responses to local demands and in combination create a comprehensive multi-level approach.

SEACAP funds applied research to solve rural access problems, disseminates information about the solutions, and supports their mainstreaming. SEACAP supports the uptake into PRACTICE of low cost, proven solutions for rural access. Focused on the needs of the poor, it aims to maximise the use of local resources, including labour, materials, enterprise and most importantly ingenuity.

In most developing countries the major proportion of rural development investments is in rural roads. In general these investments have a poor track record in achieving the potential benefits. Poor asset sustainably is the chronic problem. This is the rationale for SEACAP looking first at the technical and operational problems affecting sustainability. Further poor performing investments in rural transport not only fail to deliver the potential benefits but they also reduce resources available for other areas of development such as trade, health or education.

The objective of this paper is to contribute to the regional research design workshop for gender, poverty and mobility analysis of road transportation development in GMS by:

- Reviewing the SEACAP research to practice approach;
- Compiling the specific gender and transport issues that have emerged from the outputs and experience of SEACAP and related projects; and,
- Identifying potential knowledge and application gaps for gender and transport and suggest areas of further research.

[1] http://www.seacap-info.org/
[2] http://www.gtkp.com/

2. SEACAP approach.

SEACAP is an influencing program of applied research to practice. The SEACAP program is structured and resourced to take forward the research outputs all the way into practice. All too often research is completed and shelved and has no real impact, this is a scenario that SEACAP tries hard to avoid. In the SEACAP context, research has value and can be considered successful only if it is put into good use. The Diagram 1 below lays out the SEACAP approach. In general terms this approach consists of:

Problem Identification: The first step in the process, in conjunction with the key stakeholders, is identifying the problems associated with the "vision, goals or objectives" for the improved performance of rural access/transport development. These problems usually arise from an inadequate knowledge base and analysis which in turn leads to unsound decision making. The knowledge base may also contain serious gaps. Usually the needed knowledge exists with someone, somewhere, but it is not readily available, and may need adaption for local application.

Research: Once the problem has been identified, investigations and research activities are initiated. The nature of the research will vary with the nature of the problem. It is important to recognize that most of the problems encountered are not new and that there is likely to be prior research that can be examined. This can help to avoid expensive and unnecessary investments of time and resources.

Emerging solutions: As the research progresses possible solutions will emerge. Often the research can move to potential solutions quickly where prior relevant research outputs are available. This has been the case for most of SEACAP's work. There are also instances where the research is not yielding useful solutions and it becomes necessary to re-think the problem definition or the research methodology or even the overall objectives.

Dissemination: As the solutions emerge, the findings are shared and disseminated to the stakeholders and to those who may be able to provide guidance. The dissemination process provides feedback on the viability of the emerging solutions.

Another important benefit of the dissemination is that the progress towards solutions is made transparent and enhances the acceptance of the outcomes. This in turn increases the chances that these outcomes will be eventually put into practice. SEACAP has dedicated resources for this important step.

Dissemination includes such activities as uploading information onto websites (http://www.seacap-info.org/) seminars, workshops, meetings, study tours and articles in newspapers, journals etc.

Acceptance of solutions: Once solutions are judged to have met a reasonable level of acceptance, it is time to take the next steps towards mainstreaming. If the dissemination process feedback indicates that the emerging solutions are not meeting acceptance by experts and stakeholders, it may be necessary to revisit the process right from problem definition.

Mainstreaming solutions: The mainstreaming process provides the foundation for an improvement in practice. The foundations for practice exist at the national and at the international level.

At the national level mainstreaming targets include relevant:

- policies and strategies;
- standards, specifications and associated guidelines;
- in-service training materials and programs, as well as university and technical college courses;
- Capacity building of the public and private sectors; and
- Identification and establishment of systems for measuring performance indicators.

It is also important that the solutions are consistent with the definition of international good practice. In many instance the solutions may contribute to this definition. International mainstreaming targets may include:

- authoritative publications such as the TRL "Overseas Road Note" series and the "State of Art" series;
- the gTKP and IFRTD websites and documentation;
- other research institutes and programs; and,
- an ISO on key issues.

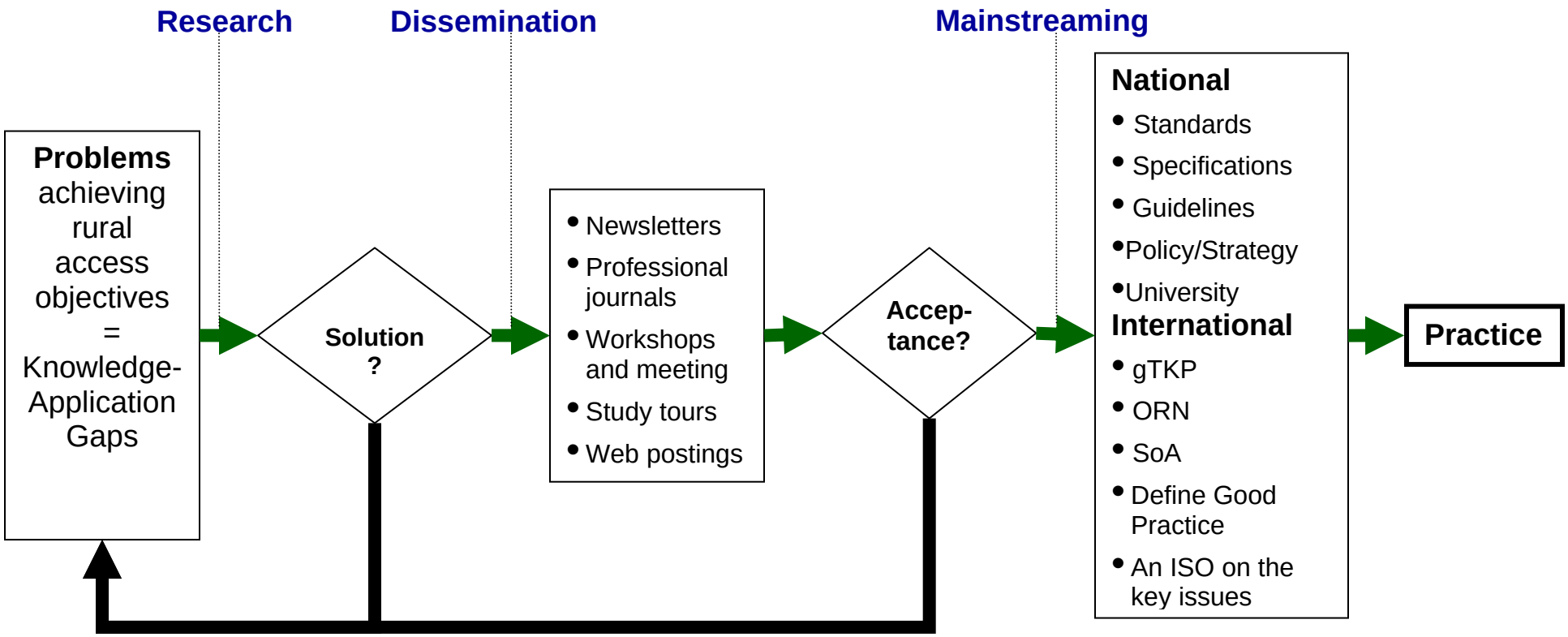
As with dissemination, SEACAP has dedicated resources for this crucial step towards influencing practice.

