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EMPLOYMENT IN ILO SUPPORTED ROAD CONSTRUCTION AND MAINTENANCE

The Impact of Wage Earning on Workers

Judith Zweers & Alebachew Kassie
Center for Advanced Study

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By

Judith Zweers ***Alebachew Kassie***

Center for Advanced Study
No. 85, Road 141
Phnom Penh
Tel/Fax: 855-23-214 494
Contact person:
Dr. Hean Sokhom, President
E-mail: cas@forum.org.kh

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Executive Summary

Purpose of the study
In June and July 2000 a field study was carried out among 109 road construction and maintenance workers in Siem Reap province. The ILO Upstream sponsored study aimed to estimate the impact of wage earnings from labour based rural infrastructure works on employees and their families.

Scope of the study
Fifty-seven percent of the workers interviewed were male, 43 percent were female. Most were rural farmers who were busy on their farms during the rainy season, but have difficulty finding other income opportunities during the dry season. There are almost no other income opportunities available in rural areas and it is especially difficult for women to find off-farm employment. Rural road construction and maintenance works like those sponsored by the ILO Upstream Project, are one of the few wage earning possibilities with equal opportunity and equal pay for men and women. For rural farmers, labour based works can fill an important need for extra income, especially during the dry season.

Recruitment
The infrastructure works were carried out by local small-scale contractors. Site supervisors play a major role in the recruitment and direct management of workers. Most workers heard about the job opportunity through neighbours and friends who knew one of the supervisors (58%). Another 20 percent of workers were directly recruited by the supervisor. Fourteen percent heard about the work exclusively through public announcements and seven percent through village meetings. This indicates the importance of connections in recruitment. A lottery system was not used for selection. Most workers were between 17 and 25 years old (64%), reflecting the emphasis on young, strong people in the selection process.

Income groups
A majority of 54 percent of the workers interviewed belonged to poor families, 30 percent belonged to slightly better-off families and 16 percent to the poorest families. Factors that may limit opportunities for the poorest to gain employment are not knowing the supervisor and the high family member dependency ratio among this group. The study found a dependency ratio of 1.04 for the poorest workers, against 0.34 for the better-off workers. Labour based construction works are likely to attract workers from households with relatively more productive household members and these are mainly the poor and better-off groups.

Wage labour and voluntary labour
The study concluded, from workers' interviews, that development approaches insisting upon voluntary labour in Siem Reap Province often encourage forced labour. Forced labour further limited the poorest families' opportunities to gain wage income, as they had to contribute labour to the village chief for communal works. Most workers felt very negative about contributing labour under these conditions.

Working conditions
The present working conditions under contractors were compared with the previous government direct implementation system. Many workers felt that working conditions were

harder and working times stricter under contractors.[1] However, there were few complaints about current working conditions or payment. A majority of 51 percent preferred payment in cash, 44 percent preferred payment in cash and kind or entirely in kind. Cash payment was preferred because cash is easier to carry than rice or because of negative experiences with payment in kind. Workers who preferred payment in kind mostly lived far from a market and needed rice. Several workers indicated a preference for payment in kind to avoid the temptation to spend the income on entertainment.

Use of earnings

In all cases the wages earned were handed over to the wife or the female head of household. This money was pooled with other incomes. Wages were mostly spent on basic items, firstly food, secondly clothing, thirdly medicine and fourthly on education. Food was an important expenditure for all wealth groups. The poorest were more likely to buy basic food items like rice, salt, oil and fish paste, whereas the better-off buy more nutritious food like fish and meat. Spending on medicines was ranked second by the poorest, whereas the better-off spent very little on medicines. This reflects their better health compared with the poorest and is probably related to their more nutritious food intake. Debt repayment was an important spending for the poor. The most important difference between men and women is revealed by the third priority expenditure - debt repayment for men and medicines for women. This suggests that women are mainly in charge of health care spending, while men are responsible for debt repayment.

Expenditure ranking per wealth category and gender

Sample	**1st Ranking**	**2nd Ranking**	**3rd Ranking**	**4th Ranking**
Total	Food	Clothing	Medicines	Education
Better-off	Food	Clothing	Education	Farm tools
Poor	Food	Clothing	Medicines	Debt repayment
Poorest	Food	Medicines	Education	*
Men	Food	Clothing	Debt repayment	Education
Women	Food	Clothing	Medicines	Education

* There was no clear fourth ranking for the poorest category.

Little salary remained for productive investment. Only the better-off seemed to use the income in a more productive manner, as their fourth expenditure was on farm tools. However, the fact that the incomes were mainly spent on food demonstrates the importance of extra income for the survival of poor rural farmers in Siem Reap province during the dry season.

[1] Direct implementation refers to the previous system, where infrastructure works were carried out by the public sector and not by local contractors.

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Introduction

Rationale for the study

Since 1999, The International Labour Organisation (ILO) has promoted labour based appropriate technologies (LBAT) for improving and maintaining essential infrastructure in Cambodia. LBAT is an effective means of creating employment among the rural poor. The Government of Cambodia, through the Ministry of Rural Development (MRD), has adopted LBAT to build rural roads in Cambodia. Since 1999, small-scale local contractors have implemented rural infrastructure works in Siem Reap Province under the ILO Upstream Project.

In the past few years, information has been systematically gathered on the project's physical achievements i.e. workdays created, kilometres of road rehabilitated and maintained, technical training provided, etc. Traffic counts and socio-economic studies have demonstrated the positive impact of improved roads. Labour based construction of rural roads is considered to be an important mechanism for improving the quality of life in rural societies. However, little information is available on the impact of wages generated through the ILO Upstream supported rural road construction and maintenance activities on the workers and their families.

The ILO Upstream Project contracted the Center for Advanced Study (CAS) to conduct a qualitative study among the men and women currently employed in the ILO Upstream rehabilitation and maintenance of rural roads in Siem Reap province. The aim was to evaluate the impact of the employment on workers, their families and their communities. CAS was asked to investigate the following specific topics:

- Worker selection in the villages (how it works, who decides, etc.).
- Descriptions of labourers: age, gender, socio-economic position.
- Reason/motivation for working in the project.
- Length of time employed.
- Payment (preferences for cash/kind/combination, how they view free or voluntary labour).
- Use of earned wages (consumption, investment in productive or non-productive assets, gender differences).
- Other long-term benefits from the work (acquired skills which made it easier to find other work, contacts, income used to send children to school or start a small business).
- Other work activities.
- "Opportunity work" (what kind of work would they do if not involved in this work/what alternative earnings were possible?).
- If no alternative earnings were possible, what would have been the consequences for the labourers and their families? (Selling livestock, borrowing money, migrating?).
- Influence of seasons.

CAS was asked to compare two distinct groups of workers - road construction workers and road maintenance workers. Road construction workers are employed full-time for a relatively short period until the project is completed. Road maintenance workers are employed part-time (i.e. ten days a month) for a longer term. The difference between the impact of short-term versus long-term, but part-time, employment was one of the issues to be investigated.

CAS was asked to make the sample representative of the gender composition of the workforce - 49 percent female and 51 percent male.
The study was to provide:

- A detailed description of the employment aspects of the LBAT project.
- Profiles of the different work types of labourers highlighting their perceptions of the significance of the work.
- A thorough analysis of the impact – short and long term – of the LBAT work on the rural Cambodians involved.

Methodology
This research combined structured and semi-structured interviews based on an interview guide. The first, structured part of the interview focused on household composition, productive activities, cash income and socio-economic status. The second part consisted of semi-structured, open questions focusing on the motivation to seek wage earning opportunities, the selection process, working conditions, the impact of wage earning on the household and workers' opinions on voluntary versus wage labour.

The interview guide was developed before fieldwork began, but was slightly adapted during the research as new issues appeared. The interview guide indicated the questions and topics to be covered. However, the order of the topics was left to the interviewer. The interview guide allowed both teams to cover the same topics in approximately the same depth. The research was conducted by two teams over a one month period in June and July 2000. Each team consisted of a male and a female socio-economic researcher. Both teams interviewed 55 workers and conducted several interviews with local authorities, contractors, village chiefs and villagers. A total of 111 workers were interviewed, although two interviews had to be discarded because of incomplete data.

One team consisted of Ms. Chan Kanha, B.A. and Mr. Ros Visoth, B.A. The second team consisted of Ms. Nguon Sokunthea, B.A. and Mr. Khat Sokha, B.A. All researchers have extensive experience in surveys and qualitative interviewing in Cambodian rural areas. Ms. Judith Zweers, M.A. led the teams in the first two weeks of field research. Mr. Alebachew Kassie, M.A. led the teams during the second half of the research. Both team leaders are attached to the Center for Advanced Study as UN Volunteers and have worked in Cambodia on several other qualitative studies.

The researchers presented themselves to the workers as members of an independent research organisation. They explained that they were from a neutral, independent organisation not connected to any party involved in road construction and maintenance, such as the supervisor, the contractor, the government or the ILO Upstream Project. They assured the informants of strict confidentiality and anonymity and explained that the purpose of the research was to obtain worker's experiences and views, to better understand their life situation and the impact of the project on their lives.

Before interviewing workers, the teams interviewed the contractors and introduced themselves to the supervisors. The teams explained to the supervisors that they wanted a general overview of workers at all sites and that no work site in particular would be mentioned. However, several supervisors were reluctant to co-operate, as the teams took workers away from the job (interviews took from one to one and a half hours) and rumours were circulating that the team would be interviewing workers for up to three months.

Supervisors also seemed to fear evaluation of their work performance, although this was not the intention. Interviewing took place near the construction site, but far enough from the supervisor to allow interviewees to speak freely.

Several interviews were conducted in villages surrounding the construction sites to elicit more information and opinions on the selection process. Five interviews were conducted with village chiefs and villagers around Puok Market and five were conducted in villages along the road to Paek Sneng. More interviews should have been conducted in the villages, but this was not possible due to time constraints. More time than anticipated was spent interviewing construction and maintenance workers. Although it seems easy to find workers to interview, this took longer than expected. It was sometimes difficult to find a supervisor who would allow the team to take one of his workers. Since the team tried to spread interviewing activities over different sites (trying not to take more than two workers from one site on the same day), travelling took longer than anticipated. It was also difficult to find road maintenance workers. Since their designated stretch of road was often far from their homes, people in the village often did not know who was maintaining the road. Moreover, the workers were often absent from their homes.

