Kingdom of Cambodia

IMPACT OF EMPLOYMENT GENERATION IN THE ILO SUPPORTED ANGKOR PARK CLEARING AND CLEANING PROJECT (1992 - 1998)

The Impact of Wage Earning on Workers
Siem Reap Province, Kingdom of Cambodia

MINISTRY OF RURAL DEVELOPMENT

INTERNATIOPNAL LABOUR ORGANISATION
Technical Assistance to the labour-Based Infrastructure Work Programme
UPSTREAM Project-CMB/97/M02/SID

Socio– Economic Series
August 2002
10

Printed in Cambodia First published 2002

International Labour Organisation

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"Upstream Project" CMB/97/M02/SID

Impact of Employment Generation in the ILO Supported Angkor Clearing and Cleaning Project

1992 - 1998

The Impact of Wage Earnings on Workers

By

Alebachew Kassie ***Samrith Yan***

Acknowledgements: The authors express their appreciation to: H.E. Suos Kong, Under-Secretary of State, Ministry of Rural Development; David Salter, ILO Chief Technical Advisor; Mr. Huy Houn, Chief of Kouk Chak Commune; The Siem Reap Department of Planning; Officials of APSARA Authority; Samer Fayadh, Construction and Maintenance Engineer, Doekle Wielinga, IRAP Planner; the ILO Upstream Project Siem Reap Office; and Ian Ramage, Editor for their valuable contributions to this study.

Executive Summary

Introduction

Since 1992, the International Labour Organisation (ILO) Upstream Project - CMB/97/M02/SID has been promoting Labour-Based Appropriate Technology (LBAT) to generate employment by improving and maintaining essential rural infrastructure. Labour Based Appropriate Technologies make the maximum use of unskilled labour and the minimum use of capital equipment to build works at a speed, quality and cost of at least comparable with those of any other method. From late 1992 until 1998, the Upstream Project promoted employment through the Angkor Clearing and Cleaning Project (ACCP). This project concentrated on clearing and cleaning of the monuments and the environs of the Angkor World Heritage Site. The objective of this study was to assess the employment impact on workers and their families from the ILO supported ACCP.

Method

The study used a combination of structured and semi-structured interviews based on an interview guide. The first part of the interview focused on household composition, productive activities, income and socio-economic status. The second part focussed on the motivation to seek wage-earning opportunities, the selection process, working conditions, impact of wages on the household and opinions about food for work versus cash for work payment systems.

Demography

The workers employed during the project varied from a minimum of 100 workers per year in 1992 to a maximum of 500 workers in 1998. The average was approximately 300 workers per year during the project. The research teams interviewed 66 former workers of whom 36 were women (55%) and 30 were men (45%). The household population for the sample increased from 378 in 1992 to 455 in 1998. This is a 17 per cent increase overall or a three per cent increase per annum.

Wealth Ranking

Wealth ranking of respondents indicated that 55 per cent of respondents were in the poorest category in 1992. By 1998, this figure had decreased to 39 per cent, demonstrating a 16 per cent improvement for the poorest respondents. Thirty one per cent of respondents were in the poor category in 1992 and this increased to 40 per cent by 1998. Respondents in the better off category increased from 14 per cent in 1992 to 21 per cent in 1998. In general, wealth ranking demonstrated that wealth improved during the life of the project. This indicates a positive impact on poverty from employment in the ILO supported maintenance work.

Recruitment and Selection

ACCP workers were selected for recruitment by considering criteria like worker's strength, health, availability and determination to finish the assigned task. Most respondents reported that the recruitment and selection procedure was fair. Anyone could apply and be employed if they were appropriate for the work.

Preference for Payment

From 1992 to 1994, workers were paid in cash only. However, from the involvement of the World Food Program (WFP) in 1994 until the end of ILO's support for ACCP in 1998, payment was made half in cash and half in food (kind). A slight majority preferred payment in cash (56%) and this was more common for men than for women.

Output in Workdays

From 1992 to 1998, the ACCP generated over 361,000 workdays. Fifty five per cent of these were by women while men carried out 45 per cent of the workdays. The highest annual workdays for the ACCP was in 1996 when almost 84,000 workdays were spent on the project. The lowest number of workdays was 800 in 1992 when the project first began.

Ranked Expenditures

Most workers ranked food as their first priority expenditure. This was true for 92 per cent of the workers interviewed. Clothing was the second ranked expenditure for the poor and the better off workers. Medicine was the second ranked expenditure for the poorest workers and the third priority expenditure for poor workers. Workers in the better off category did not rank medicines as one of their priority expenditures.

Category	1st Ranking	2nd Ranking	3rd Ranking	4th Ranking
Better off	Food	Clothing	Education	Savings
Poor	Food	Clothing	Medicine	Farm tools
Poorest	Food	Medicine	Clothing	Debt repayment
Men	Food	Clothing	Medicine	Farm tools
Women	Food	Medicine	Clothing	Education
Total	Food	Clothing	Medicine	Debt repayment

Expenditure Ranking by Wealth and Gender

In general only the better off workers could save and invest. The poor and the poorest workers spent their wages for immediate consumption, to buy food and medicines and to repay debts. Those workers with more than one hectare of farmland could subsist on the produce of their farms and therefore income from the ACCP could be used for productive investment.

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Acronyms

ACCP	Angkor Clearing and Cleaning Project
ACO	Angkor Conservation Office
APSARA	Autorité pour la Protection du Site et l'Aménagement de la Région d'Angkor
CDRI	Cambodia Development Resource Institute
COFRAS	Compagnie Francaise d'Assistance Specialist
DoP	Department of Planning
EFEO	Ecole Francaise de I'Éxtreme-Orient
HH	Household
ILO	International Labour Organisation
LBAT	Labour Based Appropriate Technology
MRD	Ministry of Rural Development
PDRD	Provincial Department of Rural Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WFP	World Food Program
WMF	World Monument Fund
ZEMP	Zoning and Environmental Management Plan

Introduction

Since the 1970's, the International Labour Organisation (ILO) has promoted employment-intensive public and community works programmes to create jobs and alleviate poverty in developing countries. In Cambodia, the ILO has implemented a series of projects that use Labour-Based Appropriate Technologies (LBAT) to generate employment by improving and maintaining essential rural infrastructure. Infrastructures targeted by the ILO are rural roads, irrigation schemes and the clearing and cleaning of the Angkor World Heritage Site.

The Angkor Clearing and Cleaning Project (ACCP) was carried out through three technical co-operation projects funded by the United Nations Development Programme (UNDP), the Netherlands and Sweden. The project aimed to assist the government to maximise the potential benefits of the Angkor monuments for poverty reduction by generating sustainable employment for the local population through the care and maintenance of the monuments.

The ACCP employed local people to clear and clean the Angkor monuments of undesired vegetation, carry out small engineering works like construction and repair of drainage structures and plant tropical hardwood trees. These works were conducted using simple tools and labour-based techniques that were particularly suitable for the sensitive environment of Angkor where heavy machine based works could have potentially damaged the monuments.

The ILO supported ACCP work began in late 1992 as part of the UNDP Labour-Based Infrastructure Rehabilitation Project (CMB/92/008). The Government counterpart for the project was the Angkor Conservation Office (ACO). The project was carried out in close association and often under the archaeological supervision of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and other bodies assisting ACO. The project aimed to generate 50,000 workdays of employment per year through the following activities:

- Vegetation clearing in selected areas.
- Pond or reservoir clearing and cleaning including other drainage works.
- Basic cleaning of nominated monument sites after supervised excavations.
- Basic earthworks and stone pavement works (selected walkways and tourist access paths).
- Routine maintenance and cleaning activities.
- Planting hardwood trees.
- Drainage maintenance.

The work plan for activities was drawn up in collaboration with the ACO and UNESCO. Many of these works were co-ordinated with the Ecole Francaise de I'Éxtreme-Orient (EFEO) and the World Monument Fund (WMF). In developing the work plan, work norms were established for the LBAT activities. Counterpart staffs were assigned to the project and trained to oversee the work and assist in planning activities.

By 1998, the focus for international assistance to Cambodia had shifted from emergency rehabilitation to longer-term infrastructure development. The ILO ended the ACCP and began a project focussing on technical assistance and capacity building for the development of rural infrastructure (The Upstream Project CMB/97/M02/SID). The Angkor Conservation Office

was later replaced by Autorité pour la Protection du Site et l'Aménagement de la Région d'Angkor (APSARA) who took over the management and maintenance of the Angkor Park.

Despite the end of ILO assistance, the structures developed between 1992 and 1998 are still in place today. In 2001 when this study was conducted, the research team found many of the supervisors, group leaders and workers still working on the APSARA maintenance program. This study assesses the employment impact of the ACCP on the workers employed in the project for the period of the ILO's involvement from 1992 to 1998.

Method

A combination of structured and semi-structured interviews was used to collect information. The first structured part of the interview focused on household composition, productive activities, income and socio-economic status. The second part encompassed semi-structured, open questions focusing on the motivation to seek wage earning opportunities, the selection process, working conditions, the impact of wages earned on the household and opinions on food for work versus cash for work payments. A research team of six researchers was assembled to collect the information. Researchers came from the following organisations:

- One researcher from the ILO Upstream Project Socio-Economic Team.
- Two researchers from the Siem Reap Provincial Department of Planning (DoP).
- Two researchers from APSARA.
- One researcher from Siem Reap Provincial Department of Rural Development (PDRD).

The questionnaire was prepared and translated from the English language into Khmer. After providing one-day intensive training for the data collectors, a pilot was carried out. Based on the pilot some questions were modified to make them easier to understand. Researchers first interviewed the chief of Kouk Chak commune, where many former ACCP workers live to get the opinion of the local authorities on the impact of wage earning on workers in the ACCP.

Three teams conducted the research over a period of 10 days in November 2001. Each team consisted of two persons in which one person asked the questions while the other recorded the information. The works supervisor was also interviewed about project activities, the supervision of the workers and impact of wages earned on workers. The researchers 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.

