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Authors	McAndrew, John P.
Publisher	UNRISD
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Interdependence in Household Livelihood Strategies in Two Cambodian Villages

Working Paper 7

John P. McAndrew



**Working
Paper
No. 7**

**CAMBODIA DEVELOPMENT RESOURCE INSTITUTE
IN COLLABORATION WITH THE UNITED NATIONS RESEARCH
INSTITUTE FOR SOCIAL DEVELOPMENT**

Interdependence in Household Livelihood Strategies in Two Cambodian Villages

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John P. McAndrew



**Cambodia Development Resource Institute
in collaboration with the United Nations Research Institute for Social Development
Phnom Penh, December 1998**

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**Interdependence in Household Livelihood Strategies in Two Cambodian Villages—Working Paper 7
December 1998**

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This working paper is one of three related papers stemming from a two-year study on food security in rural Cambodia conducted by the Cambodia Development Resource Institute and the United Nations Research Institute for Social Development. The other two papers are Vincent Tickner, 'Food Security in Cambodia: A Preliminary Assessment' (Geneva: UNRISD, October 1996) Discussion Paper 80, and K. A. S. Murshid, 'Food Security in an Asian Transitional Economy: The Cambodian Experience' (Phnom Penh: CDRI, December 1998) Working Paper 6. The CDRI/UNRISD food security project was supported by a grant from DANIDA.

Preface

At the outset of this paper I would like to acknowledge the contributions of research team members Keo Keriya and Chan Sophal. From early September to late November 1996, our team of three conducted qualitative research in two village communities to complement a broader, quantitative CDRI study on rural household food security undertaken in collaboration with the United Nations Research Institute for Social Development (UNRISD).¹ One study village, Babaong, was located in a rice-surplus area in Prey Veng province. The other village, Trapeang Prei, was located in a rice-deficit area in Kompong Speu province.

In this paper I will present findings and analysis that have emerged from our research. More specifically, I will consider household livelihood strategies in family lineages from each of the two communities (see Parts Two and Three for detailed case accounts). The experiences of these particular families represent, for the most part, the more vulnerable households in the communities.

In Babaong, our research team interviewed 71 of the 462 households in the village. Twenty-two of these accounts are written up in this working paper. In Trapeang Prei, our team interviewed 43 of the 64 households in the village. Nine of these accounts are recorded in this paper. It is hoped that discussion of these limited, though detailed, accounts will help us deepen our appreciation of livelihood security and coping strategies in rural Cambodia.

¹ K. A. S. Murshid, *Food Security in an Asian Transitional Economy: The Cambodian Experience* (Phnom Penh: Cambodia Development Resource Institute, December 1998) Working Paper 6.

Glossary

Acronyms

GRET	Group de Recherche et d'Echanges Technologiques
MCC	Mennonite Central Committee
NGO	non-governmental organisation
UNICEF	United Nations Children's Fund
UNRISD	United Nations Research Institute for Social Development
WID	Women in Development

Place Names

Banteay Meanchey province	ខេត្តបន្ទាយមានជ័យ
Kandal province	ខេត្តកណ្តាល
Kompong Cham province	ខេត្តកំពង់ចាម
Kompong Speu province	ខេត្តកំពង់ស្ពឺ
Phnom Penh municipality	ក្រុងភ្នំពេញ
Prey Veng province	ខេត្តព្រៃវែង
Ratanakkiri province	ខេត្តរតនៈគិរី
Ang Snuol district	ស្រុកអង្គស្នួល
Ba Phnom district	ស្រុកបាភ្នំ
Kompong Trabek district	ស្រុកកំពង់ត្របែក
Mukh Kampul district	ស្រុកមុខកំពូល
Odong district	ស្រុកខដុំ
Peam Ro district	ស្រុកពាមរ
Ponhea Leu district	ស្រុកពញាឮ
Prey Veng district	ស្រុកព្រៃវែង
Samraong Tong district	ស្រុកសំរោងទង

Babaong commune	ឃុំបាបោង
Chanta Sen commune	ឃុំចន្ទសែន
Kambol commune	ឃុំកំបូល
Kompong Trabek commune	ឃុំកំពង់ត្របែក
Ksem Ksan commune	ឃុំក្សេមក្សាន្ត
Phnom Toch commune	ឃុំភ្នំតូច
Prek Pnov commune	ឃុំព្រែកព្នៅ
Prey Kandieng commune	ឃុំព្រែកឈៀង
Trach Tang commune	ឃុំត្រាចទង
Babaong village	ភូមិបាបោង
Bat Doeng village	ភូមិបាត់ដឹង
Bek Chan village	ភូមិបែកចាន
Kakab village	ភូមិកាកាប
Pal Hal village	ភូមិប៉ាល់ហាល
Pong village	ភូមិពោង
Ponley village	ភូមិពន្លៃ
Prey Kandieng village	ភូមិព្រែកឈៀង
Prey Totung village	ភូមិព្រៃទទឹង
Prolung Meas village	ភូមិព្រលឹងមាស
Trapeang Kanseng village	ភូមិត្រពាំងកន្សែង
Trapeang Kralong village	ភូមិត្រពាំងក្រឡូង
Trapeang Prei village	ភូមិត្រពាំងប្រិយ
Trapeang Thma village	ភូមិត្រពាំងថ្ម
Treb village	ភូមិត្រិប
Neak Loeang	ផ្នូកលឿង

Part One

A Comparative View

Chapter One

Rice Productivity and Rice Self-Sufficiency

Interdependence in household livelihood strategies may be understood in two separate ways. One refers to the relationships that exist between productive pursuits undertaken by households to ensure subsistence and security. The other refers to the relationships of mutual assistance that exist within and among households to accomplish these pursuits. With respect to the first, discussions concern such issues as rice productivity and rice self-sufficiency, the diversity of livelihood pursuits and the effects of the market economy on production processes. With regard to the second, debates concern the nature of social cohesion and solidarity in rural communities and the importance of gender well-being in livelihood pursuits.