It was not always easy to find enough women to interview. The team did not interview 50 percent men and 50 percent women, as intended. At some work sites, there were almost no women. According to the supervisors, this was due to the nature of the work in the current stage of construction. Overall, the team found fewer workers than ILO Upstream Project data led them to expect. This was due to the current stage of the infrastructure works, which required fewer workers.

Labour Based Appropriate Technology (LBAT)

Introduction

Labour based appropriate technology refers to a flexible and optimal use of labour as the predominant resource, while ensuring cost-effectiveness and quality. The aim is not just to create a maximum number of jobs, but to combine optimum use of labour with cost-effectiveness and quality of work.[1]

Numerous studies conducted by ILO and the World Bank have demonstrated the importance of LBAT in rural infrastructure development. When many under or unemployed people are available, where low wages are standard and where high costs for modern equipment cannot be borne, LBAT is the most cost-effective way to build and maintain good quality rural infrastructure.

ILO and LBAT in Cambodia

From late 1992 until 1999 the ILO implemented an employment generation programme in Cambodia, initially funded by the UNDP. Later the Swedish International Development Agency (Sida) and the Royal Government of the Netherlands also provided financial input. The programme consisted of labour based rural infrastructure works in the four northwestern provinces of Pursat, Battambang, Banteay Meanchey and Siem Reap and road maintenance activities in Takeo and Kandal Provinces. Unemployment and underemployment were major problems in the four northwestern provinces, where many people (refugees, internally displaced people and soldiers) resettled after the 1993 elections. The infrastructure works consisted of rehabilitation and maintenance of roads and irrigation systems and the clearing and cleaning of the Angkor sites. The last activity was taken over by APSARA in 1998. In 1999, UNDP and The Royal Government of the Netherlands decided to discontinue support. As a result, project activities were continued only in Siem Reap province: the activities in other provinces were terminated. Road construction and maintenance in Siem Reap was transferred to the ILO Upstream Project.

The main objectives of the former programme were to: 1) provide immediate employment to rural Cambodians; 2) rehabilitate and maintain essential infrastructure; and 3) assist the provincial government in developing a rural infrastructure maintenance strategy and strengthen the LBAT capacity of the Department of Rural Development. In the short term, labour based works would provide direct employment to a large number of people. In the long term project outputs (roads, irrigation) would improve access to markets and other facilities (health, education) and improve agriculture.

The project has improved access to schools and other facilities. This led to higher land values and accelerated economic growth through the construction of houses, new businesses and improved prices for agricultural products through better access to markets. The Upstream Project has recorded average daily traffic figures and found considerable increases in traffic volume and changed transport modes after road rehabilitation.

Since 1992, the project has generated 3.3 million workdays of direct employment through constructing and maintaining 550 kilometres of rural roads. In that period, the LBAT system was further developed. A 1998 project review by Sida concluded that LBAT is an efficient instrument for generating employment in rural infrastructure and that good quality rural roads

[1] Tajgman, D. and Veen, J. de, 1998

can be constructed and maintained through LBAT. LBAT was not easy to introduce in Cambodia. According to a 1994 ILO report, Cambodians held a poor opinion of labour intensive methods. Many had bad experiences with labour intensive projects in the seventies and, to a lesser extent, in the eighties. Forced labour, bad working conditions and the failure of large infrastructure and agriculture works left many with a negative image of labour intensive methods. However, the Sida review found that the employment generation project of ILO/UNDP "demonstrated the cost effectiveness and sustainability of labour based technology and re-established its credibility in Cambodia."[2] LBAT provides at least three times the employment of equipment based work.[3]

The ILO UPSTREAM Project

Until 1999 the infrastructure projects concentrated on demonstrating the feasibility of LBAT in Cambodia, and were managed directly through the Ministry of Rural Development with support from ILO. The Upstream Project focuses more on the sustainability of LBAT in Cambodia. The primary focus of the Upstream Project is institutional capacity building in the public and private sectors, which entails the provision of technical and capital assistance to the Royal Government of Cambodia's rural infrastructure development programme and strengthening the private sector to successfully implement LBAT based infrastructure works. Previously, infrastructure works were carried out by the public sector under "force account." The projects are now implemented by local, small-scale contractors.

Poverty alleviation is the main objective of the ILO-Upstream Project - to improve the economic and social living standards of the rural poor. The immediate objectives are to:[4]

1. Strengthen central Government capacity to develop, co-ordinate, implement and monitor a national rural infrastructure development programme, maximising the use of LBAT and local resources

2. Strengthen the capacity of provincial authorities to plan, design, implement and monitor road improvement and maintenance works

3. Develop the capacity of the domestic private sector construction industry to rehabilitate and maintain rural roads through the efficient use of LBAT

4. Improve and maintain access to and within the areas of the project determined in relation to the economic and social activities of the respective areas of influence

5. Increase the availability of trained manpower for both the public and private sectors

6. Increase direct employment opportunities through the rehabilitation and maintenance of selected roads in the provinces and enhance the conditions for sustainable long-term employment creation in agriculture, road rehabilitation and maintenance

7. Create an environment supporting sustainable and equitable LBAT infrastructure works with particular attention to (maintenance) funding, environment, gender and disadvantaged groups and road safety.

[2] UNDP/ILO, 1994

[3] Agreed minutes of the Annual Consultation between MRD, Sida and ILO on the cooperation on rural roads held in Phnom Penh, 12-17 of March 2000

[4] The objectives are a summary of the objectives stated in Project Document 1997, p. 35

Under objective six it is specified that procedures be introduced to ensure that recruitment and employment conditions are fair and that equal opportunity is given to men and women. "Through training and close monitoring the project will ensure that the procedures regulating all labour aspects are strictly adhered to by contractors."[5] Working conditions, timely wage payment and security for the workers in general may be easier to guarantee under a system of force account. These conditions have to be ensured through contractual procedures and adequate monitoring when working with private contractors.[6]

From the above, it is clear that the focus has shifted from employment generation, the primary goal in the early nineties, to employment generation and improving access in rural areas in the mid-nineties, to enhancing the sustainability of LBAT infrastructure works in the future. However, employment generation is still one of the immediate objectives.

Documented information about the project at the workers' level

Although poverty alleviation through employment generation has always been one of the immediate objectives, little information is available on the actual impact of this objective. Data are available on workdays created, but little is known about how workers perceive the employment opportunity through road construction and rehabilitation or its influence on their daily lives.

Employment opportunities in the rural areas were found to be almost non-existent except for farm employment in the rainy season. Under the force account procedures, the project stressed employing local people in the project site area - those living within three kilometres of the construction site. The tasks set for workers to complete in a day could be finished in four to six hours, enabling workers to attend to domestic or farming duties, or take on other employment. The project actively promoted equal employment opportunities for men and women, particularly for posts as road supervisor or group leader. However, it was difficult to engage women for those positions: less than 20 percent of the technical supervisory staff were women. Physically disabled people were also targeted, although the opportunities to provide them with work turned out to be limited.[7]

Three main changes have taken place for construction workers in the past few years: a change in the selection system, a change in mode of payment and a change in the direct responsibility for implementing construction and maintenance. Previously, workers were selected by nearby village and commune leaders. However, this often led to favouritism, where those close to the leaders had more chance of being selected. An experiment was carried out in 1998 - a lottery system. This was considered a success and in late 1998 all workers were selected by lottery. Before lotteries were introduced, women comprised around 45 percent of the work force and it was anticipated that this could rise to 50 percent with the use of lotteries.[8] However, there were disadvantages to this system. More workers chosen by lottery left the site soon after starting work, when they realised that this was not the work they were expecting. Lotteries also attracted less experienced workers. More training was required in the beginning, as fewer workers had LBAT experience. When local authorities select workers they are more likely to be selected for their ability and for their experience with LBAT techniques. However, the advantages of the lottery system - equal opportunity, preventing forced and

[5] Project Document 1997, p. 44
[6] Tajgman, D. and Veen, J. de, 1998
[7] Schulz, R. and Huyssteen, S. van, 1999
[8] UNDP/ILO 1999

under-age labour, a fair chance for anyone willing to work and the dissemination of job opportunities and LBAT[9] - outweighed these initial problems.

Payment methods were changed with the transition from force account to sub-contracting. Previously, workers were paid in cash, in kind, or in a combination of both, according to the circumstances. Payment in kind was organised by the World Food Programme. With the transition to sub-contracting the decision was made to stop payment in kind and pay wages entirely in cash.

Organisation of the construction and maintenance work

At the time of the research, four local contractors were constructing a bamboo reinforced concrete road around Puok Market, rehabilitating a laterite road to Paek Sneng, constructing two causeways (on the road to Paek Sneng) and maintaining 134 kilometres of rural roads built under force account. Each contractor was responsible for one kilometre of road at Puok Market, two kilometres of laterite road and 30 to 36 kilometres of road maintenance. Two contractors were also responsible for the construction of a new causeway.

Each construction site (i.e. stretch of road) was directly supervised by at least one supervisor. Each contractor had two sites of laterite road rehabilitation, with a supervisor at each site. Ten to 50 workers were employed over each kilometre, overseen by a supervisor.

[9] Ibid.

Workers' Demographic Information

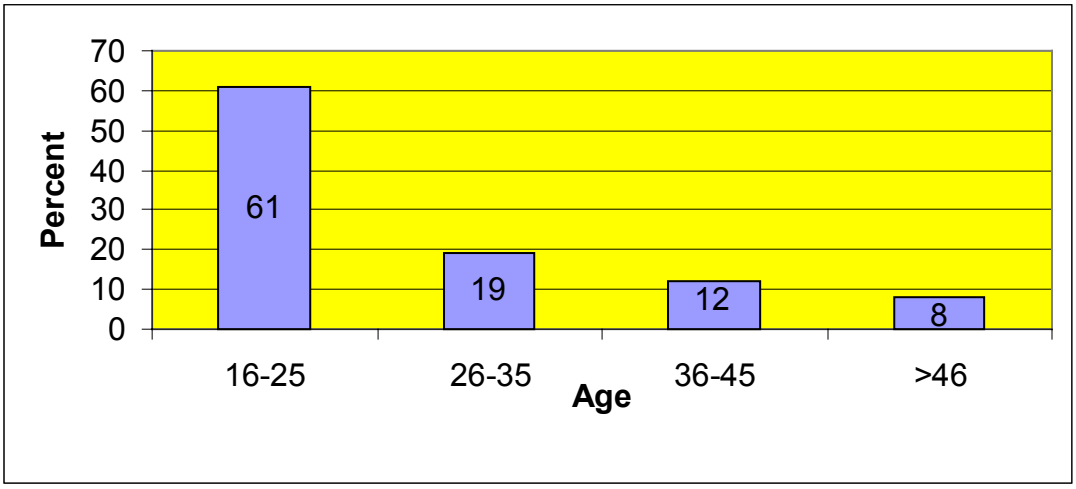
Gender, age, household size and distance from home to work

At the time of research, fewer workers than expected were employed due to the less labour intensive nature of the road construction. The first, labour intensive stage of earth moving was already finished by the time the research team arrived. Moreover, some works had not yet started. In general, there seemed to be a wide fluctuation in the number of workers employed.