The former ACCP works supervisor assisted the team to locate ACCP workers. Fortunately, many were still working for APSARA. The total sample size of the survey was 66 workers and although employment records were incomplete, the sample was chosen to reflect the gender distribution of project workers. The interviewed informants were 36 (55%) women and 30 (45%) men. Secondary data on workdays for the project was collected from the Siem Reap ILO Upstream Project office. In addition, information about the management and supervision of the project activities were compiled. Before data collection, a literature review of the ACCP was undertaken at the Cambodian Development Resource Institute (CDRI) library, Phnom Penh; UNESCO office, Siem Reap; APSARA office, Siem Reap and from the ILO Office in Phnom Penh.

Labour-Based Appropriate Technology

Manual methods have been used to create infrastructure, buildings and monuments since human beings started to organise into states. Irrigation systems and roads have been constructed using labour-based technologies for thousands of years. The Angkor monuments were built using these approaches. Labour-based methods are still used in Asia in general and in Cambodia in particular. In the early 1970's, the ILO initiated the World Employment Program and the World Bank launched a study entitled "substitution of labour for equipment" to which the ILO made substantial contributions. Labour-based technology describes technology in which labour, supported by light or medium-sized equipment, is used as a cost-effective method (compared to equipment-based methods) of building or maintaining infrastructure to a specified standard. A World Bank publication describes labour-based methods as follows:[1]

> *"Labour-based methods depend mostly on human muscle, and little on equipment, differentiating them from equipment-based methods. In theory, the potential mix of labour and equipment spans the full spectrum with no clear boundary between the two methods. For developing as well as industrial countries, the appropriate construction methods are found somewhere between the two extremes - 100 per cent labour-intensive and 100 per cent equipment-intensive - and depend on the socio-economic environment and the task. In practice, labour-based methods refer to those that use labour and light equipment as the predominant mode of production and equipment-based methods refer to using heavy equipment and a few labourers as the predominant mode of production."*

Components of modern LBAT, like work methods, productivity norms, management methods and remuneration systems have already been developed. However, they must be modified for site-specific conditions. The adoption of poverty reduction strategies by donors and developing countries has increased interest in employment generation.[2] In many instances, the selection of LBAT is economically justified and compatible with economic growth objectives as LBAT injects cash directly into the rural economy.

Background to the ILO Intervention

In 1992, the United Nations Development Programme initiated a Labour Based Rural Infrastructure Development Project as part of the United Nations effort to alleviate poverty in Cambodia. The project was executed by the International Labour Organisation and aimed to generate desperately needed rural employment through the rehabilitation of essential rural infrastructure. The project was designed to make an immediate impact on poverty alleviation for rural people through generating new employment opportunities. In the longer term, the project would contribute to the growth of the rural economy through improved infrastructure. Field operations began at the end of 1992 in the northwestern provinces of Siem Reap, Bantaey Meanchey, Battambang, Pursat and in two southern provinces Takeo and Kandal. The project worked in rural roads, irrigation and maintenance in the Angkor Park.

[1] Stock and de Veen (1996), p4.

[2] Bruzelius Nils and Sture Hjelm (2001), p4.

The Angkor Complex

The Angkor Park is one of the most beautiful historic sites in the world. It is located 312 kilometres to the northwest of Cambodia's capital, Phnom Penh. The historic city of Angkor is approximately seven kilometres to the north of the town of Siem Reap. The remnants of this unique culture encompass more than forty temple complexes and are scattered over a large area of more than 160 square kilometres. The Angkor complex consisting of Angkor Wat, Angkor Thom, other temples and the Barai comprise the single most important and internationally known attraction of Cambodia. UNESCO designated Angkor as a World Heritage Site in 1992.[3]

Due to the security situation, maintenance of the Angkor monuments was abandoned or drastically scaled back from the 1970's until the early 1990's. During this period, the jungle began to damage and choke the monuments. As an example, by the 1990's the vegetation in the moat around Angkor Wat was so thick that it could hardly be imagined to contain water.[4]

In Siem Reap province, tourism has particular potential for foreign exchange earnings and for poverty alleviation. However, before the Angkor Clearing and Cleaning Project, access to the monuments for tourists and those studying and protecting the monuments were complicated by uncontrolled vegetation growth. At the same time, the vegetation provided cover for those who wanted to rob tourists or steal artefacts. Some temples had already collapsed and the roots of the vegetation had cracked others.

The project co-operated closely with the ACO, UNESCO, APSARA and other organisations. Each year a work plan was developed that detailed the dates, places and workforce required in consultation with the relevant authorities and experts. The work was carefully planned to use resources in the most efficient manner. The project invested in the training of counterpart technical staffs who were responsible for carrying out the day-to-day field operations. This included training in language, labour-based technology and management. In addition, the project sponsored study tours for counterpart staff to Angkor era monuments in Thailand. The Cambodian ACCP counterpart staff developed their capacity to prepare and implement the work plan in a competent, independent and responsible manner. These same staffs continue to use these skills in their current duties with ASPARA.

In the early 1990's, the major challenge in the Angkor Park was to establish a system of basic maintenance. This was required to control vegetation growth and ensure an effective drainage system. Vegetation growth is destructive when uncontrolled in an archaeological situation.[5] Much of the Angkor complex is over 1,000 years old and was covered with vegetation, which had damaged the structure. For more than three decades, there was no significant repair of drainage systems, no maintenance of the temple structures and no cleaning of the water canals. The repair of drainage systems and the removal of reed growth could help restore water tables to their original levels thus reduce the rate of collapse of many ancient structures. The maintenance activities were well planned and undertaken regularly under the careful supervision of qualified archaeologists. The maintenance strategy also considered the

[3] Ministry of Commerce (2000), pp. 49-56.
[4] Zemp Expert Team (September 1993), Zoning and Management Plan for Angkor.
[5] UNDP/ILO (1994), p.75.

recommendations of the UNDP/UNESCO Zoning and Environmental Management Plan (ZEMP). A strategy for ongoing labour-based maintenance in the Angkor Part was prepared by the project. This strategy planned for recurrent maintenance costs to be eventually funded from tourist revenue.

Apart from the ILO, the following international organisations were involved in maintenance activities in the Angkor Park from 1992 to 1998:

- Ecole Francaise de l'Éxtreme-Orient (EFEO).
- World Monument Fund (WMF).
- UNESCO (Zemp Project).
- Compagnie Francaise d'Assistance Specialist (COFRAS).

Each of these organisations had unique aims and worked at different times. The EFEO had a continuous programme for many years while the WMF was working only in one part of the complex (Preah Khan) on a seasonal basis. The COFRAS provided demining support to those working in the Angkor Park. With many different organisations involved, the total labour force was often sizeable. As an example the following labour force was working in the Angkor Park in 1994:

ACO - 60 workers; EFEO, 100 workers; WMF, 40 workers and the ILO, 270 workers.[6]

The combination of a large variable labour force and different goals made careful logistical planning necessary. In association with the ACO, the ILO planned a maintenance strategy each year from 1992 to 1998. Planning was complicated by maintenance tasks that required different skills and a variety of restoration and clearing operations with different labour and supervision needs. Priorities were set by ACO after discussions with all those concerned with maintenance work at the complex. Site diagrams were marked to indicate where each maintenance operation was to be carried out and cross-referenced to the respective area on the programme. In general, there were two levels of maintenance, those areas requiring regular daily attention and those requiring maintenance at less frequent but regular intervals.

[6] UNDP/ILO (1994), p.75.

Demography and Wealth Ranking

Sample Distribution

The number of workers employed during the year varied throughout the project and according to the time of the year. This ranged from a minimum of 100 workers per day to a maximum of 500 workers per day. On average about 300 workers per day were employed throughout the project. The research teams interviewed 66 workers from different villages, communes and districts in Siem Reap Province. Respondents came from 16 villages, within four communes and three districts (Siem Reap, Angkor Thom and Puok). The majority of the informants were from Siem Reap district while the rest were from Angkor Thom and Puok Districts. Most respondents were from Kouk Chak Commune in Siem Reap District. Of these, a significant proportion came from Norkor Kroa Village, which is located adjacent to the Angkor Park. Some respondents were from Leang Dai commune in Angkor Thom District or Teuk Vil Commune in Puok District (Appendix 2, Table A).

A team leader headed the ACCP counterpart team. The team leader was responsible for overall project activities and directly supervised four supervisors. Each supervisor oversaw the work of three group leaders. In turn, each group leader supervised 25 workers. An organisational chart of the ACCP is included as Appendix 3. Initially the ILO maintained close supervision and monitoring of the project. As competencies were developed and skills were successfully transferred to the ACCP counterparts, the ILO progressively reduced the intensity of monitoring and supervision.

Age and Household Size

Forty seven per cent of respondents were between 17 and 25 years old. Most of the sample was over 25 years of age. Workers in ILO supported road construction projects were generally younger with the majority of workers under 25.[7] As road construction work is heavier and requires more physical strength than the ACCP work, supervisors tended to recruit younger and stronger workers. The age composition of workers in the ACCP is shown below.