Practice: The degree to which practice improves is the ultimate indicator of success. The experience in SEACAP is that this takes a considerably long period of time to achieve especially when change involves the hurdles of policy and strategy review and modification.

In Vietnam surfacing and paving technology research initiated in year 2002 is only now gradually becoming more accepted. There is still more to do in terms of consolidating the outcomes of the research into practice, both at the central and provincial levels. In this case it would be safe to estimate that the entire process will take at least 10 years.

A major challenge is to maintain commitment, continuity and consistency among the stakeholders over this period of time. For example to understand the performance of road surfacing and paving performance, observations must be made over a period of at least eight years. This information is necessary for the costing and technology selection models to be accurate and verified. Unfortunately, many programs do not have the luxury of the necessary time horizons and hence research ends up, at best, in libraries rather than in being applied.

Diagram 1: The SEACAP Research to Practice Process



3. Gender Dimension in SEACAP and Related Projects

There is an accepted and clear positive relationship between better access and poverty reduction and social-economic development. Work carried out by the World Bank in Vietnam is particularly relevant here. In Laos studies (Warr, 2007) found that lower rural transport costs are highly pro-poor. This paper accepts this relationship as a point of departure.

In general rural people share the common benefits from better rural access, transport, and mobility. However, there are instances where there is a difference or inequality in the realization of potential benefits between women and men. Several of the SEACAP projects outputs suggest evidence of gender benefit differentials. This section looks at SEACAP and related projects and the gender differentials.

Rural Road Policies, Strategies and the Cambodian Millennium Development Goals[3] (CMDG).

In Cambodia, SEACAP supported the Ministry of Rural Development (MRD) to update the Rural Roads Policy[4] and elaborate the Rural Roads Strategy. Both documents are currently in the process of government approval.

The **POLICY** document has the following vision and goals:

Vision: Every Person living in rural Cambodia will have year-round access to basic needs, economic and social facilities, services and opportunities.

Goals with a gender dimension:

.

c. Land and water rural transport infrastructure will be complementary to improve mobility and access for rural women and men.

d. Rural transport modes and services will be affordable, equitable, dependable and safe.

The policy document contains the following statement focused on gender:

> **"Gender** (with respect to rural road development)
>
> *Objective:* Both women and men benefit equitably from the development of rural transport including rural road infrastructure.
>
> *The Context and issues*

[3] The CMDGs are found at: http://www.mop.gov.kh/Default.aspx?tabid=156

[4] SEACAP 6, Updating Cambodian Rural Road Policies and Strategies - http://www.seacap-info.org/?mod=home&act=pdesc&pid=9

Gender equality and empowering women is one CMDG (Cambodia Millennium Development Goal). Empirical study results from Cambodia and other countries in the region suggest that there exists a positive link between rural road development and the achievement of indicators related to CMDG 3. The National Poverty Reduction Strategy (NPRS) stresses the need for addressing women employment issues through appropriate policies and programmes to reduce poverty. The concept of the involvement of women in roadworks in Cambodia is not new - a number of rural road projects have employed women in the past including in the technical supervision of the project. Participation of women at all stages of the project cycle is required to address the issues linked to gender and transport as well as to promote gender equality.

The policy direction: MRD will mainstream gender issues in all stages of the project cycle – identification, preparation and design, appraisal, implementation and supervision, and monitoring and evaluation".

The policy document has laid out the principles for the MRD's rural road development program. Key elements in the policy are the harmonization of the policy with the other national development guides including the CMDGs and the NPRS.

The purpose of the Cambodian rural road's STRATEGY is to lay out how the rural road policies will be put into action. It describes in detail the links that rural road development has with the achievement of the gender related CMDGs. The CMDG discussion highlights the importance of rural access as a broad poverty reduction tool. Better access lowers transport costs. Transport costs can be understood in financial, temporal and effort terms. The better physical access leads to better access to social opportunities such as education. A prime example is that better access is often the critical factor in girls getting to school. The strategy discusses these benefits as follows:

- **CMDG 2 - universal primary education**[5]:

  International and Cambodian evidence has established substantial links between rural roads development and increases in enrolment rates for both boys and girls by improving the accessibility of schools for rural people.

---

[5] **CMDG 2: Achieve universal nine year basic education**

Overall target 3: Ensure all children complete primary schooling by 2010 and nine-year basic schooling by 2015

Overall target 4: Eliminate gender disparity in nine-year basic education by 2010

Target 2.9: Improving the ratio of girls to boys in primary education from 87% in 2001 to 100% in 2010.