In total, the team interviewed 109 workers, 57 percent were men and 43 percent women. On the road to Paek Sneng, the team interviewed 59 road rehabilitation workers and five people working on a causeway. At Puok Market 24 workers working on bamboo reinforced concrete construction were interviewed. Twenty-one people working on road maintenance were also interviewed.

The age composition of workers is summarised in Figure 1. Most workers were between 17 and 25 years old, this was 61 percent of the total sample. Nineteen percent were aged between 26 and 35, 12 percent between 36 and 45 and only eight percent were older than 46. Road maintenance workers showed a different pattern. Most were between 17 and 25 years old, or above 46 (the majority). Both patterns reflect the difference in the selection of road construction workers compared to road maintenance workers. This issue is explored later in the report.

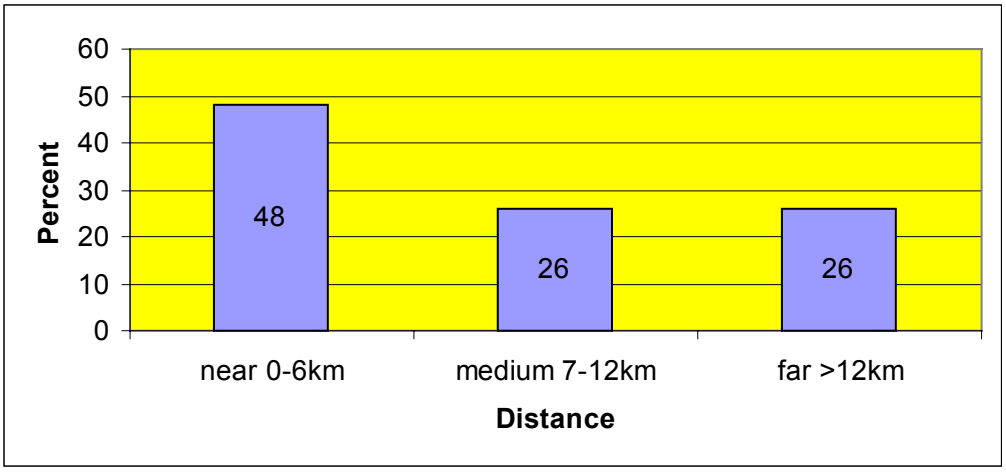
Figure 1: Workers' Ages



In general the respondents came from large families. The average household size was six household members (including the interviewee) and ranged from two to 12 members.

The workers at the road construction sites came from very different communes and districts (see Figure 2). Forty-eight percent lived close to the working site (0 to six kilometres), 26 percent lived seven to 12 kilometres away and 26 percent came from villages 13 kilometres or more from the construction site. Some workers lived up to 30 kilometres away.

Figure 2: Distance from home to work*



* Road maintenance workers were not included

Wealth ranking

One of the most challenging tasks was to rank respondents according to wealth. This is difficult, as no single indicator can be used to define the three main wealth categories of "poorest," "poor," and "better-off." Moreover, the study was entirely dependent on the workers' accounts from interviews at the construction site. If interviewed at home, other household members' views could have been used and observation of the living conditions would have added to the information considerably. For this research, the team used only information provided by the workers.

The amount of land owned by the household, or the land per household member, is a common wealth indicator. However, it can be a misleading indicator. A family can own three hectares of land, which is largely useless due to the presence of factors such as forests, landmines or flooding. Conversely, a family with a small plot of land may have a relatively large output because of a well-functioning irrigation system and a double harvest. The size of land holdings therefore, is only one indicator - rice output per year is another. Household size and the number of dependants are indicators of need, which also must be considered. However, since most workers were interviewed at the construction site, they were unable to check their estimation of the household's rice output with other household members. Most interviewees were young people who did not really know the production output of their household. A household survey would have resulted in more reliable estimates.

Other important indicators are family assets, like a television or the possession of cows and buffaloes. A final indicator in rural areas is housing material. The poorest families are likely to live in a palm leaf house, a slightly richer family may live under a tin roof or even have wooden walls, and a family that lives in a wooden house with tiles is likely to be better-off. For this research, the team used all these indicators to estimate the wealth ranking of the workers' households - land size/output/household size, assets (television, motorbike, buffaloes) and housing material (palm leaves, tin, wood, tiles).

By combining these indicators, the research team tried to assess whether families belonged to the poorest, the poor or the better-off groups. However, since these are not clear-cut indicators, the ranking should be considered a rough estimate. Families with a television were often the families that owned a motorbike, buffaloes and lived under a tiled roof. Those

families were considered "better-off." Landless families or those with very small plots of land, large households and small outputs usually owned no assets or animals apart from chickens. These were considered the "poorest" families. Families who did not fit either of these categories were considered "poor" (see Table 1).

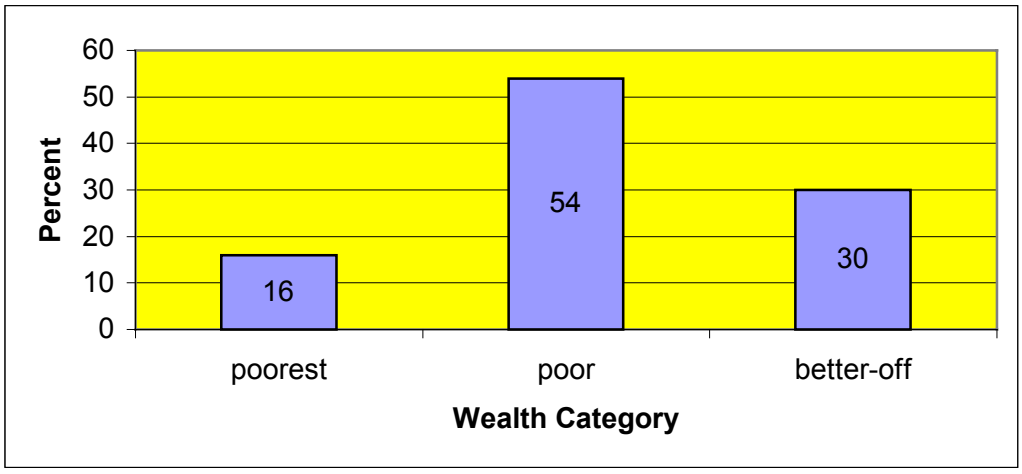
Table 1: Average profiles of the three wealth categories*

Indicators	Poorest	Poor	Better-off
Housing	Palm leaves	Mix of palm leaves, tin and wood	Wood and tiles
Land / rice production	Little or no land No other regular sources of income	Rice production meets or just below household needs	Surplus rice production
Animals	No animals other than chickens	Chicken/ducks, pigs, often cows	Chicken/ducks, pigs, cows and buffaloes
Assets	No assets	Bicycle, radio, sometimes ox-cart or boat	Radio, television, motorbike, sometimes ox-cart or boat

* Some workers did not fit the profiles exactly. In those cases, assets and animals were the determining factors.

Based on these indicators, the research team found that the majority of respondents (54%) belonged to the poor group. Thirty percent belonged to the better-off and 16 percent were in the poorest category (see Figure 3). It is important to stress that this only a comparative wealth ranking of respondents. For example, the differences between the poor and the better-off may in reality not always be that large.[10]

Figure 3: Wealth ranking of workers



However, there are clear differences in Age-Dependency Ratios between the three different wealth categories. The Age-Dependency Ratio is the number of dependants (children aged 0-14 and people older than 65 years) per productive adult. According to the 1998 General

[10] There is little information available on percentages of different wealth groups in Cambodia. The World Bank uses two poverty lines for Cambodia: a food poverty line of 2100 calories per capita per day and a poverty line based on basic non-food spending requirements (Prescott and Pradhan, 1997). It is not possible to compare the wealth ranking of this study with these poverty lines, as different indicators were used.

Population Census, the Age-Dependency Ratio for Siem Reap Province is 0.92. This means that on the average, one productive household member supports 0.92 dependants. This is very high compared to other rural areas in Cambodia - the Age-Dependency Ratio for the rural population on average is 0.86. The Age-Dependency Ratio for the 109 workers in the study sample was much lower at 0.61, although the study also included those unable to work due to disability or chronic illness. This suggests that ILO Upstream supported road construction mainly attracts workers from households with a larger number of productive household members. Households with a high Age-Dependency Ratio are often the poorer and poorest households. Clear differences between the three wealth categories in the sample support this hypothesis (see Table 2).

Table 2: Age-Dependency Ratio by wealth category

	Poorest	Poor	Better-off	Total
Percent of sample	16%	54%	30%	100%
Age-Dependency Ratio	1.05	0.70	0.34	0.61

The poorest households have slightly more dependent than productive household members, whereas the better-off have approximately three times as many productive household members as dependants. The choice to seek extra wage labour opportunities probably largely reflects the households' productive capacity. Although the poorest households may need extra income the most, they are less able to seek extra income opportunities.

Motivation for seeking work

For most workers, the opportunities produced by the ILO Upstream Project supported road construction came before rice farming had started. Almost all interviewees reported that they are busy in their rice fields during the rainy season and therefore do not seek extra wage earning opportunities during that period. However, in the dry season there is little farm work and people seek other jobs. Many respondents use this time to earn extra income to make up for a shortage in rice yields, to complement their diet with fish and other sources of protein, or to earn cash for other purposes. The section on payment discusses the impact of cash earnings in more detail.