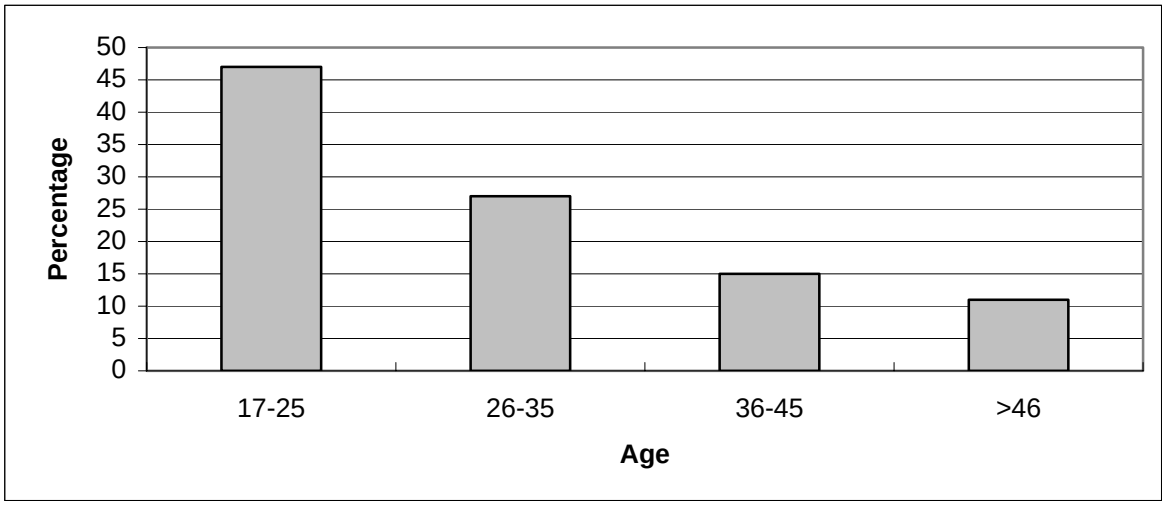


Figure 1: ACCP Workers Age Distribution

[7] ILO (2000).

Generally, interviewees came from large families. The mean household size in 1992 was 5.7 members. Whereas the average household size by 1998 was 6.9, ranging from a minimum of three to a maximum of 11 family members. The total household population for the sample has increased from 378 in 1992 to 455 in 1998. This is a 17 per cent increase, which is 3 per cent increase per annum. The following table shows the household composition for the sample.

Household Population	1992		1998	
	Number	%	Number	%
Respondents	66	18	66	15
Spouses	28	7	28	6
Children	80	21	170	37
Brothers/ Sisters	120	32	109	24
Other	84	22	82	18
Total	378	100	455	100
Average Household Size	5.7		6.9	

Table 1: Household Composition for the Sample

Wealth Ranking

Wealth ranking is a widely used method of assessing the relative economic status of a small number of respondents in a village community. The research teams recorded housing materials, cultivated land, livestock and other fixed assets of the respondents before and after they started working in the ACCP. In general, land is one of the most important assets determining the wealth category of the informants. Except for one informant in 1992 and for three in 1998, all interviewees possessed farmland ranging from 0.5 hectares to over 2 hectares. Two interviewees in the poorest wealth category sold their land to repay debts and thus became landless. The following table shows the distribution of land for the respondents.

Cultivated Land Possessed	Number of Households in 1992	Number of Households in 1998
Without land	1	3
Less than one hectare	27	22
Between one and two hectares	33	37
More than two hectares	5	4

Table 2: Cultivated Land in 1992 and 1998

The number of informants who had less than one hectare of land decreased from 27 in 1992 (41%) to 22 in 1998 (33%). Whereas the number of respondents who owned land between one and two hectares increased slightly from 33 in 1992 (50%) to 37 in 1998 (56%). One respondent with more than two hectares in 1992 had distributed land to his children when they became married and his land area declined in 1998 to less than two hectares.

Respondents with a television often also owned a motorbike, buffaloes and lived under a tiled roof. These respondents were considered better off. Landless respondents 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 respondents. Respondents who were between these two categories were considered the poor group. The following table summarises the different categories.

Indicators	**Poorest**	**Poor**	**Better off**
Housing	Palm leaves for roof and wall	Mixture of palm leaves, tin and wood	Tiled roof and timber walls
Cultivated Land	No land or less than 1 ha. Not enough for household consumption.	1 to 2 ha. Production sufficient for household consumption.	More than 2 ha. Surplus rice production
Animals	No animals other than chickens	Chickens, ducks and pigs.	Chickens, ducks, pigs, cows and buffaloes.
Assets	No assets	Bicycle, radio, sometimes ox-cart	Bicycle, television, motorcycle, sometimes ox-cart.

Table 3: Wealth Ranking Criteria

By combining these indicators, the research teams assessed whether families belonged to the poorest, the poor or the better off groups. It was found that 55 per cent of the respondents were in the *poorest* category in 1992. This decreased to 39 per cent in 1998, indicating that 16 per cent of the *poorest* respondents had improved their economic status by 1998. Thirty one per cent of respondents were *poor* in 1992 and this had increased to 40 per cent by 1998. The percentage of those classified as *better off* increased from 14 per cent in 1992 to 21 per cent in 1998. In general, the wealth ranking method shows that workers wealth had increased by 1998.

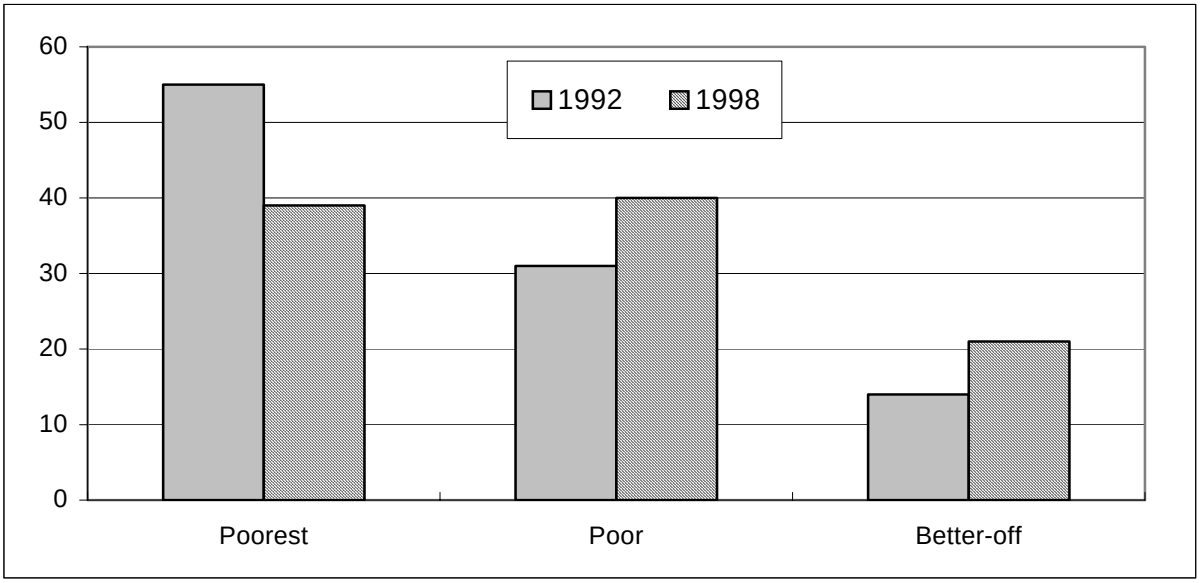


Figure 2: Respondent's Wealth Ranking in 1992 and 1998 (Appendix 2, Table B)

The impact of wage earnings from the ACCP in terms of gender showed a striking improvement. In 1992, 20 per cent of men were in the better off category. In 1998, the level of men in this category was the same. However, there was a considerable improvement in the proportion of better off women respondents. In 1992, only eight per cent of women were in the better off category. By 1998, this had risen to 22 per cent.

Category	Men				Women				Total			
	1992		1998		1992		1998		1992		1998	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Better off	6	20	6	20	3	8	8	22	9	14	14	21
Poor	10	33	13	43	11	31	13	36	21	31	26	40
Poorest	14	47	11	37	22	61	15	42	36	55	26	39

Table 4: Wealth Ranking by Gender in 1992 and 1998

The number of men and women in the poor category also increased by 1998. While the number of both men and women in the poorest wealth category had significantly decreased by 1998. This indicates that employment in the ACCP had a positive effect on poverty for most workers.

Motivation for Employment

The driving force for seeking employment for most workers was to meet their subsistence needs from the wages they earn with the ACCP. In the wet season workers are busy with their rice-fields and are not seeking to earn wages during that period. In the dry season, most workers are free from rice farming activities and would like to earn wages through employment in the ACCP. However, the major clearing and cleaning activities for ACCP occurred during the wet season when the vegetation grows at a faster rate, requiring more labour to control it. Many of the poor and poorest interviewees with little or no land worked with the ACCP throughout the year. They worked to earn income that they could not gain through rice production.

The wages earned by respondents are considered as off-farm income. Some informants reported that 50 per cent of their income was from on-farm activity while the other 50 per cent came from work on the ACCP. Only 12 respondents indicated that they spent income from the ACCP differently to other incomes. Thirteen respondents reported that the earnings from the ACCP were only intended to repay debts. Eight interviewees intended to save their earnings for future needs. One interviewee wanted to buy a television for entertainment. Two interviewees intended to buy bicycles to go to work. Three interviewees anticipated buying medicine for seriously ill family members. One informant intended to spend the money on education and others planned to spend it on entertainment and/or to buy cigarettes, etc.

Recruitment and Working Conditions

Recruitment and Selection

When recruiting workers, supervisors informed the villages around the Angkor Park that labour was needed and that anyone could apply. Most workers were selected by considering criteria like strength, health, availability and the ability of the worker to finish the assigned task. In the commune offices and around the Angkor Park information boards displayed the recruitment and selection procedures. However, only a few individuals indicated that they understood the displays because most respondents were illiterate.

Respondents were asked how they heard about the employment opportunities in the ACCP. Most workers found out through friends and relatives (68%). Project staff contacted some workers directly (21%). The rest of the workers (11%) were informed by commune and village chiefs, supervisors and group leaders or through the information boards.