The accounts in this paper reveal that rice production was an important component of household livelihood strategies in both the flood-recession rice village of Babaong and the rain-fed rice village of Trapeang Prei. In Babaong, it was the major source of subsistence for most households reviewed. Nevertheless, even in Babaong the key livelihood security issue appeared not to be rice productivity alone, since yields were generally higher than three (in some households higher even than four) tons of paddy rice per hectare. Instead, the key issue for most households was rice self-sufficiency. This related directly to a household's entitlement and access to land, draught animals, affordable credit and adequate health care.

1) Access to Resources and Services in Babaong

Access to Land

In Babaong, the amount of land under rice cultivation increased dramatically in the 10-year period from 1986 to 1996. In 1986, the area given to early dry season rice (highland) was 64 hectares and that given to later dry season rice (lowland) 275 hectares. By 1996, the area planted with early dry season rice had increased to 87 hectares, and that planted with later dry season rice to 456 hectares. This represents a 66-percent increase in village lowland planted with rice over the 10-year period.¹

The principal reason for the dramatic increase in land under cultivation was the introduction of irrigation pumps. Greater supply of and access to irrigation pumps allowed villagers to reclaim more land for cultivation. With the *rohat* (pedal-operated irrigation wheel), villagers had been unable to irrigate fields that were distant from or much higher than the water source.

¹ The data for 1986 is taken from an April 1987 report by Chanthou Boua and Ben Kiernan entitled *Oxfam America's Aid Program in Babaong Village, Kampuchea*. The data for 1996 is taken from a report on Babaong statistics provided by village authorities.

By 1986, members of various *krom samaki* (solidarity groups) within the village were able to increase the collective areas they cultivated through the use of irrigation pumps owned by the *krom*. In late 1986, there were eight irrigation pumps in operation in Babaong, and five more had been donated by an NGO. By 1996, there were 115 irrigation pumps in the village, all owned by private individuals.

The increased use of irrigation pumps occurred at a time when the *krom samaki* were in decline. With the demise of collective farming, group members received parcels of land to cultivate on their own. Members usually obtained one parcel of highland and one parcel of lowland. The lowland areas near the irrigation canal were the more productive. In 1985, the highland areas produced an average yield of 0.7 tons of paddy rice per hectare, and the lowland areas 1.5 tons per hectare.² Much like today, none of this land could produce more than one crop per year.

By 1996, with better irrigation and the use of high-yielding seed varieties and fertiliser, production on the lowland areas rose to more than three (and even four) tons of paddy rice per hectare. The productivity of the highland areas remained low. These lands were still dependent on rain⁴ water and lacked access to irrigation. For this reason, it is important to distinguish between a household's access to lowland and highland in Babaong. Undifferentiated figures for land assets in the village do not provide accurate indicators of a household's rice productivity.

Land distribution in Babaong at the end of the *krom samaki* period, based on participation in the labour force, was divided according to membership in a specific *krom*. The fact that land areas and the number of families within each *krom* differed meant that the distribution process was less than equitable.³ Although some households in this study received up to two hectares of lowland, others acquired only half a hectare. Widows and younger couples generally received less land. Other factors have also affected the current status of land distribution. Access to irrigation pumps allowed some family households to reclaim more lowland. Available labour within family groups likewise enabled some households to clear neglected land. Kinship and patronage relations with commune and village authorities also provided some families opportunities for expanding their landholdings. These local officials had control over certain parcels of public land, and were able to allocate them to people in their favour. Up to the 1993 national election, village authorities in Babaong had allowed relatives and friends to clear public lands for private use.

Some family households were able to augment their landholdings over time, but others experienced a fragmentation of their farmland as married children inherited plots from their parents. Although the land distribution at the end of the *krom samaki* period was static, *i.e.* based on the circumstances of the households at a particular moment in time, the composition of the households was dynamic and evolved over time. Fragmentation of family farms had, in some cases, been offset by land acquisition through marriage, but this trend was unlikely to continue in successive generations.

Once land rights were held by private owners, a market emerged in Babaong with villagers buying, selling and mortgaging property. The emergence of the market partly explains the current unequal distribution of land among households, but the present disparities seem to stem more from inequities experienced in the distribution process coupled with the divergent capacities of households to clear and reclaim land after the *krom samaki* period.

² See Boua & Kiernan (1987:5).

³ See Boua & Kiernan (1987:17).

Land access in the case accounts

Since the accounts in this paper focus primarily on more vulnerable households and, in some instances, their better-off relatives, they do not directly include households in the upper end of the land distribution spectrum. However, even among the 22 Babaong households considered, the distribution of rights to village lowland is rather unequal.

The range among the households reviewed varies from two households that had no access at all to Babaong lowland to one household that had almost 2.9 hectares. One of the households that had no lowland in Babaong did, however, have a parcel of rain-fed rice land in another village.