There do not seem to be many employment alternatives in the region. About 25 percent of respondents mentioned employment opportunities in Siem Reap town in hotel, house or school construction. However, this is usually short-term (usually not more than ten days), is often too far away for rural people and requires hard and heavy work. However, salaries can be high - 6,000 to 10,000 riel per day for men and 2,500 to 5,000 riel per day for women. Many women knew of construction employment opportunities in Siem Reap, but reported having no connections in Siem Reap town and thus having little chance of being recruited.

Despite higher wages in urban construction, respondents preferred the present road construction work, as it was more secure (workers are recruited for longer) and was easier work. For many, it was closer to home, making it easier to combine with domestic duties like fetching water, collecting firewood or tending fruit and vegetable gardens.

Men mentioned alternatives like fishing (which is difficult in the dry season), collecting and selling firewood and clearing forests - all activities earning 2,000 to 4,000 riel per day. A few men reported seeking employment at the border (Poipet) carrying goods. Earnings can be as

high as 7,000 riel per day, but it is far away, the work is heavy and workers are prone to exploitation.[11]

Women also reported selling firewood as an alternative. Other possibilities mentioned were: weaving, making baskets, cleaning sugar cane, selling cakes and noodles, preparing palm leaves for house construction and selling vegetables. Daily earnings from these activities range from 1,000 to 3,000 riel per day.

Although most workers were recruited during the dry season, many had to return to their fields before the road construction works were completed. The rainy season started early in 2000 and people had to begin preparing their fields. It was obvious that most rural farmers only seek extra wage earning opportunities in the dry season. Therefore labour based public works may seriously compete with farming activities during the rainy season.

[11] Chan Sophal and So Sovannarith, 1999

Selection, Working Conditions and Supervision

Recruitment and selection of workers

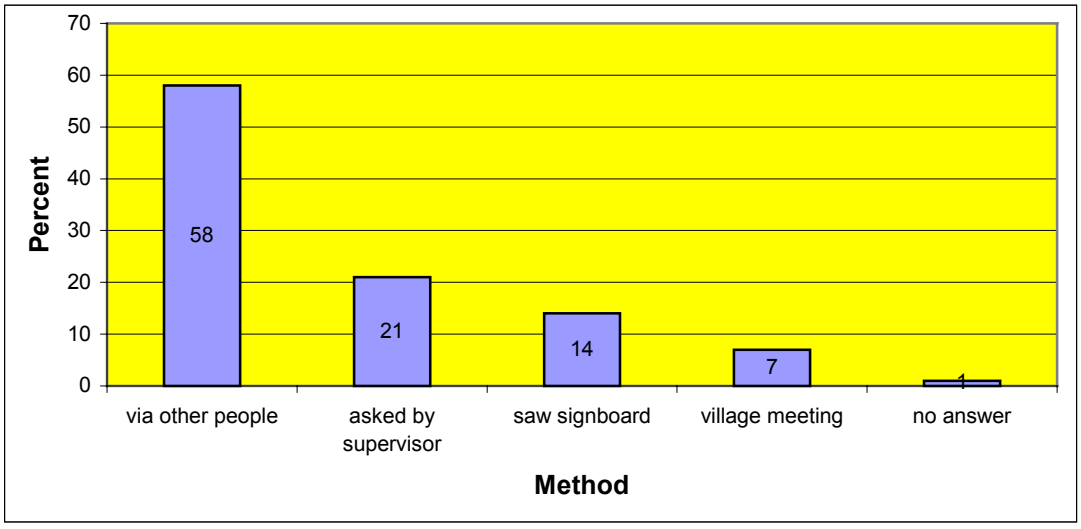
Theoretically, workers are recruited through a lottery system. In the villages surrounding the construction site people must be informed so that anyone can apply. The ILO Upstream Project began this system in late 1998 to provide equal employment opportunities at road construction sites. The contract with the sub-contractors specifies that:

"... the Contractor is expected to select the labour force by lottery. Prior to recruiting, the Contractor should inform people in the surrounding area at least 5 days before the selection takes place by announcing through a public announcement system and by displaying posters in public places of the target villages (any person within 3 km. of the work site)."

Most sites at Puok Market and along the road to Paek Sneng were provided with information boards displaying the recruitment and selection procedures. However, only a few respondents had seen them. Some had seen them, but were illiterate. Others had seen the boards but reported that they were not interested in "that recruitment." They applied because they knew the supervisor or one of the group leaders at the site, implying that they would not apply if this were not the case. This explains why only 14 percent of respondents were passers-by who saw the signboard and applied without knowing anybody. Most workers (58%) heard about the job opportunity through family and friends who knew either the supervisor or one of the group leaders. Many workers came from the same villages as the supervisors and group leaders. It is worth noting that 21 percent of the workers interviewed were asked by the supervisor directly. These were usually skilled workers, more or less permanently employed, going from one construction site to another. The study found several cases where the supervisor asked former workers directly and then asked them to find other workers. The recruitment and selection of workers is entirely organised by the supervisors.

Finally, seven percent had heard about the employment opportunity through village meetings. The study found no evidence that village meetings had taken place around Puok Market. Interviews with several village chiefs indicated that district authorities had informed them about the road construction, but not about recruitment procedures and selection of workers. However, village meetings were held in villages along the road to Paek Sneng.

Figure 4: How were people informed?



Most respondents felt that recruitment and selection was fair: anyone could apply and there was no favouritism. However, several respondents replied that it certainly "helps" to know the supervisor. As supervisors organise selection, it would be expected that workforce selection would differ between sites. However, the study found no evidence for this. It seemed that anybody could apply. If there were more applicants than jobs, the rule seemed to be "who comes first, gets the job." Many respondents reported that supervisors preferred strong, young people, preferably with experience in road construction. This was supported by the high percentage of workers aged between 17 and 25 years old. None of the interviewees were younger than 17 years and most were between 20 and 25 years. Most informants reported that there seemed to be one basic criterion for selection - a minimum age of 20 years. In one case, a supervisor had asked workers to recruit others from their villages, as there were not yet enough workers. Many returned with younger relatives between 15 and 18 years old. However, the work was too heavy for them and they left or were fired by the supervisor.

There were problems with recruitment at several construction sites, especially those that began working later in the year, when people were busy in their rice fields due to the early start of the rainy season. In these cases, all applicants meeting the minimum age were given the chance to work. Many applicants were asked to work for one or two days before they were accepted. However, other construction sites competing for workers in the area may also have caused recruitment difficulties (see the section on wage labour and voluntary labour).

It was clear that lotteries had not taken place. In some cases, this could be explained by the lack of workers due to the early start of the rainy season. At Puok Market there may have been a lack of workers as this area is relatively prosperous due to the proximity of the market. The market provides numerous possibilities for people living nearby to earn cash income. Therefore, they may have been less interested in road construction. In other cases, there seemed to have been many applicants. It would have been interesting to trace unsuccessful applicants and solicit their opinions on the recruitment and selection procedures. However, as people came from different villages, this was not possible in the limited time available. It is interesting that even the contractors believed that lotteries had taken place when this had not been the case. This underlines the vital role of the supervisor in recruitment and selection.

Recruitment and selection was organised differently for road maintenance. Supervisors selected those who had worked on the roads' construction and proved to be good workers. Older men were mostly selected, which explains the higher proportion of older workers in road maintenance. According to respondents, older people were selected because they were considered more serious than younger workers. Another reason was that younger people often leave the village seeking jobs or entertainment and older people do not. In several cases, an older man was selected and then asked to select others. Obviously, those selected were from the same age group. However, young people are increasingly maintaining roads as they inherit or take over the job from their parents.

One contractor indicated that women were mostly recruited for road maintenance, as it is easier to combine this job with their domestic tasks than other jobs. However, we found no evidence of this. On the contrary, more men than women seemed to be employed in road maintenance.

Working conditions

As in any working environment, perceptions of working conditions differed considerably from worker to worker. What one worker finds easy, another may find difficult. Although the majority (59%) reported that the work was not too hard or too difficult, 20 percent complained of too much work. Another 21 percent found it hard in the beginning, but adapted to the work conditions and no longer reported problems. There was no clear difference between men and women in this regard.

Several informants had worked on ILO supported road construction at the time of force account. Although some saw no difference, most reported that the work had become heavier because more had to be completed in one day (e.g. $6m^3$ of gravelling per day compared to $5m^3$ under force account).

Longer working times were a frequent complaint from those informants comparing the previous working conditions. In the past, people often finished their tasks by four p.m. or earlier. Working times are now less flexible - from seven to 11 a.m. and from one to five p.m. Workers who were allowed to leave after their task was completed, were sometimes asked to stay after 5 p.m. to do overtime. The majority of workers reported that they were not allowed to leave earlier even if their task was finished. They would be given another task, asked to help others who had not finished, or asked to wait until 5 p.m. Nineteen workers commented that they were not allowed to leave earlier but sometimes had to stay longer to do overtime. It seemed that some supervisors worked on the basis of task work (with the possibility of leaving when the daily task was completed, or overtime if this was not the case). Others seemed to work on an eight-hour day with fixed working times. In several cases however, a mixture of the two systems was used.

Almost 80 percent of informants were positive about their supervisors and group leaders. Some supervisors were particularly liked for joking with the workers, buying cakes and cigarettes for the workers, or for joining in themselves. Twenty percent complained that supervisors were too strict and blamed the workers too often. More women than men complained about the supervision.

Working times for road maintenance also seemed quite strict. The supervisor checked the road and told the workers exactly what to do, to fill holes, plant grass on the shoulders, etc. Maintenance workers worked from Monday to Friday for two weeks - a total 10 days per month. Working times were the same as for road construction - from seven to 11 a.m. and from one to five p.m. On working days, the supervisor passes the road once or twice a day to check the work. Most informants indicated that they never went home early, even after finishing their tasks, because leaving without permission could mean a cut in salary. Working times seemed to be stricter for some informants than for others. Again, it depended on the supervisor.

Road maintenance workers frequently complained of a lack of equipment and material. The biggest problem seemed to be the lack of laterite. Many workers reported not having been supplied with laterite for months and contractors confirmed this. Some workers did not seem to care whether there was enough laterite. Workers reported that there was other maintenance work to do, while others disagreed - if there is no material, there is no work and if there is no work, there is no pay. Unfortunately, workers' accounts on this issue were vague and conflicting. Therefore it was not possible to determine how often this happened.