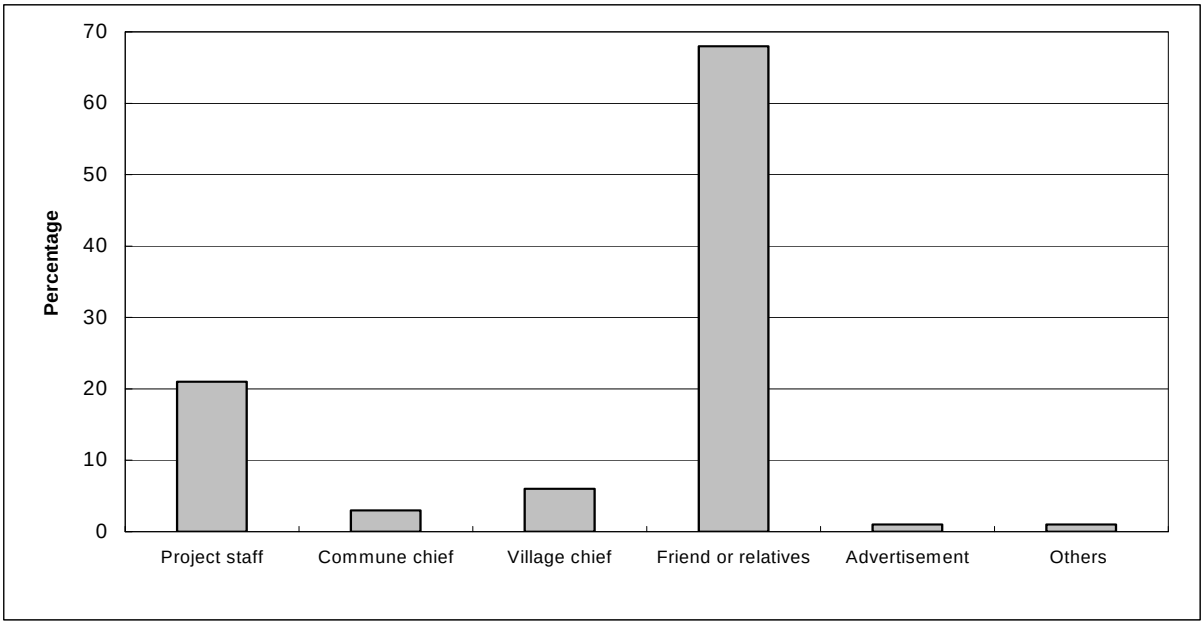


Figure 3: How Workers were informed about the ACCP

Most respondents reported that they experienced fair recruitment and selection. They said there was little favouritism and anyone could apply if they were suitable for the work. Nevertheless, some workers reported that supervisors recruited friends and relatives. The majority (94%) reported that they were recruited directly by supervisors. The remaining five per cent of workers were recruited through the village and commune chiefs.

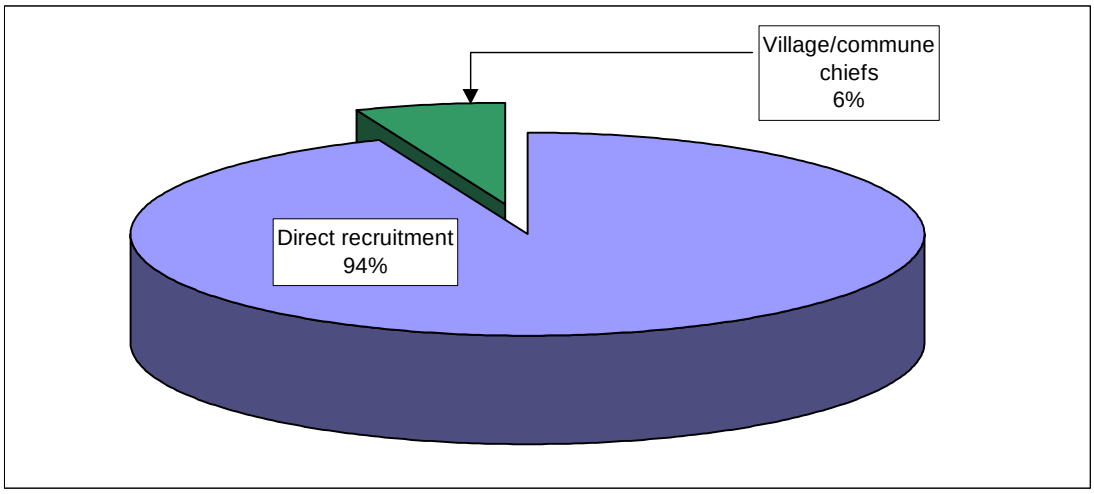


Figure 4: Recruitment Method for ACCP Workers

One of the ILO's main objectives was to provide employment opportunities to disadvantaged rural people: handicapped people, returnees and female-headed households. It was found that many handicapped workers or their families had opportunities to be employed in the ACCP. However, according to the supervisors, handicapped workers were not always able to perform the physical tasks that were set. Many disabled people preferred to send other family members to work in the ACCP while they engaged in their own rice field work or other small private enterprise activities.

Photograph 1: Handicapped Workers in the ACCP

Although there were few disabled workers in the project, the respondents informed researchers that there were many family members of handicapped people working with the ACCP. In the ACCP, female workers were preferred over male workers. The supervisors reported that women were more serious about the work and they finished their work on time and to a high standard.

Working Conditions

Perceptions of working conditions varied quite significantly from worker to worker. Some workers reported that the ACCP work was too hard or difficult. Other workers reported the opposite. Although the majority (67%) reported that the work was not hard or difficult, 19 per cent complained of too much work. The remaining 14 per cent found it hard in the beginning, but adapted to the work and no longer reported problems. There was no significant difference between men and women in this regard.

Working times were from seven to eleven a.m. and from one to five p.m. from Monday to Friday. In theory, workers who finished their allocated tasks before five p.m. could go home. One supervisor reported that if workers did not finish work on time, they would not be permitted to go home. In most cases, supervisors reported working based on task work. This meant working until an agreed task was complete, usually for six to seven hours.

Most informants were positive about their supervisors and group leaders (92%). There were no major complaints about working conditions, timeliness of wage payments, penalties for those who started work late or undue strictness on quantity and quality controls. Eight per cent of informants complained that supervisors were too strict and criticised the workers too often. One respondent complained about longer working times.

Wage Payment and Workdays

Wage Payment

In 1992 and 1993 the ACCP used the US dollar as the currency of payment as the Riel was fluctuating wildly. In 1996, the Ministry of Rural Development (MRD) began its labour-based road program. By this time, the Riel had stabilised to a new exchange rate of approximately 4,000 Riel to the dollar. The MRD paid the workers 4,000 Riel to complete the day's task. The ACCP used this as a standard from 1997 to 1998. Since the involvement of World Food Program (WFP) in 1994, until the termination of ILO's support for the ACCP, payment was made half in cash and half in food (kind). Payment in kind (rice, salt, canned fish and vegetables) was made through the WFP Food-for-Work program. The following table shows the payment systems used at different periods of the ACCP.

Type of payment		**Period**	
		1992-1993	**1994-1998**
Cash		US$ 1/day	2000 Riel/day
Food	Rice	-	3 Kg
	Salt	-	0.03 Kg
	Fish in can	-	0.07 Kg
	Vegetable oil	-	0.05 Kg

Table 5: Wage Payment in Cash and in Kind

Sixty per cent of the respondents indicated that the wage was enough for subsistence. They reported that their daily income was better than the wages paid by private employers in Siem Reap town. However, some workers (40%), mostly with large families, found it difficult to live on one dollar per day. If two or more family workers worked with the ACCP, the household could live better. Around five per cent of the workers reported that one or more additional family members had worked on the project.

Five per cent of interviewees reported that they were penalised for not starting work on time and not finishing the assigned task by 5 p.m. Although it was reported infrequently, salary cuts seemed to occur in the ACCP.

Respondents reported a variety of other income sources for their households. Many earned additional income from their farms or worked for wages on other farms. Some raised pigs and chickens or produced household goods to sell as a means of earning extra income. Some worked at other jobs in the private sector, like in hotels, restaurants or construction projects in Siem Reap town. Workers with large families usually sought additional income in town.

Payment Preference

Many informants had experience with payment in kind: either payment half in cash and half in kind through other ILO supported projects, or payment in kind through WFP Food-for-

Work projects. The research team asked informants to indicate the mode of payment they preferred and why. The following figure shows respondent's payment preferences.

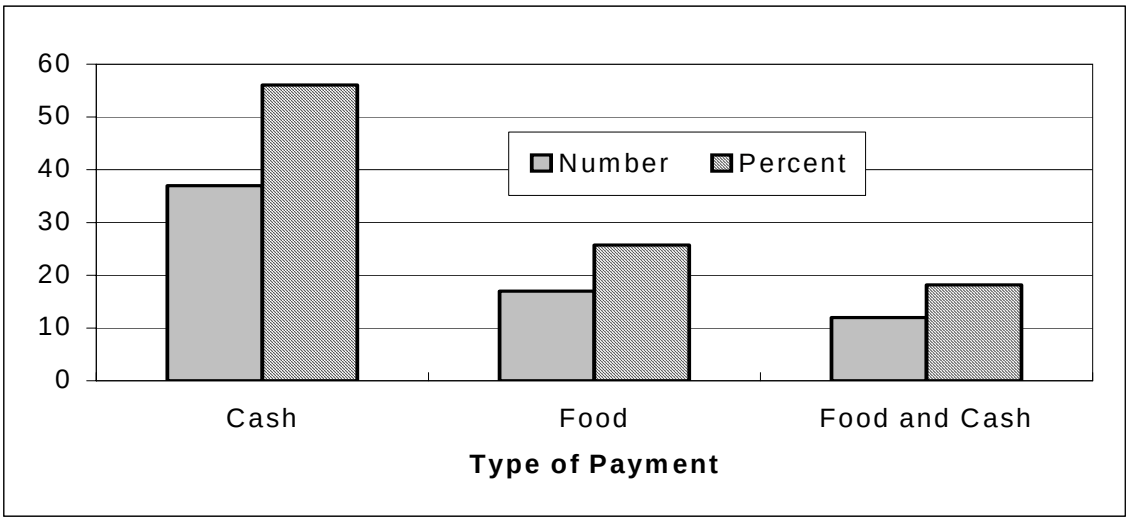


Figure 5: Preference for Payment

The majority of workers preferred payment in cash (56%). However, 26 per cent preferred payment in food and 18 per cent preferred a combination of food and cash. Sixty per cent of the male respondents preferred cash – compared to 53 per cent of female respondents. The following figure shows the payment preferences by gender.