Target 2.10: Improving the ratio of girls to boys in lower-secondary education from 63% in 2001 to 100% in 2010

- **CMDG 3 - gender equality and empower women[6]:**

  Empirical evidence from Cambodia and Vietnam suggest a positive link between rural road development and the achievement of some of the indicators connected to this goal, especially by extending the travel horizon of women, increased school enrolment of girls, and increased interactions between women and government and NGO workers.

- **CMDG 4 & 5 – reduce child mortality, improve maternal health[7]:**

  Empirical study results from Cambodia and other countries suggest that improved rural roads increase access to health facilities and hence their usage, especially by women, and also results in more frequent visits by health workers. Therefore, an improved rural road network would help in the achievement of some of the worst performing indicators of CMDG 5.

---

[6] **CMDG 3: Promote gender equality and women's empowerment**

Overall target 5: Reduce significantly gender disparities in upper secondary education and tertiary education

Target 3.1: Improving the ratio of girls to boys in upper secondary education from 48% in 2001 to 100% in 2015

Target 3.2: Improving the ratio of girls to boys in tertiary education from 38% in 2001 to 85% in 2015

Overall target 6: Eliminate gender disparities in wage employment in all economic sectors

Target 3.5: Increasing the female share in wage employment in agriculture (primary sector) from 35% in 1998 to 50% in 2005

Target 3.6: Increasing female share in wage employment in industry (secondary sector) from 44% in 1998 to 50% in 2005

Target 3.7: Increasing the female share in wage employment in services (tertiary sector) from 21% in 1998 to 50% in 2015

[7] **CMDG 4: Reduce child mortality**

Overall target 9: Reduce the under-five mortality rate

Target 4.3: Increasing the proportion of children under 1 year immunized against measles from 41.4% in 2000 to 90% by 2015

Target 4.4: Increasing the proportion of children aged 6-59 months receiving Vitamin A capsules from 28% in 2000 to 90% by 2015

Target 4.5: Increasing the proportion of children under 1 year immunized against DPT3 from 43% in 2000 to 90% by 2015

CMDG 5: Improve maternal health

Overall target 10: Reduce the maternal mortality ratio

Target 5.1: Reducing the maternal mortality ratio from 437 in 1997 to 140 per 100,000 live births in 2015

Target 5.3: Increasing the proportion of births attended by skilled health personnel from 32% in 2000 to 80% in 2015

Target 5.5: Increasing the percentage of pregnant women with 2 or more ANC consultations from skilled health personnel from 30.5% in 2000 to 90% in 2015

Target 5.9: Increasing the proportion of pregnant women who delivered by Caesarean Section from 0.8% in 2000 to 4% in 2015

The strategy analyzes in depth the Participation of Women in Roadworks:

> "Women constitute slightly more than half of Cambodia's population, but the economic activity rate is higher for men compared to women, and the unemployment rate is higher for women than men. Also approximately a fifth (19.6%) of Cambodia's households are female-headed.
>
> CMDG 3 has three indicators that seek to increase higher women's employment in different sectors. There are limited off-farm employment opportunities in rural Cambodia, and for women such opportunities are even lower. NPRS commented that poverty cannot be reduced unless policies and programmes address women's employment issues. NPRS concluded that addressing such issues will not only address women's equity issues, but will also strengthen the efforts for development and poverty reduction.
>
> Therefore, there is a need to take actions so that a fair share of women's participation in roadworks is ensured. This is obviously especially the case where employment-intensive technologies are utilized. However, the concept of promoting women's participation in roadworks is not new. A number of rural road projects made efforts to employ women in higher numbers."

The strategy makes the following recommendation:

> "**deliberate interventions (are needed) to promote women's participation in road-works**".

This recommendation is supported by the following actions:

> "Include this issue in policy statements. Consult with Ministry of Women's & Veteran's Affairs and agree to different threshold levels for different types of roadworks for women's participation. Insert a clause in the standards contract document on the inclusion of women in road works."

The gender dimension is far more comprehensibly covered in the Cambodian documents than in Vietnam. The current Vietnamese Rural Transport Strategy is technically comprehensive with a strong poverty reduction theme, but it does not disaggregate the different impacts that rural transport development may have on men or women. Another study in Vietnam prepared by the Ministry of Transport (MoT), "Institutional, Incentive and Capacity Study of The Local Transport Network" also contains no reference to gender.

Rural Road Surfacing Trials[8] (RRST)

A main focus of SEACAP is identifying appropriate sustainable Low Volume Rural Road (LVRR) technologies. In Vietnam, SEACAP continues to carry out the RRST. The RRST trials select technologies to find the most appropriate

[8] SEACAP 1, Rural Road Surfacing Research Programme - http://www.seacap-info.org/?mod=home&act=pdesc&pid=4

surfacing and paving for the various environments found in the provinces participating in Vietnam Rural Transport (RT) Programme. The RT is a major investment program supported by the World Bank and DFID.

While this may sound like an entirely technical and engineering matter, one of the objectives of the RRST is to enhance the benefits of LVRR development to the local communities, especially to the poor and to women. The principle way of achieving this is from wages gained in employment generated by road construction and maintenance; again especially if the technology chosen is employment intensive. SEACAP also carried our surveys to obtain the views of rural people on the various technologies that were being trialed.

In retrospect, these surveys should have preceded the infrastructure works. A better approach is to start with a socio-cultural and socio-economic analysis of the project area so as to secure a better understanding of the role and status of women in the project area. In so doing a sound strategy for the inclusion the needs of women into the program could have been established.