Payment

Payment system

Salaries under the project ranged from 4,000 riel per day for unskilled workers (the minimum wage set by the Government of Cambodia), to 8,000 riel for highly skilled workers. Most informants reported earning 4,000 riel per day. More than 50 percent found their salary sufficient. Thirty percent reported that their salary was good compared with other jobs, but that it was not enough to live on. Eighteen percent found the salary too low.

Workers are usually paid every two weeks. Each fortnight, workers put their fingerprints on a paper stating their names, salary level and days worked. For administrative reasons, it takes around five days for workers to receive their salary. There seemed to be few problems with this system. Many workers reported not knowing what was written on the paper, but always checking the salary, which was usually correct. However, some workers did not understand why it took three weeks to receive the payment for two weeks. Some workers understood that this was for administrative reasons, others felt that their employer did this deliberately to "tie" workers to the construction site (i.e. by paying two weeks and "keeping" one week).

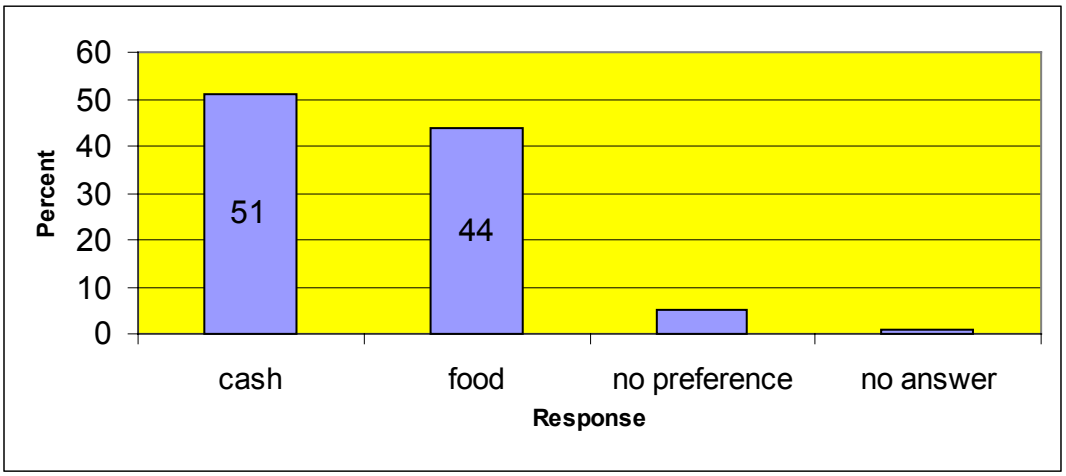
A few other problems were reported. Several workers commented that the supervisor "kept" half their salary to prevent them from leaving the site to return to their fields. They reported that they received payment only once a month for two weeks work. Both teams heard these comments from several informants at two different sites. However, other informants at the two sites reported no payment problems. Therefore, it is unclear whether this happened or whether there were misconceptions about payment delays. Several workers reported that the supervisor had indeed explained that he pays only half the salary to prevent people from leaving work.

Salary cuts were also reported. Although many informants mentioned that the supervisor had threatened to cut their salary, most said that it never occurred. However, in five cases workers reported cuts of 500 to 2,000 riel on a day. Reasons for salary cuts were bad work performance and leaving before five p.m. (although tasks were completed). While not common practice, cuts in salary seemed to occur at both road construction and road maintenance sites.

Preference for payment in cash or in kind

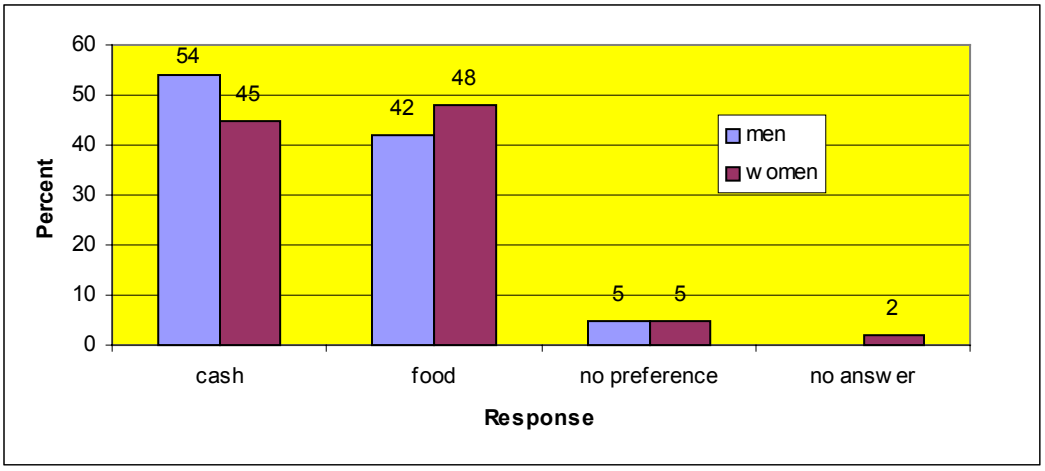
Under the force account system, workers were paid in cash, in kind (rice), or in a combination of both. Many informants had experience with payment in kind, either half in cash and half in kind through previous ILO supported road construction projects, or payment in kind (rice, canned fish, salt and oil) through World Food Program (WFP) Food-for-Work projects. The research teams asked informants to compare the different kinds of payment and explain which they preferred and why (see Figure 5 and Figure 6).

Figure 5: Preference for payment



A slight majority of 51 percent preferred payment in cash, among them more men than women. Fifty-four percent of the male respondents preferred cash – compared with 45 percent of female respondents.

Figure 6: Preference for payment by gender



The main reasons for preferring cash were:

- The possibility of buying what you want. Payment in kind often means payment in rice, whereas many respondents had enough rice and wanted to buy other food items, like fish. Cash is also preferred for purchasing items like alcohol, cigarettes and cake.
- Those who do not need rice will sell the rice in the market for cash.
- Those living far from the construction site often prefer cash because it is easier to carry.
- A few respondents mentioned the possibility of saving money or repaying debts.
- Some respondents who had experience with payment in kind commented that cash payment is easier and less likely to cause problems. Several respondents felt that payment in rice often leads to problems about the quantity owed. Others complained about delays in payment, which seem to be more common with payment in kind.

A large proportion of workers, 44 percent, preferred payment in kind, or a combination of the two. This was 48 percent for women and 42 percent for men. The main reasons for this were:

- Those who preferred payment in kind were often villagers who needed rice and lived far from the market. If paid in cash, they have to go to the market to buy rice and then transport it home. Some have to pay high transportation costs. Living in a village, it is easier to sell rice (if you need money) than to buy it.
- Several people mentioned the temptation to spend money for the wrong purposes (e.g. on cigarettes, alcohol, dancing and karaoke) as reasons for preferring payment in kind.

Around five percent did not have a clear preference for either mode of payment. Although the majority preferred cash, a large proportion preferred payment in kind. The higher preference for cash may partly reflect the high percentage of poor and better-off workers. A large majority of the poorest preferred food. Among the poor the preference is almost equal, whereas the better-off clearly prefer cash. If more workers from the poorest category were employed, the preference for payment in kind is likely to be higher.

Expenditure

One of the main purposes of the study was to explore the impact of wages earned through ILO Upstream supported road construction and maintenance on workers and their families. Informants were asked what happened to the money they earned and how it was spent.

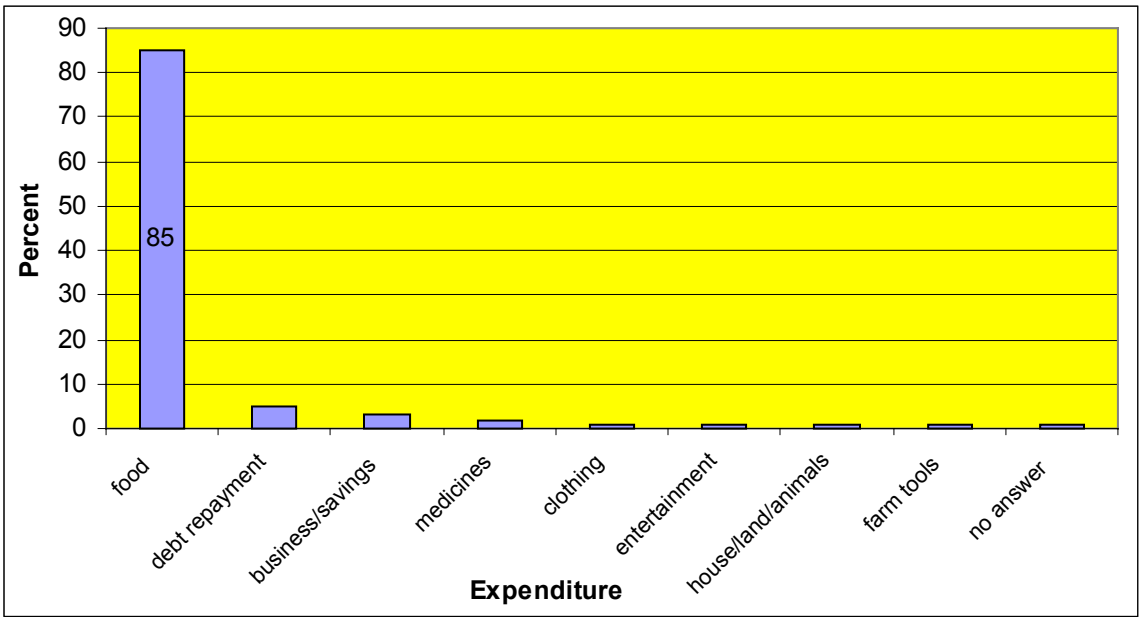
Only 15 respondents indicated that they spent income from road construction or maintenance differently to other incomes. Eight interviewees explained that the earnings from road construction were only intended to repay debts (while other earnings were intended for daily use). Three interviewees intended to save and/or invest this income. One interviewee planned to buy jewellery, which would serve as savings as it can be sold when cash is needed. One interviewee bought a bicycle to start a small business going to the lake to buy fish to sell at Puok market. Another interviewee intended to use the money to start a small wine production business. Two interviewees intended to buy medicines for sick relatives. One informant intended to spend the money entirely on education and others planned to spend it on cakes and entertainment.