Ten of the 21 households for which data were available had rights to less than 0.5 hectares of lowland. These included the two households without any village land. By contrast, six of the 21 households had rights to more than 1.0 hectares of lowland.⁴ Four of the six households with more than 1.0 hectares had cleared land and one had purchased land in addition to what they had received at the end of the *krom samaki*.

Land sales and purchases in the case accounts

More than half (13 out of 22) of the households included in the Babaong accounts had been involved in some type of land transaction since the dissolution of the *krom samaki*. Eight of these households had sold land, and some had sold more than one parcel.

The most common reason for selling land was to pay for medical expenses. One widowed mother had sold a small plot of her lowland for 1.5 chis of gold in 1994 to treat her son's disabled leg. More recently, she had sold a plot of highland to treat her own tuberculosis. A married couple had sold a parcel of lowland to pay for the treatment of their two young sons. Another married couple had mortgaged a parcel of lowland for three chis of gold in 1993 to pay for medical treatment received by their children. One young mother had sold a 0.1-hectare plot of highland in 1996 to meet health costs after she suffered adverse effects from a birth control injection. A father had sold a plot of highland for four chis of gold in 1993 for medical treatment needed after he was arrested and beaten on suspicion of robbery and murder. A widowed mother with chronic tuberculosis had sold a portion of her house lot for 3.5 chis of gold in 1996 to pay debts accrued for the treatment of household illnesses.⁵

Illness was not the only reason households sold land in Babaong. A blind father had sold two plots of highland in 1994 to buy rice to feed his household. A widowed mother had sold a portion of her house lot in 1993 to pay for the wedding of her blind son. A married couple had sold a parcel of lowland in 1995 to pay gambling debts.

Although eight Babaong households included in the study had sold land, five others had purchased it. In one family, a mother and father had purchased a parcel of lowland from a married daughter in 1994 for two chis of gold. Interestingly, the parents had given the parcel to the daughter at an earlier date as her inheritance. In this same family, a married sister had purchased an inherited 0.1-hectare parcel of lowland from an older married sister in 1995 for two chis of gold. Still in the same family, another married sister had purchased a 0.5-hectare parcel of lowland from a widow with gambling debts for four chis of gold in 1995.

Another instance involved a husband and his first wife, who purchased a 0.4-hectare parcel of lowland in 1991 for one chi of gold. The couple already had rights to two hectares

⁴ K. A. S. Murshid's study—*Food Security in an Asian Transitional Economy: The Cambodian Experience* (Phnom Penh: Cambodia Development Resource Institute, December 1998) Working Paper 6—reports that Babaong households owned on average 1.45 hectares of land. Considered separately, female-headed households owned on average only 0.98 hectares of land (Murshid 1998:29–30).

⁵ In 1996, the official exchange rate was 2,624 riels to one US dollar. The average gold price in 1996 was 117,925 riels (\$44.90) to one chi.

of lowland from the *krom samaki* and 0.5 hectares from clearing land themselves. The husband's second wife had also recently purchased a small plot of highland from an elderly woman in the village for one chi of gold.

Although the amount of land owned of land among the vulnerable groups studied in Babaong was relatively small, almost all households had some access to land. This may be due to two factors: the recent distribution of land and the relatively low population density. Patterns of land distribution in Babaong were uneven, but patterns of stratification had yet to emerge on the basis of land tenure relationships. Unlike in other parts of Southeast Asia, there were no clearly defined village sub-classes of landlords, tenants and landless workers. Land ownership allowed even those with limited access to benefit from the productive rice regime. It likewise provided them with crop and property collateral to open lines of credit.

Access to Labour and Draught Animals

All the rice producing households reviewed in Babaong had some access to labour for cultivation. However, in several households it was the wives and unmarried daughters who assumed the burden of the work. The 24-year-old wife of a blind man did most of the rice cultivation for their household. The 21-year-old unmarried daughter of a widow did most of the cultivation for her mother and handicapped brother. The 40-year-old wife of another blind man and her 17-year-old daughter did most of the cultivation tasks for their household. The 28- and 25-year-old unmarried daughters of a widowed mother did much of the work in the household's rice fields. A 57-year-old widow and her 23- and 17-year-old daughters did most of the work on their farm. Two other women with status as second wives were assisted by their husbands only after tasks on the farms of the husbands' first wives were completed.

By the 1995/96 crop season, more than 15 years after the Khmer Rouge regime, daughters and sons had grown up to a point where they could help their widowed mothers with rice cultivation. Likewise, husbands had returned from military conscription and work details in the northwestern provinces to assist their wives in the rice fields. Nevertheless, in the 1995/96 crop season, Babaong women still played a major role in the rice cultivation process.

Access to labour was somewhat dependant on the number of able-bodied members within the household, but other factors affected the household's capacity to engage in rice cultivation. One such factor was the ability of the household to hire labourers and machines to complete various cultivation tasks.

In addition to the availability of labour, ownership of draught animals was a crucial factor that affected labour use strategies. Not all family households owned their own mature oxen or water buffalo. Although some households were able to borrow draught animals without the need for reciprocity, many others had to exchange labour to secure ploughing and raking of their rice fields. Women were left to repay the often numerous days of labour owed for borrowing draught animals.