The SEACAP surveys found the following information with a gender dimension:

- 100% of interviewees, irrespective of sex, said that there is no discrimination against women[9];
- The content of female labour in RRST was only 13%;
- All female community members and female road users expressed their desire for employment in road construction;
- Thua Thien, Hue, has the highest rate of female labour in RRST at 30%. They do the same work and get the same wages as male workers;
- In Tien Giang, road work is considered too heavy for women, and only 10% of the workforce is female. They are employed in lighter activities such as weaving the mesh for bamboo and steel reinforced concrete;
- In Dong Thap, the contractor did not hire any female workers;
- One woman worker in Phó Léc, Thua Thien, Hue provided these insights:
    - She is a local farmer;
    - She had been employed by the contractor for 3.5 months;
    - She could work 8 to 10 hours per day all week long;
    - She was able to do every work activity required by the contractor;

[9] There seems to be a contradiction between having a situation of “no discrimination” and women, while reportedly wanting to work, representing a small percentage of the workforce. This is considered to be a lack of clarity by the interviewer in describing what was meant by discrimination.

- Regarding the issue of equality of work and pay, she said there was “not a big difference”;
- Previously she earned VND20,000 (USD 1.15)/day by collecting fire wood;
- On the road construction she made VND30,000 (USD 1.72) /day;
- She was:
    - Happy with the job;
    - Wished that there would be more work for her in future; and,
    - Wished that the wages would be paid on time. - The timely payment of wages is a chronic problem for Vietnamese contractors.

Based upon the RRST surveys the following observations and recommendations were made:

- A requirement of the program is that the local people, especially the poor, women, and ethnic minorities, get substantial benefits through their employment in road construction. In particular it was recommended that:
    - There should be strict instructions from the project to this effect;
    - There should be appropriate specifications in the contract document that ensure that the contractors would:
        - Completely abide by the national labour laws;
        - Use as much local workforce as possible;
        - Attach special importance to the employment of women and ethnic minorities;
        - Not use under age labour; and,
        - Pay the same wages to male and female for the same work.

Additional recommendations not found in this study could include:

- Relevant protocol on HIV/AIDS; and
- Training and capacity building specifically for women to improve the opportunities in the workplace.

Community Participation in Rural Transport, Contribution and Participation Issues in Vietnam[10]

Women say their lives have improved because of better rural roads. They no longer need to carry heavy loads. More women deliver their babies in the health clinic instead of at home. Travelling to hospitals, markets and schools has significantly improved in terms of comfort, time and costs.

SEACAP also carried out a study on the community participation in the RT program in Vietnam. Emerging from this study were a number of issues with a gender dimension.

Local taxes and maintenance burden

In order to finance the maintenance of the newly constructed roads the local governments are permitted to impose taxes on households in terms of cash, and/or in-kind contributions of labour and materials. The amounts and arrangements vary per locality.

In Vinh Long, people contribute cash based on the area of paddy land. Poor people without paddy land are exempt.

In Phu Tho, the total costs of village road rehabilitation are divided by the number of beneficiaries, including children and old people. This implies higher taxes for larger families. There are no exemption policies for the poor in Phu Tho. It is generally perceived that the poor use and benefit from the roads like anyone else.

The impacts of these contributions are difficult to assess and require more research. In general local people welcome road projects and the manifold benefits rural roads bring. However women can be placed in a very difficult position during times when income is scarce.

Impact of tax-contribution on the poor

There was a substantial group of poor households that were either unable to pay off their outstanding tax levy after the completion of a village road project, or unable to provide cash investments for the much wanted rehabilitation project. For example in Hoa Hiep commune, this figure is estimated at 20-30% of all households.

The first group needed to borrow money against high interest rates from money lenders in order to pay off their debts. If not, commune authorities could refuse certain essential services to this group.

In several instances much needed road improvements were not approved because the communities were too poor to provide the local contribution.

[10] SEACAP 15, Community Participation in Rural Transport, Contribution and Participation issues in Vietnam - http://www.seacap-info.org/?mod=home&act=pdesc&pid=17

Clearly the payment of these new taxes was a higher burden on women and it is therefore understandable that all communities expected a high return on their Tax “investment”.

Findings on community participation in RT projects

Community participation is limited in government funded rural road projects. There are no participation mechanisms. There is little information sharing at the project preparation stage. It is at this stage that local people were requested to clear the road site or donate their land. In most interviews, the local people were unable to provide basic information about projects in their locality.

Local people “participate” in the sense that they work as paid labourers on these projects. Contractors hire both local men and women from poor households to work in road construction, and both are paid an equal amount of money per day. There have however, been some reported incidents of coerced labour mainly of the poorer members of a community.

Findings on community participation in village road project with local contribution

In contrast to RT funded road projects, there is active participation by local people in the rehabilitation of village roads. But not all people participate equally. It was claimed that women, because they lack knowledge about technical issues, and poor people, due to their low status and limited knowledge, tend to have a “lower voice” in meetings.

The impression was that the selection criteria for project supervision favoured men and officers, rather than women and the poor. It was thought that women and the poor did not have the training or capacity for the supervision duties.

Decisions were made at village level meetings. All households are required to be represented. Decisions are made by raising hands. Women, however, said they have limited influence in these meetings because roads are considered to be a “male topic”.

This situation highlights the need for specialist socio-cultural and socio-economic expert inputs to the design of rural transport programs. Capacity building for women to take on supervisory roles is needed as well. The relevant skills can be quickly acquired and women are no less capable in learning than are men, given the opportunity. Taking this one step further, in the UNDP/ILO Infrastructure project in Cambodia in the 1990s, free literacy and numeracy classes were offered to all workers engaged in the project at the work site before the daily construction started. Women took advantage of this opportunity in large numbers.

Findings on community participation in rural road maintenance

In both provinces studied, maintenance of village roads was carried out “voluntarily” by local people. Each household is allocated a section of the road. In case of inadequate maintenance, the commune will sanction those responsible by halting service delivery to them.

In Vinh Long, each slab of a concrete road has the name of the household responsible for its maintenance inscribed in it. This enables people to know who is responsible for which section of the road. The area of paddy land the household uses determines the length of the road section.