The cash earned from road construction and maintenance is generally pooled with cash earnings from other sources, like weaving, selling firewood, small businesses, etc. The team therefore concentrated on expenditure patterns at the household level. Informants were asked to indicate the items their household spent money on and rank those items from the most important to the least important. This was not easy, as most interviews took place at the construction site. Most interviewees were not responsible for household expenditures, which made it difficult to rank expenditures. Moreover, cash income tended to be irregular, fluctuating widely according to season and work available. This made it difficult to get an accurate picture of expenditures. The team often had to adjust the rankings when new information came up during interviewing.

Most interviewees kept part of their salary and gave the remainder to the person in the household who controlled the finances. Many kept 10-20 percent of their salary for daily consumption of cigarettes and cakes and a few kept approximately 40 percent for their own use. Men tended to keep more, as they often consumed cigarettes and alcohol. Both women and men were quite outspoken about this issue. All informants indicated clear differences in male and female expenditures - men spend much more on cigarettes, alcohol and entertainment. The remaining salary was generally given to the wife or mother of the interviewee. In Cambodian households it is usually the wife who keeps the money and decides how it is spent, although decisions about large or exceptional expenditures are usually made with the head of household. In a few cases, an older sister or an aunt controlled the finances. Men only took on this role in three cases and these were in households without adult women.

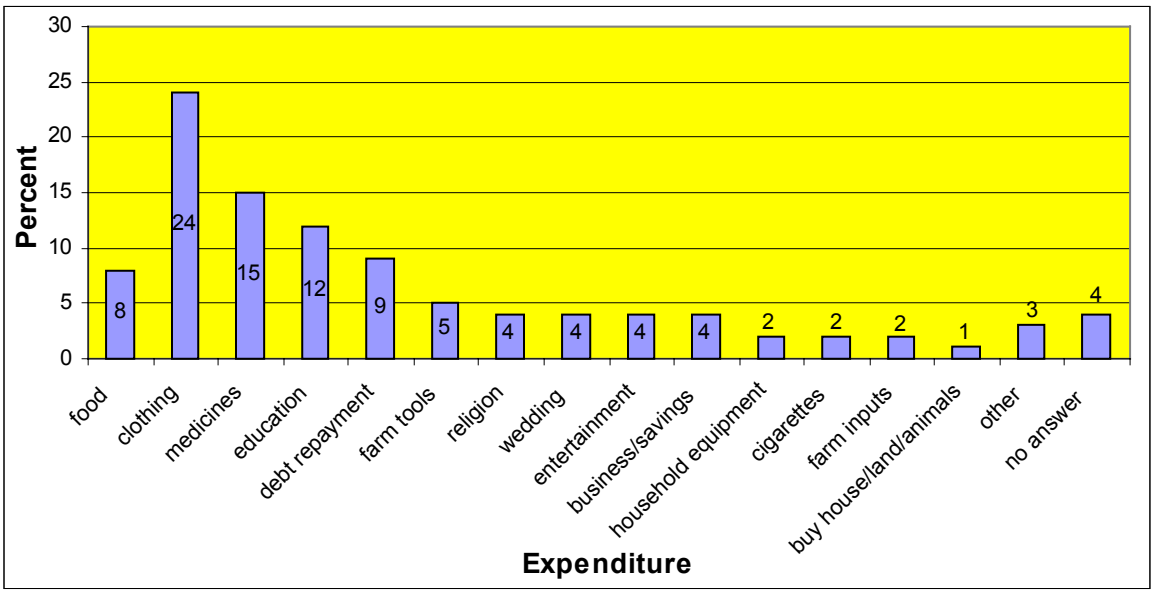
The majority of respondents ranked food as the first and most important expenditure (see Figure 7). There was little difference between the poorest, poor and better-off groups in this regard. For the poorest, expenditures on food were more likely to be on basic food items like rice, salt, oil and prahok (fermented fish paste). The poor and better-off were more likely to buy more expensive and nutritious food, like fresh or dried fish and meat.

Figure 7: First expenditure



Though respondents mainly agreed on the first expenditure, there were a variety of responses for the second expenditure (see Figure 8).

Figure 8: Second expenditure

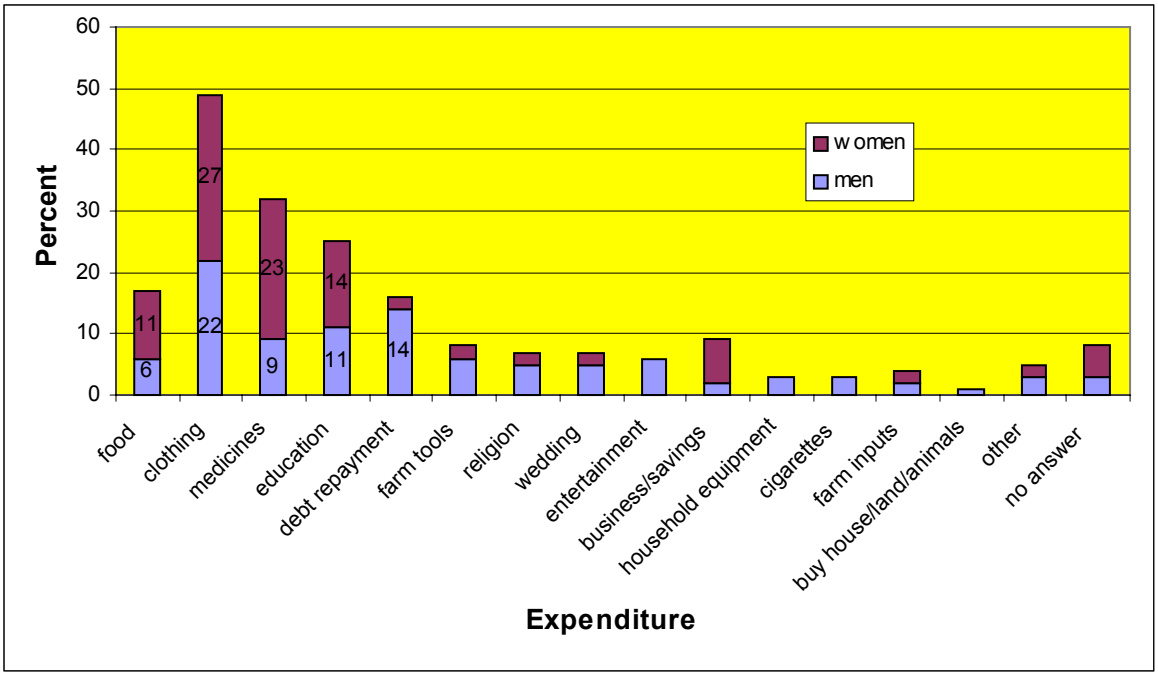


Clothing was the most common second expenditure (24%). Expenditure on medicines was next (15%), followed by education (12%) and debt repayment (9%).

It is worth examining the different answers of men and women. Although there was no difference in the first priority expenditure, this changed with the second expenditure. The most striking differences were in the categories of medicine and debt repayment. This is noteworthy, because respondents tried to rank expenditures for the whole household. Women ranked expenses for medicines much higher than men did (23% versus 9%). This may be

because women are responsible for finances and therefore know the real costs of medicines and medical services. However, it seems that debt repayments are exceptional expenditures that are mainly managed by men. Although 14 percent of male respondents mentioned debt repayment as the second priority expenditure in their households, this was only two percent for female respondents. Figure 9 shows the gender differences for the second expenditure.

Figure 9: Second expenditure by gender



The third and fourth expenditures show basically the same pattern. Medicines and education were the most important expenditures after food and clothing. Expenditures for other items were almost equally divided. Other expenditures mentioned from most frequent to least frequent were: business/savings, farm tools, religious activities, weddings, entertainment, farm inputs, cigarettes, household equipment and saving money to buy (back) house, land or cattle.

It is also worth examining differences between the three wealth categories, although it is difficult to compare the three groups because of the large differences in sample size. The poorest, poor and the better-off all mentioned food as the priority expenditure. The poorest did not rank clothing as an important expenditure. Clothing seemed to become a priority only when other basic priorities were satisfied, which were food, medicines and education. However, clothing was an important expenditure for both the poor and the better-off. Medicines were important expenditures for the poorest and the poor, though much less important for the better-off (only 3%). This suggests that the poorest and poor suffer worse living conditions and a poorer diet leading to higher rates of illness and higher medical expenses (see Table 3).

Table 3: Expenditure ranking by wealth category

Category	1st Ranking	2nd Ranking	3rd Ranking	4th Ranking
Better-off	Food	Clothing	Education	Farm tools
Poor	Food	Clothing	Medicines	Debt repayment
Poorest	Food	Medicines	Education	*

* There was no clear fourth ranking for the poorest category.

Overall, the study showed that little money was used for productive purposes, except for education. This supports the workers comments. They reported that salaries were good compared with other employment opportunities, but were still too low to make a difference to their lives. Every source of cash income is needed to meet basic needs. Only a few (mainly the better-off) were able to save money or make small business investments. For the better-off the third priority expenditure was education and the fourth was farm tools.

Road maintenance workers showed no major differences in expenditure compared to those working on road construction. Road maintenance workers receive a regular salary of 40,000 to 50,000 riel per month. Most said they were very pleased with this permanent job, although it was not enough to live on. However, as road maintenance takes only 10 days per month, it can easily be combined with domestic and farming tasks or with other job opportunities.

Other impacts of road construction work

Problems with household tasks
Most road construction workers had other work to do. These included tasks like caring for children or disabled household members, fetching water, collecting firewood, working in the rice field, gardening or looking after animals. Fifty-four percent of men reported other tasks besides road construction. For female workers this was 73 percent. To make time for road construction work, most workers asked family members to take over their domestic tasks. However, not all workers had family members who can replace them. In these cases, other solutions were sought (see Table 4).

Table 4: Solution for household and/or farm work*

Solution	Percentage
Replacement by family members	36.4%
Do the work before or after the daily road construction	27.3%
Hire labourers	3.4%
No solution needed	33.0%
Total	**100.0%**

* Road maintenance workers were not included, as they can easily combine tasks.