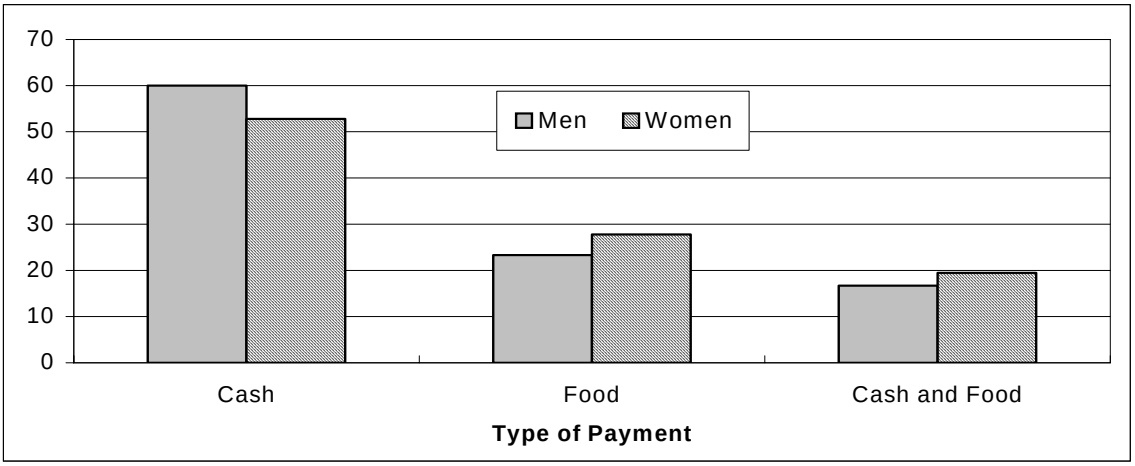


Figure 6: Preference for Payment by Gender

The main reasons for preferring cash payment were:

- Some respondents argued that the availability of rice in the market at a relatively lower price provided a relative advantage for cash over food payment.
- With cash, workers could choose to buy different types of food.
- For most workers cash was easier to carry as food is heavier.

- A few respondents (3) preferred cash to repay debts.
- Those who travelled long distances to work often preferred cash, as it was easier to carry.
- Some respondents complained about delays mostly in the payment of food (kind).
- Six respondents mentioned that cash was more convenient to buy assets like jewellery.
- Eight respondents preferred cash payment, as it could be used for basic expenditures like school and medical expenses.

A significant proportion of workers (40%) preferred payment in kind, or a combination of cash and food. Twenty three per cent of men and 28 per cent of women preferred payment in kind and 17 per cent of men and 19 per cent of women preferred payment in kind and cash. The main reasons were:

- Some workers who live far from the market need rice because they have insufficient crop production for household consumption. Where road access is poor, it was difficult to transport the food they received as wages and some workers reported high transport costs.

- Some male workers (9) spent their money on cigarettes, alcohol and karaoke. No female workers reported these expenditures. Therefore, more male workers favoured cash while more female workers preferred wage payment in kind.

A high proportion of respondents from the better off (93%) and the poor (58%) wealth categories preferred cash. Although the majority preferred cash, a significant proportion preferred payment in kind. Many of the poorest preferred food (42%) while their preference for cash was comparatively low at 35 per cent. The same proportion of the poor and poorest workers preferred payment in food and cash (23%). The following figure shows payment preference by wealth ranking.

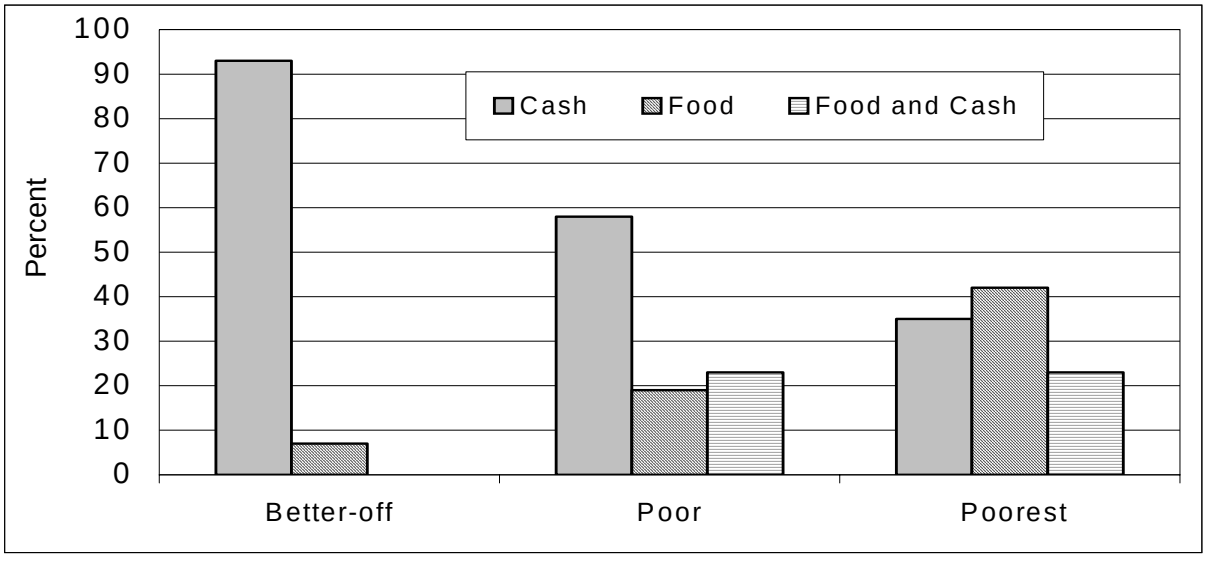


Figure 7: Payment Preference by Wealth Ranking (Appendix 2, Table D)

Workdays

Between 1992 and 1998 the Angkor Clearing and Cleaning Project generated 361,956 workdays. This exceeded the project aim of generating 50,000 workdays per year. Women carried out 55 per cent of these workdays and men the remainder. The highest number of workdays for the project was recorded in 1996 with 83,799 workdays. The lowest number of workdays was generated in 1992 with 806 workdays when the project first began. The following figure shows the workdays generated by the project for each year.

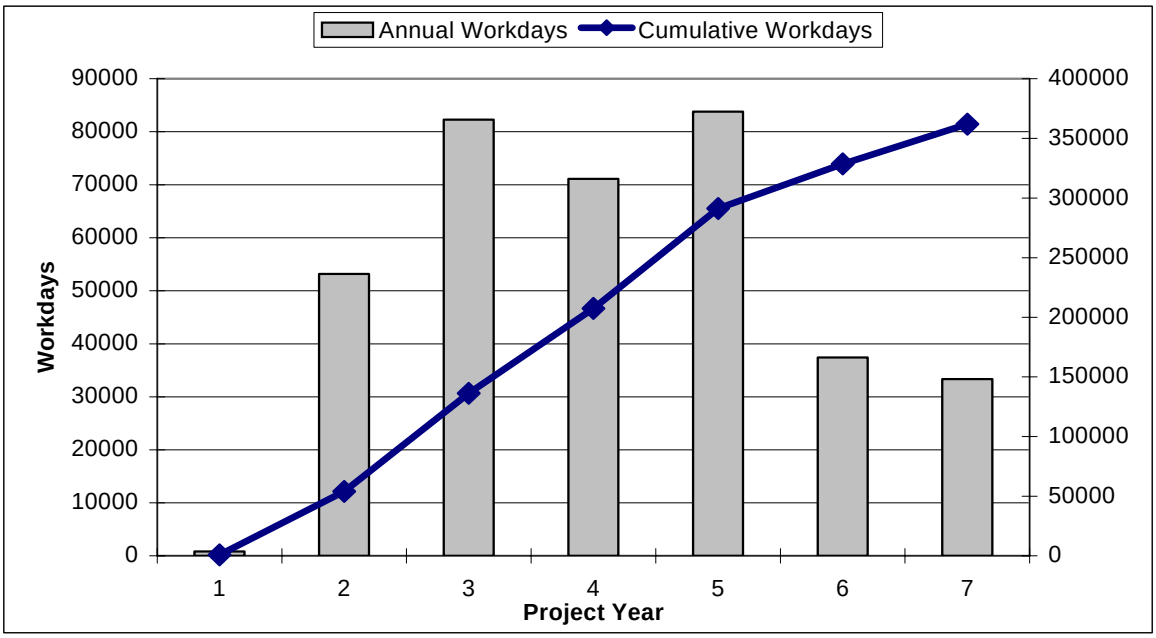


Figure 8: Total and Cumulative Workdays for ACCP by Year

Work in the ACCP occurred in three major areas: Angkor Wat, Angkor Thom and elsewhere in the Angkor Park outside Angkor Wat and Angkor Thom like Kroal Ko, Bantaey Kdey and Ta Prohm. Most activities were carried out in the Angkor Wat area where 41 per cent of the total workdays were generated. Twenty four per cent of the workdays for the project were generated in and around Angkor Thom. The remaining 35 per cent were generated elsewhere in the Angkor Park. The following table shows workdays by activity.

Activity	Angkor Wat		Angkor Thom		Elsewhere		Total	
	Workdays	*%*	*Workdays*	*%*	*Workdays*	*%*	*Workdays*	*%*
Moat cleaning	76,280	51	-	-	-	-	76,280	21
Clearing grass	65,957	44	23,114	27	21,552	17	110,623	31
Removing vegetation	1,486	1	60,555	70	80,462	64	142,503	39
Drainage maintenance	1,477	1	-	-	-	-	1,477	1
Planting trees	-		-	-	11,439	9	11,439	3
Other [8]	4,082	3	2,959	3	11,993	10	19,034	5
Total	**149,282**	**100**	**86,628**	**100**	**125,446**	**100**	**361,356**	**100**
Percent of the Total	**41%**		**24%**		**35%**		**100%**	

Table 6: Summary of Activities by Site

Project activities were classified into six major categories: moat cleaning, clearing and cleaning grass, removing vegetation, drainage maintenance, planting trees and other activities. The major activity in generating workdays was removing vegetation (39%) followed by clearing and cleaning grass (31%) and moat cleaning (21%). In the process of clearing and cleaning monuments, workers also uncovered several monuments in the ACCP.