In Phu Tho, local people apply team work in maintenance. Every six months, or at the beginning of each year, people clear road sides and do maintenance. Their work is considered to be a social contribution. This applies for residents from 18 years old to 60 for men and to 55 for women.

It was found wages from working on the roads were very important to women.

SEACAP studies show that there are a range of ways in which local authorities calculate the fees and contributions. The following table illustrates some of the assessments:

Table 3.1: Type and amount of annual contributions in Vinh Long

Type of contribution/year	Amount	Remarks
Tax on house	11 kg paddy per house	
Annual land use tax for paddy fields	8kg/1000m2	Exempted for Khmer hhs since 2002
Annual land use tax for fruit trees	8kg/1000m2	Exempted for Khmer hhs since 2002
Irrigation fee	8 kg/1000m2	
Rural transport development fee	8 kg/1000m2	Exempted for poor hhs without land
Contribution for concrete slab village road	VND200.000 -400.000 /1000m2	Exempted for poor hhs without land
Compulsory labour per person per household (MOLISA)	10 days or VND 80.000	Exempted for: Khmer hhs since 2002; pregnant/breastfeeding women
Voluntary labour contributions	Flexible; rural roads (site clearance, maintenance)	
School/education	Variable: VND 400.000 (amount is indicative)	This fee depends on the number of children per household that go to school and their level of schooling
Storm/flood prevention/support to flood victims	VND 10.000/year	
National security fee	VND 24.000/ year/ household	
Membership fees of mass organisations	VND 6000/person	
Charity funds for the poor, war victims, Agent Orange victims	Flexible	

Source: SEACAP 15 analysis

Compulsory labour contribution to rural roads. Compulsory labour was required for each man between the ages of 18-45 years and for each woman between the ages of 18-35 years. They must provide ten workdays or pay VND 80,000 on an annual basis. Households consisting of one member only and poor

households are exempted. Women who are pregnant or breastfeeding are not required to donate labour.

The study found that women from female headed households had difficulty with heavy roadwork. They could however exchange heavy tasks for lighter agricultural tasks with male members of the village. Female headed households said they found it difficult to make the rural transport contributions but they still managed to do so.

While the International Labour Organization (ILO) considers "voluntary labour" for community works is justified in lieu of taxes, the ILO's position is that it is an entirely different story when any work is carried out as a "Public Work" which benefits the nation as a whole and not mainly a local community. In this case the ILO believes that labour should be paid at the market rate or the minimum wage whichever is the higher and these provisions need to be spelled out in special labour clauses to the road building or road maintenance contracts.

Inappropriate compensation.

Some poor households lost all their paddy land to the construction of a RT project commune road. They were supposed to be appropriately compensated in cash, but this did not happen. The study found these people currently have to borrow land from relatives and or work for other people.

One woman in Buong village Vinh Tien, Phu Tho claimed "*My family lost more than 600 sqm of cultivated area. I want to be compensated by land, but there is no reserve land for us according to the commune. I get only VND 600,000 for compensation. Since that day, we are even hungrier than before and I have to work for other houses for money. I recommend that there should be appropriate compensation for taking land for road, particularly poor household should be compensated with other land for their production*."

This again highlights the need for a multi-disciplinary team approach to developing the project operational framework. These basic issues, such as compensation, need to be transparently and clearly spelled out in project contract documentation well before work commences.

Research into the Role of the Private Sector in Rural Transport[11]

A policy of Vietnam's Ministry of Transport (MoT) is to use the private sector to carry out road construction work. In the context of the Rural Transport Project 2 (RT2), SEACAP investigated the implications of this policy. These investigations included a consideration of equity and targeting concerns.

The investigations found that the:

[11] Research into the Role of the Private Sector in Rural Transport – Vietnam, SEACAP 14, May 2005 - http://www.seacap-info.org/?mod=home&act=pdesc&pid=16

- Contracting, consulting, engineering and the RT2 program in general are overwhelmingly “male domains”.
- The labour provided by both men and women are paid equally.
- Women make up a larger proportion of the lowest paid workers.
- Actual wages paid fluctuate with the season, and the local livelihood activities, and are about 40-50% of the billing rate.
- Contractors prefer to employ people who have more experience in roadworks to reduce supervision costs and for quality reasons. This puts more remote, poor and vulnerable people in less in demand for labour and if they are selected, their wages are set much lower.

The study makes the following observation and recommendation with a gender dimension:

- To enable equal opportunities for women requires a shift in cultural preferences about the division of labour. It is highly likely that women’s participation will depend primarily on family connections for the foreseeable future.
- Women should be empowered as supervisors in works, asset protection and services (including the monitoring of wages and passenger fares).

In addition to the recommendations of the report, ideally a goal of 50% of training opportunities and posts should be set aside for women on these projects. This can practically be achieved by means of appropriate clauses in the contract documents.

Time - Distance Studies[12]

In order to better understand rural transport and mobility, time-distance surveys are often carried out. Time and distance studies are used to understand the local people’s transport and mobility needs. The results of these surveys are analyzed to determine what interventions are justified.

These surveys often rely upon an interview approach. This type of survey is faster and less expensive to carry out than physical measurements. However, rural people often have perceptions of the time and distance relationships which do not necessarily correspond to what is found when actual measurements are done. These inaccuracies misrepresent the true needs of the rural people and can lead to decisions on rural transport and mobility investments which may not achieve the desired results.

In support of the World Bank’s efforts to develop transport indicators SEACAP, carried out a series of studies in Cambodia, Laos and Vietnam. The purpose of

[12] SEACAP 22, Time and distance studies - http://www.seacap-info.org/?mod=home&act=pdesc&pid=23

these studies was to improve the rural transport statistical analysis methods. This was done through a direct interview approach with the participation of local people to:

(i) analyze and assess the travelling pattern of the rural women and men, and

(ii) review the reliability of the data.