In the 1995/96 dry season, 19 of the Babaong households reviewed cultivated flood-recession rice in the village. Of this total, only five owned mature draught animals able to plough and rake. Another four borrowed draught animals from relatives or neighbours without the need for repayment. One household used one owned and one borrowed animal. However, 10 households used some exchange labour to secure ploughing and raking. (This included one household that also borrowed animals.) Without exception, the repayment of labour for ploughing and raking was done by women.

Mornings of ploughing and raking were repaid by full days of pulling seedlings and transplanting. In situations where an able-bodied man was not present in the household, both the draught animals and the owner of the animals were contracted to do the work. In situations where an able-bodied man was present, only the animals were used. (The only exception to this was a case in which labour exchange was used to secure seedbed preparation.)

Whether or not the owner worked with the animals, the repayment conditions were the same: one full day of farm labour for one morning of ploughing and raking.

Access to Affordable Credit

Only a limited number of Babaong households documented in the accounts were able to subsist throughout the entire year without borrowing rice for consumption. Most family households studied in this rice-surplus village experienced cycles of shortage, debt, repayment, shortage and debt. This meant that a portion of their harvests had to be spent on the repayment of rice consumption loans. As a consequence, shortages inevitably ensued before the end of the year and rice, or cash to buy rice, had to be borrowed, at times with interest, against the next harvest. Yearly debt cycles severely affected a household's capacity to attain rice self-sufficiency.⁶

Borrowing rice

Of the 19 households considered that produced rice in Babaong, only six (less than one-third) were able to subsist for the entire year from the 1995 to the 1996 crop season without borrowing rice for consumption needs.⁷ Nevertheless, the 13 households without sufficient rice stocks were all able to make consumption loans from relatives and neighbours without interest. There are at least two reasons for this. First, all households that borrowed rice had access to land and produced their own paddy rice. This ensured repayment at harvest time. Second, large numbers of villagers in Babaong had rice stocks which they were able to lend.

Nevertheless, there does seem to be a relation between the amount of rice a household could borrow without interest and its level of production. One household reviewed produced only one sack of paddy rice on 0.3 hectares of lowland in the 1995/96 crop season because its harvest was destroyed by rats. This household normally borrowed only a few baskets of paddy rice without interest. By comparison, households that borrowed one or more sacks of paddy rice without interest had much larger yields. One household which cultivated 2.5 hectares of lowland rice and produced 65 sacks of paddy rice in the 1995/96 crop season was able to borrow seven sacks of paddy rice without interest. The household borrowed the rice because it had sold its own stocks to repay cash loans for medical expenses.

Although households normally borrowed rice against the upcoming harvest, there were instances as well of households borrowing rice against their labour. To illustrate one arrangement: two unmarried daughters of a widowed mother worked in the rice fields of other villagers for three days to repay one basket of paddy rice that they had borrowed. The cost of a 15-kg basket of paddy rice at 300 riels per kg amounted to 4,500 riels, while wages for three days of farm labour in Babaong normally amounted to 7,500 riels. In this instance, borrowing rice against labour translated into a 40 percent reduction in the wages earned.

To illustrate another arrangement: the teenage daughter of a blind father worked for five days in the rice fields of other villagers to repay two baskets of paddy rice that the household had received. The cost of two 15-kg baskets of paddy rice at 300 riels per kg amounted to 9,000 riels, while wages for five days of farm labour in Babaong amounted to 12,500 riels. In this case, borrowing rice against labour translated into a 28 percent reduction in the wages earned. In late 1996, the teenage daughter owed a total of 90 days of farm labour to 10 village lenders. If she did not complete the work in the forthcoming crop season, she could extend it into the following season.

⁶ Murshid (1998:86) documents that 63 percent of all households surveyed in Babaong had outstanding credit, with average debts of 412,600 riels. Considered separately, 94 percent of poor households had outstanding credit, with average debts of 213,500 riels.

⁷ Murshid (1998) reveals that 31 percent of the households surveyed in Babaong were rice deficit. On average, each household in Babaong had a rice deficit of 2.3 months.

Selling rice

Despite the fact that Babaong was a rice surplus village, only seven of the 19 rice farmers studied mentioned that they had sold rice after the 1995/96 harvest. Of these, some sold rice for medical treatment. Others sold rice to purchase plots of land. One sold rice to buy farm equipment. Of the seven households that sold rice, four had taken rice consumption loans in the previous crop season without interest. The rice sales of these households did not therefore necessarily reflect a production surplus sufficient to cover all of their expenses.

Borrowing cash to buy rice and food

At least four of the Babaong households reviewed that borrowed paddy rice without interest for consumption also borrowed cash to buy milled rice or food. Three of these borrowed the cash with interest. A married couple with two children borrowed cash outside the village at the rate of 20,000 riels payable with one sack of paddy rice at the harvest (worth about 30,500 riels). A widow suffering from tuberculosis borrowed cash in the village at the rate of 15,000 riels payable with one sack of paddy rice at the harvest. A married couple with five young children borrowed at the rate of 15,000 riels payable with one sack of paddy rice at the harvest. A blind man with a wife and five children borrowed 2,000 to 3,000 riels in cash from neighbours without interest to buy food.

Borrowing cash to meet production expenses

At least eight of the 19 rice cultivating households studied in Babaong borrowed money with interest to meet production expenses. Some borrowed cash to pay for tractor rentals to plough their fields. Others borrowed to pay the wages of labourers for pulling seedlings, transplanting and harvesting. Others needed cash to buy diesel fuel for the operation of irrigation pumps. These loans were made at varying rates. Some were made at 7, 10 or 20 percent monthly interest. Others were made at the rate of 15,000 riels, 20,000 riels or 25,000 riels payable with one sack of paddy rice at the harvest (worth about 30,500 riels). Interest rates on money borrowed closer to the harvest were usually lower.