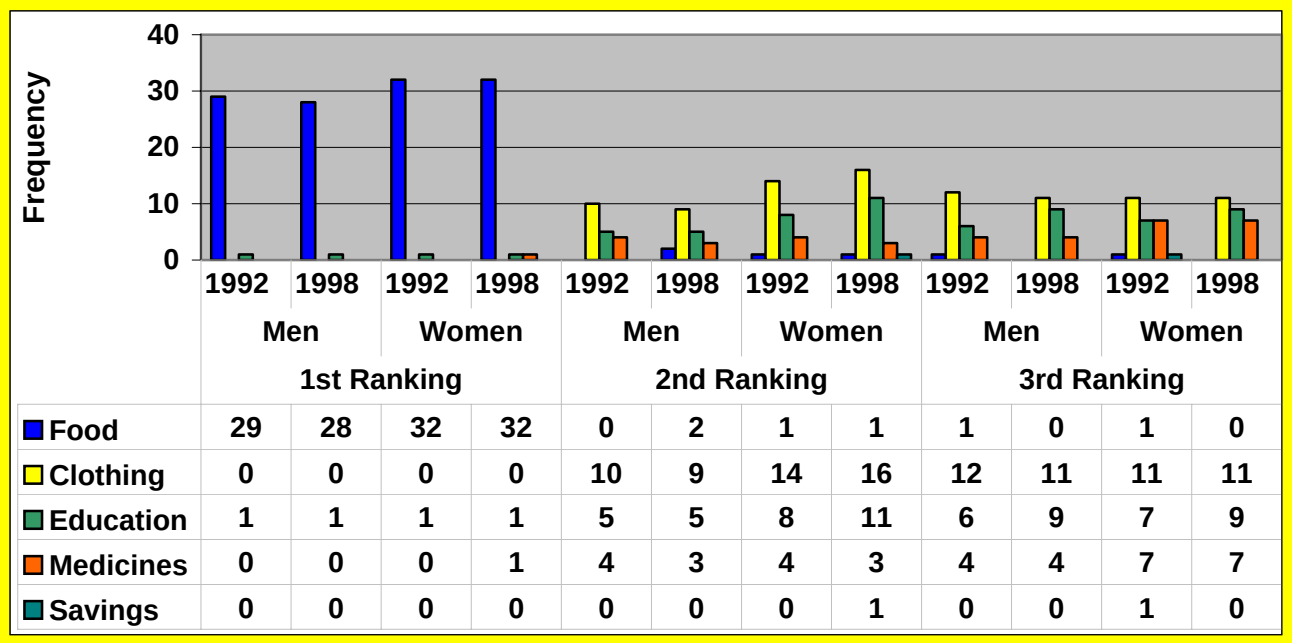
Photograph 2: ACCP Workers Uncovering a Monument

[8] Other activities included road, ditch and drainage maintenance and supervision of the ACCP.

Expenditure of Wage Earnings

One of the main objectives of the study was to explore the impact of wages earned from the ACCP on workers and their families. Respondents were asked how they used the money earned from working on the project.

In general, the cash earned from the project work was combined with other on-farm and small-scale enterprise income. Informants were asked to specify what items their household spent money on and to rank them from the most important to the least important expenditure. Respondents found this difficult particularly when recalling expenditures from 1992. The majority of respondents ranked food as the first and most important expenditure. There was little difference between the wealth rankings in this regard. The poorest workers usually bought basic food items like fish, vegetables and meat. However, the poor and the better off were able to buy fresh foods with better quality.



	1st Ranking				2nd Ranking				3rd Ranking			
	Men		Women		Men		Women		Men		Women	
	1992	1998	1992	1998	1992	1998	1992	1998	1992	1998	1992	1998
Food	29	28	32	32	0	2	1	1	1	0	1	0
Clothing	0	0	0	0	10	9	14	16	12	11	11	11
Education	1	1	1	1	5	5	8	11	6	9	7	9
Medicines	0	0	0	1	4	3	4	3	4	4	7	7
Savings	0	0	0	0	0	0	0	1	0	0	1	0

Figure 9: Expenditure Ranking by Gender for 1992 and 1998 (Appendix 2,Table E)

No gender differences were observed in spending on food. Clothing was the second ranked expenditure for men and women ranked medicines as the second expenditure. Education, medicines and savings were among the third ranked expenditures for both genders.

All wealth categories indicated that food was the first priority expenditure. For the poorest households, medicine was the second priority expenditure, demonstrating the poor health condition of these families. Clothing was the second priority expenditure for the poor and the better off households. For the poorest, clothing and debt repayment were ranked third and

fourth respectively. Savings were the fourth priority expenditure for the better off. For poor workers buying farm tools was the fourth priority expenditure.

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

Table 7: Expenditure Ranking by Wealth Category

Conclusions

This study aimed to examine the impact of wage labour in the ILO supported ACCP on workers and their households. Sixty-six workers were interviewed and 55 per cent of them were women. Employment opportunities for women in the ACCP were higher than in other ILO supported labour-based projects in Cambodia. Fifty five per cent of the total work force in the ACCP was women. In other ILO labour-based projects, the average proportion of women was 43 per cent.

Forty seven per cent of informants were between 17 and 25 years of age and 26 per cent of the informants were older than 35. The average number of daily workers during the project was 300. Most workers (82%) came from Kouk Chak commune in Siem Reap District near the Angkor Park.

Wealth Ranking

In 1992, 55 per cent of the workers fell into the poorest wealth category. By 1998, this figure had declined to 39 per cent. This indicates a positive impact of wage earnings on the workers. In 1992, 31 per cent of the workers were classified as poor and 14 per cent as better off. By 1998, the proportion of poor and better off workers had increased to 40 per cent and 21 per cent, respectively. This shows a positive impact in improving poverty for ACCP workers. It is important to note that in 1992, most workers were in the poorest category. This indicates that the project was successful in reaching the poorest people and creating employment opportunities for them.

Female workers showed greater wealth improvements than male workers did. In 1992, 61 per cent of the poorest were women whereas by 1998 this had declined significantly to 42 per cent. For men in the poorest category, there was a smaller improvement from 47 per cent in 1992 to 37 per cent in 1998. The proportion of women in the better off category increased from eight per cent in 1992 to 22 per cent in 1998. The proportion of men in the better off category remained constant at 20 per cent. In general, wealth ranking showed a substantial decrease in poverty for the ACCP workers particularly for women.

Recruitment and Working Conditions

Supervisors generally publicised the availability of employment to the population around the work site. According to the informants, workers were mainly selected based on their strength, health and availability for the long-term. Although several notice boards were used to display the recruitment and selection procedure, few workers could read and understand the notices, as they were illiterate. Friends and relatives informed most workers about the employment opportunity (68%). In general, informants reported that the recruitment process had been fair and transparent.

Wage Payment

In the early phase of the project (1992-1994), workers were paid in US Dollars at the rate of one dollar per day. From 1994 to 1998, workers were paid half in cash and half in kind. The ILO paid in cash while the WFP paid in kind (food). The total wage value during the latter phase of the project (1994-1998) was greater than one dollar per day, since the WFP food could be converted in the market to more than US$ 0.50

Fifty six per cent of the workers preferred to be paid entirely in cash. More female informants preferred payment in kind (28%) than men did (23%). Men reported needing the cash to buy goods from the market while women needed food for household consumption. The main reason respondents reported for preferring cash was the opportunity to buy different goods from the market. A high proportion of the better off (93%) and the poor (58%) respondents preferred payment entirely in cash.

Workdays

Over 361,000 workdays were generated by the ACCP and women accomplished 55 per cent of these. This proportion is higher than in other ILO supported labour-based programs, where women undertook 43 per cent of the workdays on average. Among the three main work sites of the project (i.e. Angkor Wat, Angkor Thom and elsewhere) almost half of the workdays (41%) were used in the Angkor Wat area. Twenty four per cent of the workdays were spent in Angkor Thom and the other 35 per cent of the total workdays were elsewhere in the Angkor Park.

In terms of activities, removing vegetation generated 39 per cent of the total workdays for the project. Moat cleaning and clearing and cleaning grass accounted for 52 per cent of the total workdays of the project while the other activities took up only nine per cent.

Expenditure of Wage Earnings

Most workers, women and men, from the poorest to the better off, reported food as their first priority expenditure. This was true for 92 per cent of the workers interviewed. Expenditures on clothing were the second priority for the poor and the better off. Buying medicines was the second priority for the poorest workers, while the better off informants did not rank this expenditure. In general, expenditure for investment was low for the better off workers and almost non-existent for the poor and the poorest respondents due to the subsistence nature of their household income.

References

Bruzelius, Nils and Sture Hjelm, (2001), Labour Based Methods: Issues and Prospects. Unpublished Report, October 2001.

Centre for Advanced Study, (2000), Employment in ILO Supported Road Construction and Maintenance: The Impact of Wage Earning on Workers. Phnom Penh, Cambodia.

International Labour Office Bangkok, (2002), The Work of Giants: Rebuilding Cambodia. Brain Wenk and Nick Rain, ILO-Bangkok, Thailand.

International Labour Organisation (2000), Employment-Intensive Investment in Infrastructure: Jobs to Build Society. ILO-Geneva, Switzerland.

International Labour Organisation (1998), Of Nets and Assets: effects and impacts of employment-intensive programmes - A review of ILO experience. Development Policies Department, ILO-Geneva, Switzerland.

Kent Helmers, Chan Neang and Kien Vaddanak, (1997), Poorer Cambodian Rural households Participating in Food for Work: Income and Expenditure Patterns, Strategies to Access Rice, Rice Food Security Status and Related Findings on Food Insecurity and Rural Poverty. September 1997, Phnom Penh, Cambodia.

Ministry of Commerce (2000), Cambodia: Opportunities for the New Millennium, Travel & Tourism Industry. Phnom Penh, Cambodia.