The SEACAP studies physically measured the time and distance patterns of rural people and compared these with what the same people stated when interviewed. It was found that there were significant discrepancies between what was estimated by participants and measured. This indicates the need for calibration of studies that rely on interview only.

The studies revealed gender related trends in Cambodia and Vietnam:

- In Cambodia, men surveyed tended to overestimate distance.
- In Vietnam the estimates of time and distance by women surveyed were less accurate than men.

The size of the studies was limited however and would need to be scaled up for more meaningful analysis. They do never the less illustrate the importance of understanding the gender dimension and the respective roles and responsibilities of men and women in their daily routines in accessing water, markets, fuel and social services.

Cambodian Upstream Project

The ILO "Technical Assistance to the Labour-based Rural Infrastructure Programme" commonly referred to as the Upstream Project was implemented in Cambodia from 1998 to 2002. This project was one of the main predecessors to, and set the stage for, SEACAP.

It emphasized the use of employment–intensive (EI) technology. Employment-Intensive technology includes a range of labour-intensity from Labour-Intensive technology (LIT[13]) (labour and hand-tools only), to Labour-based-Appropriate technology (LBAT[14]) which ensures minimum technical standards with the use of medium sized equipment and optimal levels of labour, to Modified Equipment-based technology (MEBT[15]) where work is done in a conventional equipment-based manner but with selected activities undertaken using more labour-enhanced work methods.

[13] LIT has limited application to activities such as clearing, greening and drainage as without equipment only basic earthmoving activities should be involved.

[14] LBAT has wide application especially in the construction and maintenance of rural roads and irrigation schemes as it can achieve minimum technical standards

[15] MEBT should be the basic way all heavy engineering projects are undertaken in developing countries: i.e. using labour wherever it is economically and technically feasible considering its low cost and ready availability and the opportunity for labour to be engaged on productivity based arrangement.

The project had the overall objective of improving productive rural infrastructure and generating employment to poor rural people. The project directly implemented rural infrastructure works including rural roads, irrigation and the clearing and cleaning of the environs of the Angkor Park World Heritage site. The purpose of implementing these works was to develop practices that would lead to optimizing employment opportunities for rural women and men in infrastructure works. Practical ways to integrate fair wages and equitable opportunity were demonstrated by the project. In addition an important element of this project was the provision of target opportunities for women in technical training and in postings to the project as supervisors, technicians and engineers.

Equal Opportunity: The gender balance for local employment was 43% female and 57% male in 1999. By 2002, the figures were almost equal. This gradual positive change was due to a clause in the contract developed by the Project, which required contractors to select equal numbers of men and women.

The Project also introduced selection by lottery. This equitable method of labour selection is carried out by listing the names of all interested community members who are able to take part in the works. Names are then drawn at random until the required number of workers is chosen. This method can be adjusted to achieve gender and employment distribution objectives. Task work based payment systems equitably accommodate the wide variety of strengths and work speeds of men and women.

Worker selection methods like the lottery were effective even when employers were Small Scale Contractors (SSC). It is necessary to make this a contractual obligation for SSC. If adequate controls are in place, SSC will pay workers the minimum established wage rates.

The Impact of Wage Earnings on Workers

The Upstream Project carried out socio-economic studies related on impacts that labour-based infrastructure work generate. In one study (Zweers and Kassie) the following findings have a bearing on gender:

- The workers on the rural road works were local farmers with 43% of them being women;
- There is little income making opportunity during the dry season, when these projects were implemented. This is especially the case for women. The income earned is extremely important to these people;
- They appreciated the equality in opportunity and pay for both women and men;
- A slight majority of workers – 51% preferred to be paid in cash only. Others preferred a combination of cash and food. Women tended to prefer the food-for-work option more than men. This was preferred because the price of food was high in more remote villages do to higher transport costs in the then prevailing post-conflict environment;

- The income earned by all workers was reportedly handed over to the wife or female head of household. The wages were then spent on necessities such as food, clothing, medicine, debt repayment, and education;
- Women tended to direct expenditures towards medicine while men spent more on debt repayment;

The work on the road placed a heavier burden on women than men. 73% of women reported that they still needed to carry out the family care and house work in addition to working on the road. Women reported that it was difficult for them to cope under this workload. While only 54% of men reported other work apart from the road[16].

Household Travel and Transport Analysis

Another socio-economic study (Rozemuller et al) looked at the travel and transport characteristics of households in eight villages with both relatively poor and better accessibility in Siem Reap Province of Cambodia. The following are findings with a gender dimension:

- The study revealed that the travel and transport burden is fairly equally divided between women and men. This is similar to findings in Laos;
- Women make more trips and carry more weight. Their trips tend to be shorter in both time and distance. Women made most of their trips for water collecting, to the market and to the health center as well as tending vegetables. Women spend 2 hours and 18 minutes travelling 7,650m per day; and,
- Men travel longer, farther and expend relatively more transport effort. Men make most of their trips for fishing, and rice cultivation. On average men spend 3 hours and 21 minutes traveling and cover 12,050m per day.

Rural Inland Water Transport

Many Cambodians rely on water transport throughout the year but especially in the rainy season. This study (Vella, D.) looked at the role of water transport in facilitating the mobility and access to essential goods and services for rural people in May Chreiy – a floating village in Siem Reap Province. Different patterns of mobility and transport were observed by gender:

- Men travel often from village to village. They tend to operate motorized boats. Men travel an average of 14.5km/day by boat. They tend to collect firewood and fish by boat more than women.

[16] To address the additional burden for women the ILO projects in Cambodia engaged labour on a “task-work” basis so that women and men could start their work early and avoid the heat of mid-day and go home when their “tasks” were finished. This arrangement certainly suited women, however had the project also provided crèche facilities then their inputs could have been even greater.

- Women travel more frequently by boat within the village. They tend to operate non-motorized boats. Most of the trips were to market. They spend about five hours per day traveling by boat.