Although several rice cultivators borrowed money to meet production expenses, renters of irrigation pumps paid in paddy rice and deferred payments until the harvest. Rice farmers contracting raking with draught animals usually paid in paddy rice and deferred payments until the harvest.

Borrowing cash to meet medical expenses

Nine of the 22 Babaong family households studied borrowed money in 1995 and 1996 to meet medical expenses. Some of these loans were made with relatives without interest. One woman borrowed one chi of gold from her mother to treat her seven-year-old daughter. Another woman borrowed 100,000 riels from her sister for treatment for an artificial eye at Calmette Hospital in Phnom Penh. Another woman borrowed five chis of gold from her aunt in Phnom Penh to treat an illness that caused numbness.

Other medical loans in 1995 and 1996 were made with interest. A woman borrowed one chi of gold at 10 percent monthly interest to pay for giving birth in the Prey Veng provincial hospital. A widow borrowed cash at 10 and 20 percent monthly interest for the expenses of taking her youngest daughter to Kantha Bopha Children's Hospital in Phnom Penh and for treatment of her own tuberculosis. Another widow with tuberculosis borrowed cash at the rate of 15,000 riels payable with one sack of paddy rice at the harvest (worth 30,500 riels) for household medical expenses. A father suffering from a stroke borrowed cash under the same terms. A widow borrowed one chi of gold at 10 percent monthly interest to pay for medical treatment received by herself and her unmarried daughters. A divorced woman, now living again with her husband as a second wife, borrowed cash at the rate of 20,000 riels payable

with one sack of paddy rice at the harvest to treat her daughter, now deceased, in a hospital in Phnom Penh and a private clinic in Neak Loeang.

Borrowing cash for productive investments

A number of the households borrowed cash for productive investments in 1996. A married couple borrowed amounts ranging from 10,000 to 100,000 riels without interest from the husband's uncle in Neak Loeang and loaned some of this money to other villagers with interest. Another couple borrowed 4.5 chis of gold from relatives without interest, along with a half chi of gold with interest, towards the purchase of a rice threshing machine. A widow borrowed two chis of gold at 10 percent monthly interest to finance her trading of vegetables around the village. Another couple borrowed money with interest to purchase two mature oxen for rice cultivation. A widow borrowed 10,000 riels at 20 percent monthly interest to finance the expenses of her son who accompanied their blind neighbour to Phnom Penh in search of a job.

Lending cash to others with interest

The accounts presented in this study do not detail the activities of the better-off villagers, several of whom act as moneylenders. Nevertheless, they do record instances of households lending cash to others. A married couple borrowed cash from a relative in Neak Loeang to loan to villagers with interest. A businesswomen loaned money to others with interest from capital she had earned from trading cucumbers and selling banana fritters.

Institutional credit

In 1994, the United Nations Children's Fund (UNICEF) initiated a credit scheme in Babaong through its Women in Development (WID) programme. The village chief was one of three persons elected to manage the project. By late 1996, the project had provided three cycles of credit, and the initial principal of 1.50 million riels had increased to 1.88 million riels and then to 2.33 million riels. However, as the funds of the project increased through the three credit cycles, the number of household beneficiaries decreased from 40 to 30 and then to 20. Although the project was originally intended to benefit the poor among Babaong's 462 households, it came to benefit only a small number of better-off households who could repay the larger loans. The scheme had not seriously addressed the credit needs of the more vulnerable in the village.

The four households that had been able to borrow from the credit scheme were all part of the same family lineage: a mother, her two married daughters and her married son. This family were friends of the village chief and, except for the married son, were relatively poor. All four of these households had likewise borrowed money from the informal credit market in the past year. Three had borrowed from moneylenders with interest. One of the married daughters had borrowed from her mother without interest. When non-participants of the credit scheme were asked why they had not joined, some responded that they did not have close relations with the village chief.

In November 1996, a church-based NGO, the Mennonite Central Committee (MCC), started a fertiliser lending project in Babaong. In November 1996, just before the planting season, MCC loaned 151 50-kg sacks of UREA fertiliser to 80 households. The cost of each sack was 40,000 riels, with 4 percent interest per month. Borrowers had to repay the principal and interest no later than May 1997. The market cost of the fertiliser was 38,500 riels, excluding transportation. However, borrowing cash for a six-month period in the informal credit market cost more than 100 percent interest. Each household was permitted to borrow up to two sacks. MCC planned to continue the programme in 1997. The village chief esti-

mated that Babaong villagers could borrow at least 100 more sacks if they were available. Two households in the accounts had recently borrowed from this scheme.

Access to Adequate Health Care

Village households with members incapacitated by illness experienced particular difficulties in attaining rice self-sufficiency. The immediate consequence of ill health was to take household members out of the labour force. In Babaong, several household heads no longer worked in the rice fields due to illness. One widow still suffered from the effects of a fall from a *remorque* (motorcycle-driven cart) several years earlier. Two other widows suffered from chronic tuberculosis. A formerly active husband and father had suffered a stroke.