Stock, Elisabeth A. and Jan de Veen (1996): Expanding Labour-based Methods for Road Works in Africa, SSATP Working Paper No 22. World Bank, Washington, United States.

United Nations Development Programme/International Labour Organisation (1999), Terminal Report: CMB/95/011. UNDP/ILO, Phnom Penh, Cambodia.

United Nations Development Programme (1992), Labour Based Infrastructure Rehabilitation Programme: UNDP Project Document CMB/92/008. UNDP, Phnom Penh, Cambodia.

United Nations Development Programme (1996), Labour Based Infrastructure Rehabilitation Programme: Termination Report. UNDP, Phnom Penh, Cambodia.

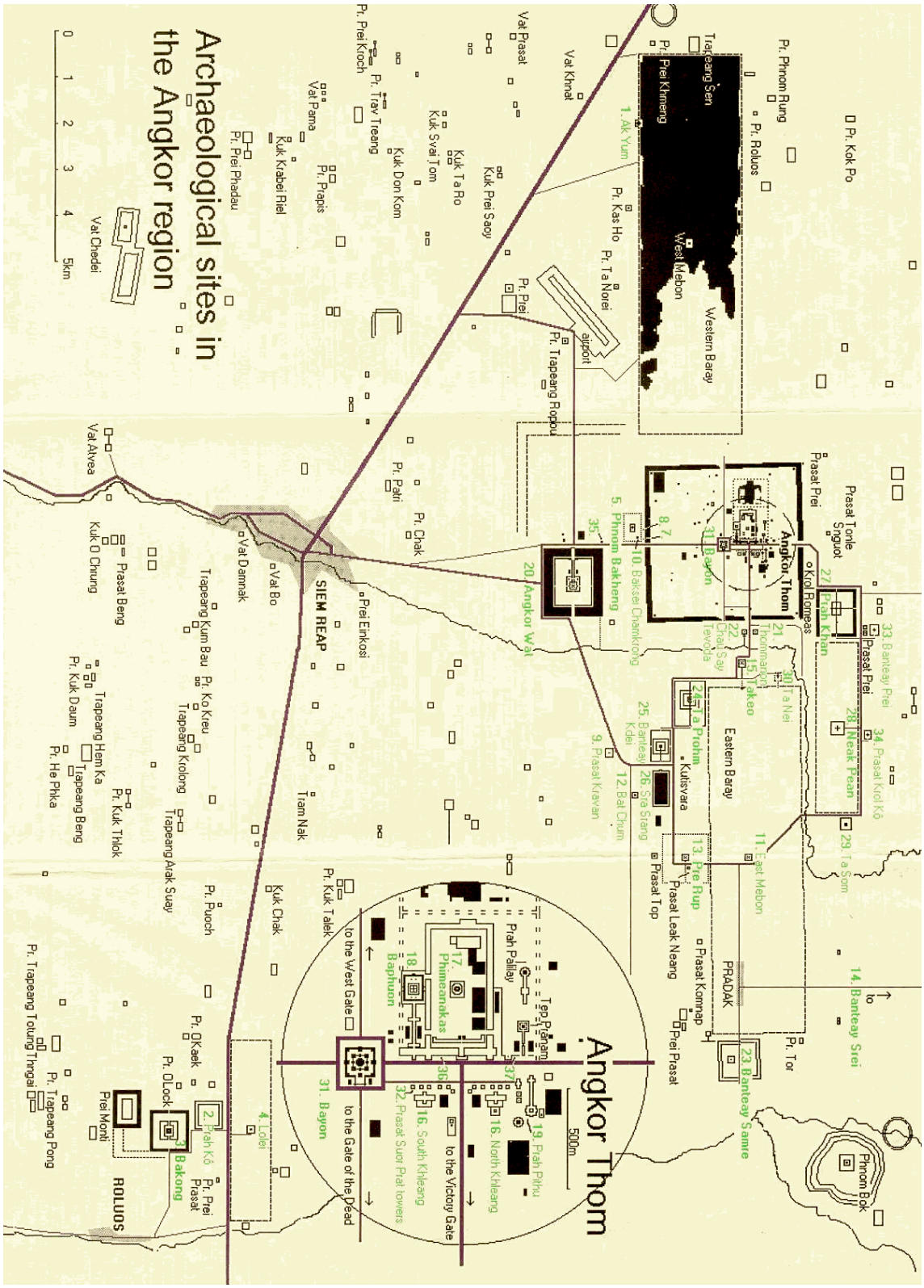
United Nations Development Programme/International Labour Organisation (1994), Labour Based Technology for Infrastructure Development and Maintenance in Cambodia, Future Strategy Document, Project CMB/92/008. April 1994, Phnom Penh, Cambodia.

United Nations Educational, Scientific and Cultural Organisation (2001), Culture, Tourism and Development: Assessment, Prospects and Proposals for Angkor. Expert Report on Tourism Development at Angkor – Stephane Durand for UNESCO, April 2001.

Zemp Expert Team (1993), Zoning and Management Plan for Angkor.

Appendices

Appendix One: Map of Angkor Wat Area



Appendix Two: Additional Tables

Village	Commune	District	Number of Respondents	Percentage
Veal	Kouk Chak	Siem Reap	7	11
Trapeang Seah	Kouk Chak	Siem Reap	3	5
Norkor Krao	Kouk Chak	Siem Reap	22	33
Se Reiy	Kouk Chak	Siem Reap	1	2
Sorth Teaksin	Kouk Chak	Siem Reap	1	2
Kouk Beng	Kouk Chak	Siem Reap	8	12
KoukTnoat	Kouk Chak	Siem Reap	7	11
Kvien	Kouk Chak	Siem Reap	1	2
Srah Srang	Kouk Chak	Siem Reap	1	2
Sra Ngae	Sra Ngae	Siem Reap	1	2
Samroang	Leang Dai	Angkor Thom	3	5
Doun Ov	Leang Dai	Angkor Thom	4	6
Leang Dai	Leang Dai	Angkor Thom	5	7
Prey Chas	Teuk Vil	Puok	1	2
Sandan	Teuk Vil	Puok	1	2
Total			**66**	**100**

Table A: Respondents by Village, Commune and District

Indicators	Poorest				Poor				Better off			
	1992		1998		1992		1998		1992		1998	
	#	%	#	%	#	%	#	%	#	%	#	%
Housing	41	62	25	38	13	20	17	26	12	18	21	32
Cultivated Land	28	42	25	38	33	50	37	56	5	8	4	6
Animals	26	39	36	55	30	45	22	33	10	15	8	12
Assets	50	76	14	21	6	9	31	47	10	15	21	32
Average	**36**	**55**	**26**	**39**	**21**	**31**	**26**	**40**	**9**	**14**	**14**	**21**

Table B: Wealth Ranking Indicators for 1992 and 1998

Type of Payment	Men		Women	
	Number	%	Number	%
Cash	18	60	19	53
Food	7	23	10	28
Cash and Food	5	17	7	19
Total	**30**	**100**	**36**	**100**

Table C: Preference for Payment by Gender

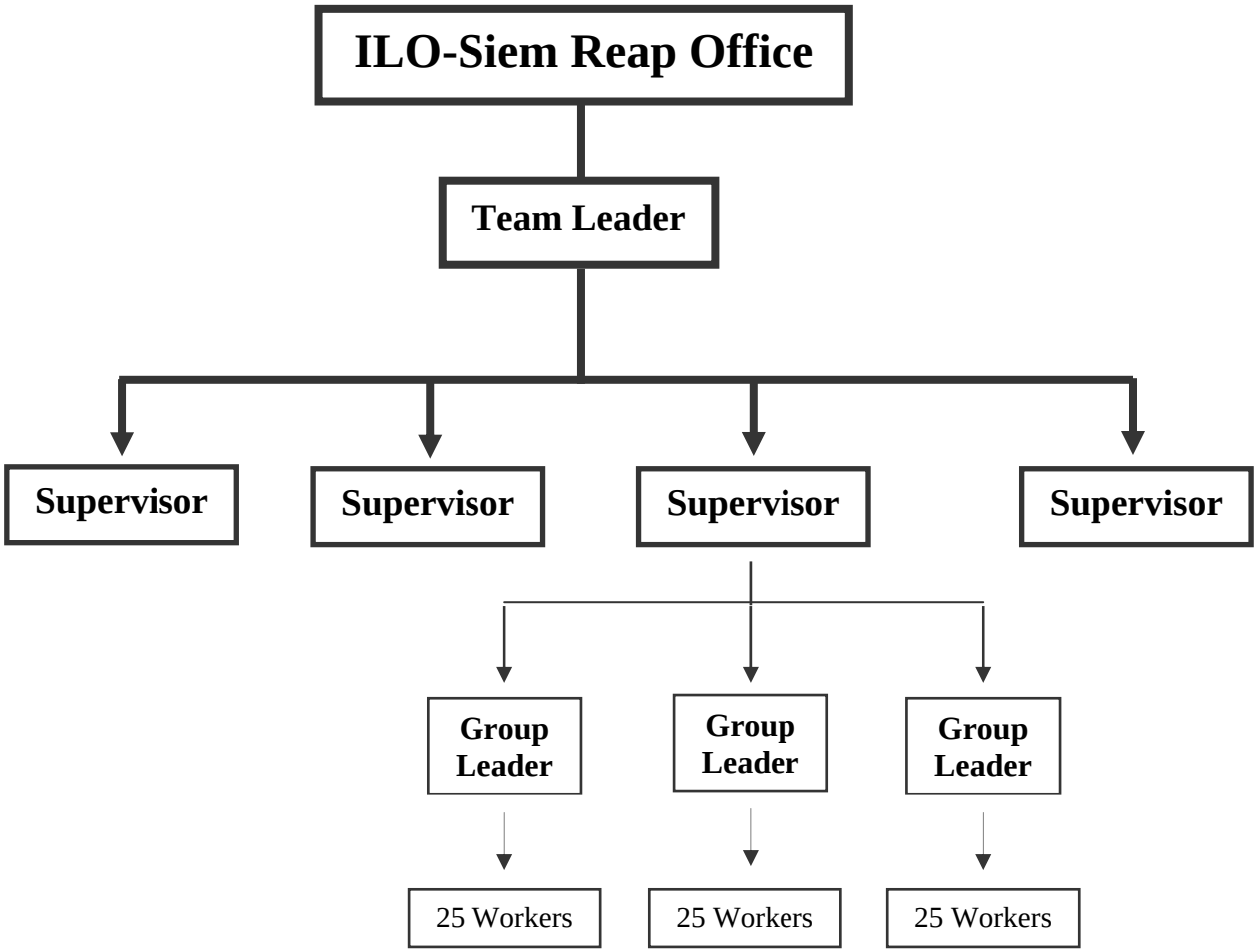
Type of Payment	Poorest		Poor		Better off		Total	
	Number	%	Number	%	Number	%	Number	%
Cash	9	35	15	58	13	93	37	56
Food	11	42	5	19	1	7	17	26
Food and Cash	6	23	6	23	0	0	12	18
Total	**26**	**100**	**26**	**100**	**14**	**100**	**66**	**100**