Afghanistan National Emergency Employment Programme (NEEP)

The Ministry of Rural Rehabilitation and Development (MRRD) carried out the USD 170 million NEEP project. While this project was not in the GMS, it was closely linked to the Upstream Project and SEACAP. NEEP rehabilitated tertiary roads using the experience and approaches from the Upstream and SEACAP programs. The World Bank financed and ILO and UNOPS technically supported project aimed to generate approximately 3.5 million workdays of employment. It had several outputs including encouraging women in general to participate in the paid employment. In particular destitute women and female heads of households were targets.

NEEP generated approximately 2,200,000 workdays of skilled and unskilled labor days of employment. However, only 1.5% of this employment was women. Was this the limit for the employment potential of women or the thin edge of the local cultural wedge towards expanding women's employment?

ILO studies in Islamic countries globally have been able to establish that women working under Islamic law are permitted to carry out virtually all building and construction works except climbing ladders and descending into well or working underground.

Afghanistan however remains a society closely controlled by men and while progress has been made in improving rights for women, universal rights of equality for women in Afghanistan is still a distant dream.

4. Gender and Rural Transport Research

There is overwhelming evidence that improvements in rural access and transport benefit the rural poor. However these improvements also bring potential problems and risks in varying degrees to different members of the rural communities. These problems and risks may include the trafficking of women and children; HIV/AIDs and other kinds of transmitted diseases, and road safety. Rural people may lack the coping mechanisms to deal with the new environment brought with rural transport improvements.

Gender equity starts however from the basic provisions of a country's Constitution or Bill of Rights. Those rights are then further enhanced through the UN Declaration of Human Rights and the various International Conventions to which a country is a party, such as International Labour Conventions (ILC) and those relating to children.

The specific findings from the projects described above suggest that there are five broad areas in which gender differentials are significant considerations. These are:

i. Rural accessibility and transport policy and strategy;

ii. Rural transport's role in support of achieving the national MDGs or other national development goals;

iii. Planning and targeting of transport investments; and,

iv. Employment in construction and maintenance with equal opportunities for women and men.

v. Capacity building and the realization of equal opportunity and economic potential.

Developing sound knowledge bases on these topics is important for influencing decisions that will take full account of the gender dimension. Continued research is needed to develop the knowledge base. The following could be some of the research subjects within these topics:

i. <u>Rural transport policy and strategy.</u>

These are key documents as they set out the priority framework for the development and management of the rural transport program. Gender concerns need to be integrated into these documents.

Potential research topics could include:

a. Review the gender dimension in rural transport policy and strategy.

Assess the status of the rural transport policies and strategies in the GMS countries. Questions to be answered:

- Do proven models of good practice exist? If so, can they be adopted into the policies and strategies a particular country?
- Are they effectively used for guiding the development and management of rural transport?
- Do they adequately address gender issues?
- What steps could be taken to improve them?
- Are there knowledge gaps associated with the identified gender issues? What are they and how can they be filled?

b. Is there international agreement on what issues should be included in rural transport policy and strategy?

ii. <u>Rural transport's role in support of achieving the national MDGs or other national development goals;</u>

a. What MDGs or other national objectives are dependent for success on having good rural access and transport?

b. Are the links between these goals and the quality of rural transport established, understood and receiving adequate investment or support? What are knowledge gaps and opportunities in this regard?

iii. <u>Planning and Targeting of Transport Investments.</u>

There appear to be differing trends in certain aspects in the travel, transport and mobility needs and demands of men and women in a specific society. Findings from the projects above suggest that many women were mainly concerned with moving around close to home, to markets and to health centers. It also appears that ethnicity of the women may be a factor in these patterns. Men traveled further from the home. Clear understanding of these patterns is important for achieving the desired impacts of rural access and transport development.

For example transport planners often conceive development in terms of reaching a village from the provincial center. But the needs of women, children and perhaps disabled may be better met by also including the development of in-village infrastructure such as the upgrading of safe paths to markets and schools.

At issue is ensuring that the right kind of transport infrastructure is designed and constructed that maximizes the benefits to the rural

people. For example in Laos interviews[17] with women in some villages (Mon-Khmer group) revealed that they would have preferred improved paths to the water taps which are currently very slippery and dangerous instead of an access road which they will only use maybe twice a year.

Considerations of both equal opportunity and the economic potential of women need to be comprehensively considered in developing rural access. Field research in Laos found that some women don't realize their potential. This realization was an important factor in the ADB Shifting Cultivation Stabilization Project. The project achieved 400% increase in women's income. The project activities included roads and credit. The road ensured that the women can bring out their weaving directly to the market and not rely on middle men who control the price. The credit also helped women to do more weaving as they are able to purchase larger quantities of silk.

Potential research topics could include:

a. Are rural transport and mobility needs of women and men adequately quantified and understood in the GMS countries?
b. Are the potential benefits of meeting these needs quantified and understood?
c. Are the different needs of women, children and men reflected in the targeting of rural transport and mobility investments?
d. What are the longer term potential economic benefits that women can gain from improvements in rural transport? How can they be made aware of them and position themselves to realize these potential benefits.

iv. <u>Employment in Construction and Maintenance with equal opportunities for women and men</u>

It is clear that the employment and wages from rural transport infrastructure works is extremely important to rural people, especially to women. Potential research topics involving a multi-disciplinary team of engineers, economists and sociologists could include:

a. A gender audit of the technical Line Ministries to determine policies and practice and the number and sex of engineers, planners and economists involved in positions of responsibility and the profiles of

[17] Field work for the Khammouane Infrastructure Background Paper and the Khammouane Development Report and Strategy under the Governance Reform and Livelihood Strengthening Program (GPARLSP) in August 2006.

those now at University to see what the gender equity trend lines look like.

b. Assessing whether the implementers – generally contractors – are using employment-intensive or employment reducing technologies and equal opportunities for engaging women in their road construction and maintenance?