In a similar manner, household members temporarily disabled by illness were unable to contribute to productive activities. A young mother fell ill from the adverse effects of a birth control injection. A woman lost the sight of one eye after she was struck in the face by her husband. A man was severely beaten after his arrest on suspicion of robbery and murder. A young businesswoman curtailed her activities after becoming seriously ill with a gaseous illness that caused numbness. A mother fell from a *remorque* in a manner similar to that of her own widowed mother and spent one month in hospital. An unmarried daughter responsible for the household's rice cultivation was given nine injections for her illness. A father of five children responsible for ploughing and raking had suffered from cholera. A widow stopped her vegetable trading due to illness.

The productive activities of households were also affected by the ill health and disabilities of younger members. A teenage son had permanently injured his leg in a fall from a tree. A young man with a deformed leg was unable to plough and rake. A teenage daughter died after treatment in Phnom Penh and Neak Loeng was ineffective. Several daughters and sons suffered serious illnesses that required substantial medical payments by their households.

To pay for the rather expensive though not necessarily effective health care they received, households sold disposable assets such as rice stocks and productive assets such as rice land. They also borrowed cash against forthcoming rice crops and future earnings from on-farm and off-farm labour. As well as selling land and borrowing cash to pay for medical treatment, households sold assets other than property and spent wage earnings to pay for health costs. To illustrate:

- A widow with tuberculosis who had sold two plots of rice land also sold four small cows. She likewise sold seven chis of gold that her daughter had saved from her work as a farm labourer.
- A woman with a gaseous illness that caused numbness spent 10 chis of gold on treatment. She spent five chis from her savings and borrowed another five without interest from her aunt.
- Another widow with tuberculosis had spent from 300,000 to 400,000 riels a year in medical payments over the past four years. In 1996, she sold a portion of her house lot and one cow. She also sold a large portion of her rice yield to repay loans bearing 10 percent monthly interest. In late 1996, she spent a total of 135,000 riels to treat the illnesses of two daughters.
- After the 1995/96 crop season, a man with a stroke spent 30 sacks of his total paddy yield of 65 sacks to repay loans bearing more than 100 percent interest for the treatment of his illness. Prior to this, his household had borrowed 450,000 riels (the equivalent of about 10 chis of gold) for medical expenses. With interest on the loans included, the household had repaid twice this amount.
- One woman spent 12 sacks of paddy rice from her 1995/96 yield to repay loans she had borrowed the previous year to treat the illness of her now deceased 16-year-old daughter.

2) Access to Resources and Services in Trapeang Prei

In the Kompong Speu village of Trapeang Prei, conditions were somewhat different than in Babaong. Yield productivity and access to land were low, and most households in the families studied cultivated wet season rice as an important, though not as a major, source of subsistence. Nevertheless, access to resources and services were important factors in attaining livelihood security.

Access to Land

Of the nine households in the Trapeang Prei accounts, seven had rights to less than 0.5 hectare of rain-fed rice land. The other two had rights to 1.0 and 1.2 hectares of rain-fed rice respectively.⁸ Both of these latter households had purchased part of their landholdings with savings from palm sugar production.

Two of the seven households with less than 0.5 hectares of rice land had sold parcels of land. A young mother now cultivated only a small portion of her house lot with rain-fed rice because her mother had sold a parcel of the family's rice land some years earlier. A divorced mother had sold 0.3 hectares of rain-fed rice land in the mid-1980s for 1.5 chis of gold to buy food for her children and to pay for the medical expenses of her mother. Although she still retained a small plot of rice land, she did not cultivate it due to its low yield. As a result of their diminished land rights, these two households were even more dependent than others on wage labour.

Access to Labour and Draught Animals

In Trapeang Prei, eight of the nine households reviewed cultivated some rain-fed rice in the 1995 wet rice season, though one of these households cultivated only a small portion of a house lot. In the latter case, a relative ploughed and raked without cost. All seven of the other family households practised some form of mutual exchange labour in rice cultivation which made access to labour, and in some cases access to draught animals, more attainable.

In one family studied, the households of three married daughters and that of their parents exchanged labour in rice cultivation tasks without a strict accounting of the work done. Only two of these four households owned draught animals, but the work shared among the households included ploughing and raking, so the need for oxen was minimised. The labour exchange among the four households was most pronounced in pulling seedlings and transplanting, and was restricted to their own households.

In this same family, the household of an aunt and uncle ploughed and raked using its own oxen. This household also exchanged labour with a group of relatives in rice cultivation tasks without requiring exact measures of exchange as to the work done. The only exception was when this household ploughed for one of the relatives, it required one full day of transplanting for one morning of ploughing.

In another family, the households of a widowed mother and her married daughter cultivated their farms together. Since neither had draught animals of their own, they each hired a neighbour to plough their rice fields for them. The two households exchanged labour in other cultivation tasks but restricted the exchange to themselves. Since more work was demanded on the larger farm of the mother, a share of the harvest on this farm was given to the married daughter and her husband.

⁸ Murshid (1998:29-30) records that Trapeang Prei households on average owned 0.81 hectares of land. Considered separately, female-headed households on average owned only 0.36 hectares of land.

Access to Affordable Credit

Due to their circumscribed land rights⁹ and the relatively low yields obtained on the drought-prone rice lands of Trapeang Prei, none of the nine households reviewed produced rice sufficient to last them through the entire crop year.¹⁰ In fact some households, after paying rice consumption loans from the previous season, were able to subsist only for a couple of months on the rice that they had produced. All of the households reviewed had to earn from other sources to buy or barter paddy or milled rice.