Several workers hired labourers to work in their rice fields. In one case a worker's decision to work on the road caused family conflict, as he was the only man in the family and was needed on the farm. However, he decided to work on the road and hire farm labourers instead. His first expenditure was on food, his second on cigarettes and entertainment.

For the poorest, working on road construction can have a large impact on the household, as it is usually difficult to arrange for one, and often the only, productive household member to leave the home. A young woman from the poorest wealth category, living with her sick mother, decided to hire labourers to do the rice farming. However, this left nobody to take care of her mother during the day. She had no other option, as she needed cash to pay for her mother's medical treatment. A widow with three small children combined different solutions. She hired labourers to plough her rice field (at 40,000 riel per year) and did the other farm work after returning from road construction. During the day, her ten year old daughter cared for the two younger children. Many workers rose early to work at home and on the farm before starting road construction work at seven a.m. Others did their domestic tasks after they finished work on the road. Those with domestic duties found it difficult to combine the tasks.

Employment opportunities for women
In general, it is not easy to find off-farm employment in rural areas. Most respondents reported difficulties finding wage earning opportunities. It is difficult for men and even more difficult for women. Although men are tied to the farm in the rainy season, they often have time for other work during the dry season. They attend to domestic tasks like fetching water and collecting firewood, but these tasks can be carried out at different times of the day. Women are more tied to their homes throughout the year caring for children and preparing meals. Women also often look after animals around the house like chickens, ducks and pigs. Nevertheless, many women try to earn extra income by making and selling baskets, weaving,

preparing palm leaves for house construction, etc. Their daily earnings are usually low - from 1,000 to an exceptional 3,000 riel per day.

There were few other employment opportunities for women. Many women knew about house and hotel construction jobs in Siem Reap town, but felt unable to get these jobs, as they lacked the connections in Siem Reap. We met many women who had worked on ILO and WFP supported road construction before, but no women reported other jobs. Other employment opportunities required mainly strong, skilled men. Labour based road construction provides one of the few employment opportunities for women. It is also a job where they can earn a salary equal to that of men. The differences in pay levels seem to be much higher in Siem Reap. In Siem Reap men reported salaries from 4,000 to 10,000 riel per day (average 6,000/7,000 riel) and women reported salaries from 2,500 to 5,000 riel per day.

Several workers of both sexes hoped to improve their chances of future construction employment with the experience and skills gained through their current work. It seems however, that men have more chance to upgrade these skills and eventually become skilled workers. Being a skilled worker improves the chance of finding subsequent work, increases the chance of being asked directly by the supervisor and carries a higher salary. Women are, almost by definition, unskilled workers. Tasks are well defined and divided into typically male or female tasks. The research team did not encounter a single female supervisor, group leader or skilled worker.

Wage labour and voluntary labour

In a village on the road to Paek Sneng, the village chief had informed villagers about the recruitment and selection procedures for the road construction work. This chief was also calling villagers to contribute labour to build a dam. Both activities took place around the same time. Many families had no choice - those with only one family member able to leave domestic tasks to do construction work were not able to seek employment through the ILO Upstream supported road construction. The village chief, who called for "voluntary" labour, had forced every family to contribute one member. Families with larger households and more than one productive member were able to do both. However, the poorest families with many dependants and fewer productive members were unable to apply for the road construction jobs. The Age-Dependency Ratio shows that the poorest households have more dependants than productive household members. In cases where they must contribute voluntary labour, they may be unable to seek paid employment. It seems that community works potentially compete with the ILO Upstream policy of providing equal opportunities to all wealth classes. The richer the household, the more productive are its members. Therefore rich households are more likely to be able to replace a family member during "voluntary" contribution, or pay off the household's duties to contribute labour. The poorer the household, the more likely "voluntary" labour competes with other, often very necessary, income earning opportunities.

The team asked road construction and maintenance workers for their opinions on voluntary labour. What would they do when there was a wage earning opportunity and a call for voluntary labour at the same time?

Most informants indicated that they would try to find a family member who could contribute voluntary labour. If that were not possible, they would try to pay off their duty to the village chief, who could then hire labourers. If neither of these options were possible, they would ask the supervisor for a few days off to contribute voluntary labour to their village, after which they would return to the road construction site. However, most informants strongly preferred

to avoid this option, as it would mean lost income. Most feared the village chief and felt that they could not ignore him. Only a few informants said they would ignore the village chief's call for labour if they were working on the paid road construction. Most informants reacted strongly to the term "voluntary labour" - they felt it was not voluntary, but forced labour.

For the village chief, or Village Development Committee, wage-for-work competes with voluntary labour when the better-off families try to pay instead of contributing labour. The research team concluded that wage-for-work opportunities supported by the ILO Upstream Project, did not have a negative impact on workers willingness to contribute voluntary labour - if this was labour on a real voluntary basis for the betterment of their households and community. However, most workers felt that voluntary labour is a disguised form of forced labour and held a low opinion of it. This was unlike the voluntary labour requested by the achaar (wise men from the pagoda) or by elderly people. Many villagers indicated that they consider this to be real voluntary labour.

Conclusions

This research aimed to assess the impact of wage labour opportunities through ILO Upstream supported road construction and maintenance in Siem Reap province on workers and their families. In total, 109 workers were interviewed at the construction sites. Fifty-seven percent were male and 43 percent were female. Although ILO Upstream Project figures showed a higher percentage of women working on the sites (49%), this did not seem to be the case at the time of the study. One explanation may be that tasks are role specific and that the work at that particular stage required more men than women. At some sites there were many women, at others almost none.

Most workers were aged between 17 and 25 years old (64%) and only 20 percent were older than 35. Road maintenance workers were mostly older than 46 or younger than 25. This clearly reflects a difference in recruitment and selection for the two jobs. Supervisors mainly attract and select strong young people for road construction, whereas older people were selected for road maintenance. They are now slowly handing over this task to their children.

The workers employed in road construction came from many different places. Forty-eight percent came from villages nearby (0 to 6 kilometres), 26 percent came from villages farther away (7-12 kilometres) and 26 percent came from villages more than 13 kilometres away. Several workers lived up to 30 kilometres away.

Motivation for seeking wage labour

Most workers were rural farmers who were busy on their farms in the rainy season, but had little work in the dry season. They seek extra income to supplement income from small businesses like weaving, selling cake and noodles, cutting and selling firewood, clearing forests, etc. Income from this work ranges from 1,000 to 4,000 riel per day, with an estimated average of 2,500 riel per day. Many households need extra income to buy rice to make up the shortage in yearly rice output, or to buy other, more nutritious food.

There seems to be a serious shortage of wage labour opportunities in the dry season. There are other opportunities in construction work, but these are mainly located in Siem Reap town, which most informants found too far away. Salaries at some construction sites in Siem Reap town, especially those for hotel construction, seem to be higher than for road construction work. However, the duration of employment is often very short (e.g. ten days) and the work is considered very hard. Women commented that they lacked the connections to gain employment in Siem Reap town. It is noteworthy that although salaries in construction work for men seem on average to be higher in Siem Reap town than at the ILO Upstream supported road construction, this does not seem to be the case for women. For a few workers, the only alternative to employment in road construction would be to seek employment at the border with Thailand.

It can be concluded that there is a high demand for jobs in the dry season. Road construction and maintenance using LBAT fills an important employment gap in rural areas. These activities also provide one of the rare opportunities for women to find employment in the area, and with equal payment for both sexes. However, labour based road construction works compete with farming in the wet season. Problems occur with recruitment and with those workers already recruited, who leave their employment to prepare land for farming. This

happened in 2000 due to the early rains. These problems support the contention that there is serious potential competition for labour at this time of year.

Recruitment and selection for road construction[12]

In no single case had lottery systems been used for recruitment. At Puok Market there had been a public announcement, but no village meetings were reported. Although village meetings to inform people had taken place along the road to Paek Sneng, only a few road construction workers had applied after attending a village meeting (7%). At Puok Market and the road to Paek Sneng on 14 percent had applied after seeing the public announcement. Most workers had heard about the job opportunity from others. Twenty percent were directly asked by the supervisor (skilled workers who had worked for the same contractor/supervisor before) and 58 percent heard about it through family and friends who knew the supervisor or group leader. Several workers of the latter group indicated that they would not have applied if they did not know the supervisor or group leader, despite having seen the signboard.

The above factors suggest that connections with people recruiting and selecting are the most important factors in recruitment, although many workers reported that anyone could apply. It could partly be a self-fulfilling prophecy, as many indicated that they would not have applied if they did not know anybody. However, it also confirms the importance of the supervisor in recruitment and selection. The contractor delegates recruitment to the supervisors, who carry out these activities fairly independently.

Both the lottery and "recruitment through connections" have their advantages. The choice largely depends on the main purpose of the project. Is the purpose to create equal job opportunities for all or is it to build a qualitatively good road within a limited time frame? For the supervisor, it is better to use his connections and select young people, preferably with experience and/or skills in road construction. Supervisors are therefore more likely to get good, strong, committed workers. Workers will then come from different places, not necessarily near the construction site. If the ILO Upstream Project attaches greater importance to creating wage labour for people from villages surrounding the construction site equally, then the lottery system may have to be reconsidered. However, some construction sites started recruiting when many farmers had to return to their fields. In those cases there may be insufficient workers to recruit by lottery.

Wealth ranking

A small majority of the workers came from poor families (54%). Thirty percent belonged to slightly better-off families - owning a television, sometimes a motorbike, cows, buffaloes and living in a wooden, tiled house. Sixteen percent belonged to the poorest group - landless or with only a small plot of land, having no assets and living in a house made of palm leaves.

The first possible explanation for the low percentage of the poorest workers is a lack of connections. This seems likely considering the importance of contacts and connections for getting jobs. There may also be another explanation. An important difference between the three wealth categories was the Age-Dependency Ratio - the number of dependants in a household per productive household member. The Age-Dependency Ratio for all workers interviewed was a very low 0.61. This means that one productive household member has to support 0.61 dependants (children aged 0-14, people older than 65 or disabled/chronically ill

[12] Road maintenance workers were not included as their selection is mainly based on experience with road construction and labour based construction techniques.

people). The average Age-Dependency Ratio for Siem Reap Province is around 0.92. Why is it so low for the sample of workers?