Table D: Payment Preference by Wealth Ranking

Type of spending	1st Ranking				2nd Ranking				3rd Ranking			
	Men		Women		Men		Women		Men		Women	
	1992	1998	1992	1998	1992	1998	1992	1998	1992	1998	1992	1998
Food	29	28	32	32		2	1	1	1		1	
Clothing					10	9	14	16	12	11	11	11
Education	1	1	1	1	5	5	8	11	6	9	7	9
Farm inputs					1							
Farm animals		1			3	3	3	1	4	2	1	2
Investment in trade											1	1
Household equipment			2	1	7	8	5	3	2	2	5	5
Transport				1			1		1	2	1	1
Medicines				1	4	3	4	3	4	4	7	7
Savings								1			1	
Jewellery			1								1	
Total	**30**	**30**	**36**	**36**	**30**	**30**	**36**	**36**	**30**	**30**	**36**	**36**

Table E: Expenditure Ranking by Gender in 1992 and 1998

Appendix Three: Organisational Chart of ACCP



Appendix Four: Survey Questionnaire

Impact of Wage Earnings on Workers
(Survey Questionnaire)

EXPLANATIONS TO RESPONDENTS

The purpose of this study is to document and to learn from the experiences of the Project. This questionnaire is to obtain information about the people who have worked on the Project and their households. We are asking these questions to some randomly selected Project workers. We would be most grateful if you could assist us by answering these questions. We assure you that the information you provide to us will be kept anonymous and confidential. Your name will not appear on this questionnaire.

Date of interview	
Name of interviewer	
Name of village	
Name of commune	
Form number	

A. Background Data

A.1. Where do you live?

Location	**When start working for ILO**	**Present day**
Village		
Commune		
District		
Province		

A.2. How many persons (including yourself) live in your household (HH)?

When start working for ILO **----------**	**Present day** **----------**

A.3. Please give the following information about all the members of your HH

#	Relationship of HH member to respondent	Sex	Age		Physically disabled adult?		Education			
			When start working for ILO	Present day	When start working for ILO	Present day	When first working for ILO		Present day	
							Literate	illiterate	Literate	illiterate
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

A.4. What is the household background?

Nº	**Condition of the HH**	**Tick where appropriate**	**Remark**
1	**Returned from border camp**		
2	**Returned from elsewhere**		
3	**Long-settled in village (>5 years)**		

A.5. Has any household member worked for the Project? If yes go to the following questions:

Yes ☐ No ☐

A.6. How many of the family members were working?

		Number of family members	Remark
1	**When start working for ILO (number)**		
2	**Present day (number)**		

B. How long did you work with the project?

Household members	*Remarks*
1. Household Head (months/years): ----------	
2. Family member 1 (months/years):--------	
3. Family member 2 (months/years):----------	
4. Family member 3 (months/years):----------	
TOTAL (months/years): ----------	

C. How did you get to know about the employment possibilities with the project?

		Tick where appropriate	Remarks
1	**From *Project* staff directly**		
2	**Commune/village chiefs**		
3	**District officials**		
4	**Contractor**		
5	**Friend or relatives**		
6	**Advertisement**		
7	**Others (specify)**		

D. How were you recruited for the ILO work?

		Tick where appropriate	Remark
1	Direct recruitment		
2	Lottery		
3	Through village/commune		
4	Other (specify)		

E. How often were you paid?

Payment period	Yes	No	Explain briefly if there was any problem during wage payment
Was the payment daily?			
Was the payment weekly?			
Was the payment bi-weekly?			
Was the payment monthly?			

F. What kind and amount of payment did ILO offer you per day?

Payment		When first recruited	Present day	Remark
Cash (Riel)				
Food	Rice (kg)			
	Salt (kg)			
	Soap (pcs)			
	Others			

G. What payment did you prefer?

#	Type of payment	Tick where appropriate	Give the main reason(s)
1	Wage payment		
2	Food payment		
3	Food and wage		

H. What type of work did you do?

#	Type of work done	Tick where appropriate	Remark
1	Moat cleaning		
2	Angkor Wat - inside cleaning		
3	Angkor Thom - inside cleaning		
4	Drainage work		
5	Tree planting		
6	Access road construction		

I. Did your skills improve while you were working in the project?

#	Type of improvement	Tick where appropriate	Why (how)? please explain
1	It improved well		
2	It did not improve		

J. When you were working for ILO did you have other work?

#	Type of work	Full-time (more than 20 hours/week	Part-time (less than 20 hours/week	Length of employment	Pay per day	Remark
1	Farm work (own farm)					
2	Working on other people's farm					
3	Construction					
4	Market trade or shop					
5	Hotel or restaurant					
6	Transport					
7	Domestic/housework					
8	Unemployed					
9	Other (specify)					

K. What work were you doing just before starting work on the project?

		Tick where appropriate	Remark
1	No work or seeking employment		
2	Work on own farm		
3	Work on other people's farm		
4	Other work (specify)		

L. Who was doing your work on the farm, while you were working on the project?

		Tick where appropriate	Remark
1	No other work		
2	Work to be done after completion of project		
3	Work being done by other family members		
4	Work being done by hired workers		
5	Other worker (specify)		

M. Have you worked for other organisations?

Name of organisations			Tick where appropriate	Type of work	Remark
1	Ecole Francaise se I'Éxtreme - Orient				
2	World Monument Fund				
3	COFRAS				
4	Japanese Government Team				
5	UNESCO				
6	LBAT roads (ILO, WFP, SEILA)				
7	Other (specify)				

N. What is the total area of land cultivated by the HH?

		Hectare	Remark
1	When first recruited		
2	Present day		

O. What crops are grown by the HH?[1]

#	Type of Crop	Output (kg)		For sale (kg)		Subsistence (kg)		Whether enough for HH subsistence	
		When start working for ILO	Present day	When start working for ILO	Present day	When start working for ILO	Present day	When start working for ILO	Present day
1	Rice								
2	Vegetables								
3	Maize								
4	Others (specify)								

P. What animals do you have?

		No. of animals		
#	Animals	When start working for ILO	present day	Remark
1	Cows			
2	Buffaloes			
3	Chickens			
4	Ducks			
5	Pigs			
6	Goats/ Sheep			
7	Other(s)			

[1] For each crop, state the approximate output, the proportions or amounts of the output which are for sale and subsistence and whether output is sufficient for HH subsistence.

Q. What material is your house made from?

		Tick where appropriate		Remark
#	Materials	When start working for ILO	Present day	
1	Palm/thatch roof			
2	Tin roof			
3	Tiled roof			
4	Palm/thatch walls			
5	Timber walls			
6	Masonry/concrete walls			
7	Others			

R. What assets do you possess?

		Tick where appropriate		Remark
#	Materials	When start working for ILO	Present day	
1	Radio			
2	TV			
3	Bicycle			
4	Motorbike			
5	Boat			
6	Outboard motor/pump			
7	Cart			
8	Other-specify			

S. Household Income: What was your source of income during and after being a project worker? (Rank in importance 1=highest)

#	Source of Income	Rank in importance 1=highest		Remark
		When start working for ILO	Present day	
1	Rice			
2	Pigs and Animals			
3	Fishing			
4	Chickens			
5	Watermelon			
6	Vegetables			
7	Fruit			
8	Maize			
9	Worker in the Service Sector			
10	Worker in the Construction Sector			
11	Manual worker in other farms			
12	Small Business			
13	Saving & credit			
14	Other			

T. Household Spending: How did (do) you spend the earnings from the project work? (Rank in importance: 1=highest)

		Rank in importance 1=highest		
#	Type of spending	When start working for ILO	Present day	Remark
1	Food			
2	Clothing			
3	Education			
4	Farm inputs			
5	Farm animals			
6	Investment in trade/business			
7	Household equipment			
8	Transport (motorbike/bicycle)			
9	TV			
10	Radio			
11	Entertainment: alcohol, karaoke			
12	Weddings			
13	Religious purposes			
14	Medicines			
15	Savings			
16	Jewellery			
17	others- specify			

THANK YOU FOR YOUR COOPERATION!

Printed in Cambodia First published 2002

International Labour Organization
Technical Assistance to the Labour-Based Rural Infrastructure Works Programme
"Upstream Project" CMB/97/M02/SID

RURAL INLAND WATER TRANSPORT

May Chreiy Village, Puok District, Siem Reap Province, Cambodia

By

Damien Vella

Acknowledgements: The author expresses his appreciation to: H.E. Sous Kong, Under-secretary of State, Ministry of Rural Development; Mr. Pol Samroch, Deputy Chief of Puok District; David Salter, ILO Chief Technical Advisor; Doekle Wielinga, ILO Associate Expert, and the ILO Upstream Project Siem Reap Office; Bas Rozemuller, ILO Associate Expert, and the Socio Economic Team; Erica Miller and Ian Ramage, Editors; and ILO ASIST A-P for their valuable contributions to this study.

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