Borrowing rice

When Trapeang Prei households did not have rice stocks or money to buy rice they tended to borrow rice from traders in Bat Doeng market 3 km away. Only in three instances were households able to borrow rice without interest from relatives and better-off neighbours. Two were able to borrow baskets of rice without interest from relatives in other communes. One of these households was also able to borrow rice without interest from the village chief, who was a relative. A poorer household borrowed baskets of paddy rice from the village chief without interest, though with the intention to repay the loan with an extra basket at the harvest. All three of these households borrowed rice with interest from rice traders within the two-year period of 1995–96.

For the most part, the households studied borrowed rice with interest from rice traders in Bat Doeng market. Married children did not borrow from their parents, nor from their brothers and sisters. A common refrain was that household members were unable to borrow from or lend to relatives since they themselves were poor. The village was located in a rice deficit area and there was not a wealth of rice that could be loaned out, particularly without interest.

When villagers borrowed from traders in Bat Doeng market, they borrowed baskets of paddy rice to be repaid at the harvest with interest. Interest rates varied from 40 to 100 percent and depended on the length of time to the harvest. One household borrowed five baskets of paddy rice and repaid seven at the harvest. Another borrowed 12 baskets and repaid 20. A third borrowed 10 baskets and repaid 20.

Borrowing for palm sugar production

In years prior to 1996, one palm sugar producer normally borrowed 30,000 riels in September or October from relatives in another village to help finance his household's palm sugar production. In March or April, the household repaid the loan with 100 kg of sugar worth 50,000 riels. In the last production season, the household borrowed instead from the village credit project (see below).

The expenses incurred in palm sugar production were mainly for dug-up tree stumps for firewood, bamboo poles for making steps and bamboo containers. These materials could be purchased on credit and paid for during the production period.

⁹ As early as 1981, the villagers had established rights to work land that had been in their families before the collective farming of the Khmer Rouge period. Nevertheless, for two years from 1981 to 1983, the villagers cultivated these lands collectively. All households in the village were divided into *krom* (groups), and within each *krom*, land was cultivated collectively and total harvests were divided among households based on the number of household members and the nature of their participation in the labour force. From 1983 to 1987, villagers continued to cultivate their lands through exchange labour, though each household kept the harvest from its own land. Government authorities did not object to this as long as villagers helped each other to farm and shared their draught animals with each other. From 1985, as the population increased, villagers began to clear new land for cultivation. By 1990, there was no more land in the village that could be cleared for rice production.

¹⁰ Murshid (1998) highlights the fact that 85 percent of the households interviewed in Trapeang Prei were rice deficit. On average, each household in Trapeang Prei had a rice deficit of 5.4 months.

Institutional credit

In 1996, the international NGO Group de Recherche et d'Echanges Technologiques (GRET) introduced a credit project in Trapeang Prei to enable villagers to undertake productive enterprises such as raising pigs and poultry, and to provide capital for income generating activities such as palm sugar production. The NGO representatives introduced the project through the village chief, who was later selected by the participants to manage the scheme. A GRET staff member came to the village each month to collect the money being repaid for safekeeping in the GRET office in Phnom Toch commune. The project for Trapeang Prei also included the smaller village of Trapeang Kanseng.

The first loan cycle started on 29 January 1996 and was completed eight months later on 28 September 1996. Each household was able to borrow up to 60,000 riels at a monthly interest rate of 4 percent. The payment of the interest had to be made each month. The payment of the principal had to be made before the end of the cycle. The total amount borrowed in the first cycle was 2.54 million riels. Forty of the 67 households in Trapeang Prei participated in the scheme. Members were divided into groups of five households responsible for helping each other meet the conditions of the loan.

The second loan cycle started on 30 September 1996 and was to be completed eight months later on 29 May 1997. This time each household was able to borrow up to 100,000 riels under the same repayment terms as the first cycle. The total amount borrowed in the second cycle was 7.98 million riels. Sixty-one of the 64 households in Trapeang Prei participated.¹¹ More people borrowed in the second cycle because they understood how the scheme worked and saw how it had benefited their neighbours.

In Trapeang Prei, eight of the nine households studied took advantage of the village credit scheme. The only household that did not was that of a young mother, virtually deserted by her husband, who was temporarily living with her parents. She was afraid that if she borrowed from the scheme she would not be able to repay the loan.

Several of the households that borrowed from the village credit scheme used the money to buy rice. Others used the money to finance productive ventures such as palm sugar processing or small-scale trade. They repaid the principal of their loans in various ways. Some sold palm sugar. Other households sold pigs. Others used household wage earnings to repay their loans. Others had yet to repay loans borrowed in the second cycle.

All eight of the nine households studied that borrowed money from the village credit scheme continued to borrow rice from traders at high interest rates. The fact that some households spent money from the credit project on rice purchases indicated that their dependence on traders was now reduced. The GRET project had eased the burden of credit on the poor, though the scheme's contribution to productive investment and its long-term sustainability were still to be determined.

Access to Adequate Health Care

Access to health services in Trapeang Prei was difficult, though for many of the households interviewed it was not an immediate problem. Women normally went to Bat Doeng market to buy medicines prescribed by the owners of small pharmacies. Among the households reviewed, one widow spent 160,000 riels to treat her 18-year-old daughter. She sold her gold earrings—assets she had saved for a long time—to pay the medical expenses.