Two different mechanisms may have played a role. Firstly, it is easier for households with more productive members to free themselves from daily domestic tasks and seek wage labour opportunities. ILO Upstream supported construction work is therefore more likely to attract workers from households with a relatively large number of productive members. Secondly, those households seem to be among the poor and better-off, rather than the poorest. Although the Age-Dependency Ratio is very low for the better-off among the workers interviewed (0.34) it is extremely high among the poorest (1.04). The poor have a ratio between the other two groups of 0.70. This helps explain why only a small percentage of the workers belonged to the poorest wealth category. In the poorest households dependants outnumber productive household members. This makes it difficult for productive members to leave their domestic tasks and the care of dependants and seek wage labour opportunities.

At the construction sites on the road to Paek Sneng there was another explanation. The village chief in one community had called for "voluntary" labour to construct a dam at the same time as recruitment and selection for the construction of the road to Paek Sneng. Every household was forced to contribute labour to construct the dam. The poorest households lacking productive household members could not apply for the road construction (where they could earn a salary) because they had to work on the dam. Only households with enough productive members, or those that could pay off their duties to the village chief, could work on the road construction. Obviously, these were mainly the wealthier households.

Lack of connections, more dependants than productive household members and competition for labour may all have contributed to the low percentage of workers from the poorest category among the road construction workers.

Working conditions

There were few complaints about working conditions. Most workers reported no problems. Some found it hard initially and a minority mentioned difficulty completing their daily tasks. Working times were quite strict, although there was some variation between construction sites. Usually, working times were from seven to 11 a.m. and from one to five p.m. Most workers were not allowed to leave earlier if their task was completed. They were either given another task, had to help others, or they simply had to wait until five p.m.

Many workers had experience with road construction under force account and pointed out the differences. More work has to be completed under the current sub-contracting system and working times have become stricter. Many workers recounted that in the past they were allowed to leave earlier if their tasks were completed, which made it easier to combine road construction work with domestic duties. Although workers presently get a productivity-based remuneration (daily tasks to complete) it looks more like time based remuneration, or a mix of the two. It might be better to set one single standard for all contractors and supervisors. This would make it transparent for workers and avoid confusion between two different systems. If the objective is to attract more workers from the poorest wealth classes, who have comparatively more domestic tasks, flexible working times might need to be reconsidered.

There were few problems reported with payment. The system where each worker puts a finger print on a paper stating the days worked during the last two weeks seems to work well. One problem, which can easily be remedied, was a common misconception about the delay in

payment. There is always a delay of about a week, for administrative reasons. However, many workers did not perceive this as a delay, but as a way of preventing workers from leaving. This seems an unnecessary misconception, although some supervisors may have cultivated this idea to indeed prevent workers from returning to their fields.

It was usually the supervisor who decided on the work to be completed, the working times, whether rests were permitted during work hours (mostly not) and whether workers were allowed to leave earlier. The project document of the Upstream Project (1997) mentions the importance of training and monitoring to ensure contractors strictly adhere to the procedures regulating all aspects of labour under the Cambodian Labour Law. Although no real excesses were found during this study, the responsible ministries may consider establishing a monitoring system.

Payment in cash or in kind?

With the change from force account to sub-contracting, a change in mode of payment took place. Under force account, workers received payment sometimes in kind, sometimes half in cash and half in kind and sometimes entirely in cash. At present, the workers receive their salaries in cash.

The majority of workers (51%) preferred payment in cash. The reasons given were: not needing rice, the possibility of buying other things, using cash to repay debts, and ease of transport. Other reasons related to negative experiences with payment in kind, as payment in kind seems more susceptible to delays and conflicts over the quantity of rice owed.

A high percentage of workers preferred payment in kind (44%). Among them were more women than men and more workers from the poorest households. The most frequent reason for this preference was the need for rice. For those that lived far from the market, it was difficult to buy rice. Another common reason was that rice could not be spent on alcohol, cigarettes or dancing.

Wage labour and voluntary labour

ILO Upstream wage-for-work opportunities do not appear to have a negative impact on workers' willingness to contribute voluntary labour - if this labour is truly voluntary and for the betterment of their households and community. However, most workers felt that voluntary labour is forced labour in disguise and had a low opinion of such labour. This contrasts with voluntary labour requested by respected villagers, like the elder or the achaar.

When voluntary labour and wage labour occur at the same time, there is potential for competition. If voluntary labour is forced labour in disguise, it can compete with equal employment opportunities for all wealth categories, as it prevents the poorest from seeking wage-earning opportunities. In general however, workers faced with such voluntary labour try to find a family member to replace them. If this is impossible, they will try to pay the village chief, who can then hire labourers. When neither option is possible, they will ask the construction site supervisor for a few days off to contribute voluntary labour to their village, after which they will return to the road construction site. Most informants preferred to avoid this, as it would mean lost income. From the point of view of the village chief, paid labour competes with voluntary labour when better-off families try to pay instead of contributing labour.

Impact of wages earned on households

Most workers spent their income from road construction the same as other income. Workers kept a percentage for themselves (ranging from 0% to 40%, with an average of 10-20%) and gave the remainder to the person in control of household finances. This was mostly the workers' wife or mother, except in a few cases where there was no adult woman in the household. It is difficult to discover the impact of road construction wages, as income from different sources is mostly spent in the same way. The study therefore decided to focus on the household expenditures in general.

Almost all workers, male and female, from the poorest to the better-off, indicated food as the first priority expenditure. This was true for 85 percent of workers interviewed. For the poorest, this means expenditures on basic food items, like rice, salt, oil and prahok. As wealth increases, the family is likely to buy more nutritious food like fresh or dried fish and meat.

Clothing was the second expenditure for the poor and the better-off. For the poorest, medicines were the second priority, whereas this was hardly mentioned by the better-off. This supports the hypothesis that the better-off spend money on more nutritious food, which leads to better health and therefore lower expenditures on medicines. Education was the fourth expenditure for the poorest and the better-off, whereas debt repayment was the fourth expenditure for the poor.

Men and women ranked expenditures on medicines and on debt repayment very differently. Women ranked medicines much higher than men and men ranked debt repayment much higher than women. This suggests that women mainly manage medical expenditures, whereas men deal with debt repayment.

Most cash income is spent on non-productive items (food, clothing, medicines and debt repayment). Education and farm tools were the most common productive expenditures. The better-off spent money more productively than the other two wealth categories, as their third expenditure was on education and their fourth on farm tools.

Road construction and maintenance salaries are good compared with other employment opportunities, but too low to use productively. All cash income was needed to meet basic needs. Only a few informants were able to save money or use it for small business investment. Mainly the better-off who were able to use the money more productively. It is not possible to discover the extent that cash earned through road construction and maintenance contributed to the overall household income, as there were too many fluctuations in cash incomes from many different sources. However, income earned through labour based road construction and maintenance helped poor people survive in the dry season, when few job opportunities were available.

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Appendix - Tables of Survey Results

Age

Age Range	Frequency	Percent	Cumulative Percent
16-25yrs	66	60.5	60.5
26-35yrs	21	19.3	79.9
36-45yrs	13	11.9	91.8
>46yrs	9	8.3	100.0
Total	109	100.0	

Wealth

Wealth Category	Frequency	Percent	Cumulative Percent
Poorest	17	15.6	15.6
Poor	59	54.1	69.7
Better-off	33	30.3	100.0
Total	109	100.0	

Distance from home to work

Distance Category	Frequency	Percent	Cumulative Percent
Near 0-6 km.	42	47.8	47.8
Medium 7-12 km.	23	26.1	73.9
Far >12 km.	23	26.1	100.0
Total	88	100.0	

How did you hear about this work?

	Frequency	Percent	Cumulative Percent
Via worker/someone who knows supervisor or group leader	51	58.0	58.0
Asked by supervisor	18	20.5	78.5
Passed by/saw signboard	12	13.6	92.1
Village meeting	6	6.8	98.9
No answer	1	1.1	100.0
Total	88	100.0	

Preferred mode of payment

Payment Mode	Frequency	Percent	Cumulative Percent
Cash	55	50.5	50.5
Food	48	44.0	94.5
No preference	5	4.6	99.1
No answer	1	0.9	100.0
Total	109	100.0	

First expenditure

Expenditure Category	Frequency	Percent	Cumulative Percent
Food	93	85.3	85.3
Clothing	1	0.9	86.2
Medicines	2	1.8	88.1
Entertainment	1	0.9	89.0
Debt repayment	6	5.5	94.5
Buy house/land/ animals	1	0.9	95.4
Farm tools	1	0.9	96.3
Business/savings	3	2.8	99.1
No answer	1	0.9	100.0
Total	109	100.0	

Second expenditure

Expenditure Category	Frequency	Percent	Cumulative Percent
Food	9	8.3	8.3
Clothing	26	23.9	32.1
Medicines	16	14.7	46.8
Religion	4	3.7	50.5
Education	13	11.9	62.4
Wedding	4	3.7	66.1
Household equipment	2	1.8	67.9
Entertainment	4	3.7	71.6
Debt repayment	10	9.2	80.7
Buy house/land/animals	1	0.9	81.7
Cigarettes	2	1.8	83.5
Farm tools	5	4.6	88.1
Business/savings	4	3.7	91.7
Farm inputs	2	1.8	93.6
Other	3	2.8	96.3
No answer	4	3.7	100.0
Total	109	100.0	

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Ministry of Rural Development
Corner Rd. 169 and Soviet Blvd.
Phnom Penh
Kingdom of Cambodia
Tel: 855-23-366 792
Fax: 855-23-428 049
Contact person:
H.E. Suos Kong
Under Secretary of State
Email: skong_mrd@forum.org.kh

International Labour Organisation
No.8 Street 352 off Norodom Blvd
PO Box 877 (UNDP)
Phnom Penh, 12302
Kingdom of Cambodia
Tel: 855-23-211 484, 428 210
Fax: 855-23-427 632
Contact person:
Bas Rozemuller
Associate Expert Socio Economic Studies
Email:basr-ilo@bigpond.com.kh

Employment-Intensive Investment Branch (EMP/INVEST)
Recovery and Reconstruction Department (EMP/RECON)
International Labour Office
4, Route des Morillons,
CH-1211 Geneva 22, Switzerland
Tel:+41-22-799 6546, Fax: +41-22-799 6489