c. Reviewing the relevant laws and statutes governing employment in the context of rural infrastructure works? Are they understood and followed? In particular are laws related to women's employment such as equal pay for equal work etc practically used?

d. Assessing whether contracts allow/encourage the use of local labour? What specifications need to be amended/ added?

e. Determining whether employment features in the national development policies and strategies? If not, how can it be included in these guiding documents?

f. Determining the positive impacts and benefits of optimizing employment on the rural transport infrastructure works? (this must also mean avoiding "make-work" schemes)

v. <u>Capacity building and the realization of equal opportunity and economic potential.</u>

The best voice for the advancement of women's needs in rural access and transport is from the women themselves. In this review a number of instances were sited where women are at a disadvantage. For example in Vietnam, discussions on improvements of the rural roads were considered a "male topic". This meant that women were unable to input to the discussion. In the construction of the rural transport infrastructure, women are employed in the lowest labour positions because they were seen as lacking knowledge or capacity to take on more senior roles such as site supervision. To overcome this capacity building is needed. The following are some of the research topics that could be considered in this context:

a. What are the social cultural perceptions of economists, engineers, technicians and workers that inhibit equal opportunities for women in construction? How can these be changed?

b. What are the training needs for women to be able to supervise rural transport infrastructure construction?

c. Assessing whether women workers prefer to have women supervisors of construction works.

d. Assess the curricula and teaching materials for development infrastructure works courses at tertiary education establishments to ensure that local resource based approaches, socio-economic and gender issues are fully accommodated.

5. Conclusions

The outputs, findings and experience from SEACAP and related projects suggest that:

- Strategies and resources are needed to take research into practice and these are best undertaken through a multi-disciplinary team of specialists;
- Rural transport development:
  - Has important gender dimensions, which need to be addressed at all of the development stages;
  - Further research is justified. The results of which should be disaggregated by gender, age and ethnicity. The key areas for research identified are:
    - Rural transport policy and strategy;
    - Rural transport's role in support of achieving the national MDGs or other national development goals through the optimization of local labour and resources;
    - Consultative Planning before targeting of transport investments to ensure the most cost effective type of improved pedestrian or vehicular access;
    - Employment optimization in construction and maintenance; and,
    - The need to treat Capacity building more seriously and creatively for the realization of equal opportunity and economic potential.
- While not developed in the discussions above, the needs of children, persons with disabilities, and other potentially disadvantaged people are often overlooked and should be integrated as much as gender into the rural transport development programs.
- Likewise there is a real need for improving Occupational Safety and Health (OSH) and HIV/AIDS awareness for all workers engaged on transport related projects

6. References

ADB, “Lao PDR: Gender, Poverty and the MDGs”, Manila, 2004

ADB, “Lao PDR: Shifting Cultivation Stabilization Pilot Project Completion Report”, Manila, 2007.

Azam, M. I., “Afghanistan National Emergency Employment Program for Rural Access (NEEPRA) - FACT SHEET, UNOPS”, April 2005

Cook, Dr., J., Petts, R., “RRSR, RRST-1 Trials Construction Report, SEACAP 1”, July 2006

Lucas, Dr. Simon, DFID/WB Infrastructure Specialist, Presentation “Rural transport - Why we need to know more”, SEACAP Practitioners Meeting, 13th September 200, Hanoi. http://www.seacap-info.org/uploads/File/DF%2030%20Key%20note%20address.ppt

Mekong Economics. “Research into the Role of the Private Sector in Rural Transport – Vietnam, SEACAP 14, May 2005. http://www.seacap-info.org/uploads/File/VOLUME%201-%20Final%20-%20180505%20-%20ENG.pdf

Mekong Economics: “Community Participation in Rural Transport, Contribution and Participation Issues in Vietnam, SEACAP 15”, May 2005. http://www.seacap-info.org/uploads/File/SEACAP%2015%20final%20report.pdf

Ministry of Rural Development, Royal Government of Cambodia, “Draft Rural Roads Policy” September 2007. http://www.seacap-info.org/uploads/File/Rural%20Road%20Policy_final_September%202007.pdf

Ministry of Rural Development, Royal Government of Cambodia, “Draft Strategic Plan for Rural Roads” August, 2007. http://www.seacap-info.org/uploads/File/Rural%20Road%20Strategic%20Plan%20Final%20120607.pdf

Mu, R., van de Walle, Dominique, “World Bank, Policy Research Working Paper 4340, Rural Roads and Poor Area Development in Vietnam”, August 2007.

Paarlberg, R., “IHT - It's not the price that causes hunger”, April 2008

Rozemuller, B., Khun, S., Yan, S.. ” Household Travel and Transport Analysis, Cambodian Upstream Project Socio-Economic Series #3”, September 2000.

Sakko, C., J., “Access, Transport, and Local Economic Development, The socio-economic impact of Labour-based rural infrastructure rehabilitation and maintenance in Siem Reap, Cambodia”, 1999.

Salter, D., “ILO Upstream Project, Terminal Report” July 2004

Shone, M. The Planning, design and implementation of employment intensive investment programmes ; Case Study Cambodia, 1997

Shone, M., Jobs after war, Ch 11; Labour-based infrastructure rebuilding, 2003

Transport Development and Strategy Institute, Ministry of Transport, Vietnam, “UPDATING OF THE RURAL TRANSPORT DEVELOPMENT STRATEGY IN VIETNAM”, December 2006. http://www.seacap-info.org/uploads/File/Final%20Report_Main%20Report.pdf

Vella, D., “Rural Inland Water Transport, Cambodian Upstream Project Socio-Economic Series #4”, January 2001.

Warr, P., “Road Improvement and Poverty Reduction in Laos”, February 2007.

Zweers, J., Kassie, A., “Employment in ILO Supported Road Construction and Maintenance – The Impact of Wage Earning on Workers, Cambodia Upstream Project, Socio-Economic Series #2”, August 2000.