¹¹ Murshid (1998:86) reveals that 92 percent of all households in Trapeang Prei had outstanding credit, with average debts of 140,100 riels. Considered separately, 90 percent of poor households had outstanding credit with average debts of 141,800 riels.

Chapter Two

The Diversity of Livelihood Pursuits

In Babaong, rice production was the major source of subsistence for most of the households reviewed. Nevertheless, even in this rice-surplus village some family households earned primarily from fishing, trading and wage labour rather than from rice production. All of the households interviewed supplemented their earnings in rice production through other pursuits.¹ In large measure, the burden of household subsistence was shared by the entire family. Households survived on a diversity of strategies and a flexible, though somewhat gender-segmented, division of labour among household members. Individual household members engaged in a number of productive activities throughout the year.

Although rice yields were rather high in Babaong, the inherent inability of the flood-recession rice regime to produce more than one yearly crop precluded increased productivity through double cropping. As villagers reached the limits of land availability and rice productivity, they turned to other activities to sustain their livelihoods. Some households without access to land or adequate labour earned primarily from activities other than rice cultivation. But for most of the households studied, non-cultivation activities were secondary pursuits.

In Trapeang Prei, the situation was different. Most households studied cultivated rice as an important, though not as a major, source of livelihood. These households relied principally on income from palm sugar processing and wages from migrant labour. They supplemented their earnings in these pursuits and in rice production through several on-farm activities and food gathering.² Clearly, the ecological conditions prevailing in the two villages influenced the type of livelihood strategies pursued.

1) Livelihood Pursuits in Babaong

Rice Cultivation

In Babaong, only three of the 22 households included in the research did not cultivate rice in the village. A married couple had lost their rice lands through drinking and gambling. Another married couple from the same family had sold a plot of rice land in Babaong, though they still cultivated a small parcel of wet season rice land in another village. A young divorced woman actively pursued business enterprises and allowed relatives to cultivate her

¹ Murshid (1998:26) reports income share by source in Babaong to be: agriculture (42.4 percent); non-agriculture (15.2 percent); gathering (13.0 percent); home gardening (9.4 percent); and labour earnings (19.7 percent).

² Murshid (1998:26) records income sources in Trapeang Prei as follows: agriculture (12.5 percent); non-agriculture (45.4 percent); gathering (10.1 percent); home gardening (3.3 percent); and labour earnings (28.7 percent).

rice lands without giving her a share of the harvest. Among the 19 households that did cultivate rice in the last crop season, production yields ranged from a low of one sack of paddy rice to a high of 79 sacks.³ This indicates that not all rice cultivators were able to rely on their yields for subsistence and security in identical ways.

Fishing

Sixteen out of 22 households reviewed in Babaong did some fishing in the village. Five of these fished primarily to earn income. The other 11 fished to supplement their food consumption. Most households fished in the upper reaches of the Mekong River with nets and traps. A few used their own or borrowed boats. Some households fished in the village paddy fields. Husbands and sons normally fished in the river, while wives and daughters (as well as one young blind husband) usually fished in the rice paddies. Of the five households that regularly sold fish to earn income, all but one earned principally from rice cultivation.

Among the five households reviewed who fished for earnings, one household had bought a boat in 1996 from a Vietnamese resident of the commune for 150,000 riels. The husband fished and his wife sold his catch in Babaong to traders and villagers. In peak months, they earned 3,000 riels per day from fish sales.

Another Babaong fisherman caught fish during the wet season with a dug-out palm-tree boat and net, and at times earned up to 6,000 riels per day. The husband caught the fish and his wife sold the catch at the canal to traders from nearby villages. Another villager fished with a net and sold small amounts of fish (up to 1 kg) at 1,500 to 2,000 riels per kg. His wife made *prahoc* (fish paste) with his catch.

One villager had fished regularly during the rainy season before his nets and boat, worth about 108,000 riels, were stolen late one evening. His teenage son then began to fish with traps and a hook and line. At times he sold 1 or 2 kg of fish to buy milled rice. Another teenage son had recently done more fishing than his father with the household net and traps. During the flood of September 1996, he had earned about 60,000 riels.

Fishing in the river waters around Babaong was not without difficulties. Every year the rights to the principal fishing grounds were leased to a bidder who policed the area with armed guards. In recent years, the zone had been leased to a businessman from Kompong Cham province who enforced strict compliance with the agreement he had with the government. In 1995, the fisherman who had bought a boat from a Vietnamese person in the commune was arrested for fishing illegally inside the zone and was forced to pay a fine.

Off-Farm Work

Aside from rice cultivation and fishing, a majority of the households reviewed engaged in some form of off-farm work. In most cases this work was done in the village. There were sufficient opportunities in the rice and labour markets of Babaong to allow workers to earn money close to home. The exceptions were a husband and father who worked at times as a carpenter in Neak Loelang; a blind man who begged with his young daughter in the markets

³ At the Rural Food Security conference from 7–8 October 1997, it was reported that rice-cultivating households in Babaong produced on average 5,647 kg (56.5 sacks) of paddy rice in the last full crop season. Differences in average production by class were noticeable. Murshid (1998:12–13) devised a ranking system of households by class based on five variables: land ownership, adjusted for productivity; ownership of transport, machinery and consumer durables; animal assets; housing conditions; and family labour (above 16 years of age) to dependants (children and the elderly). On the basis of this ranking system, poor households in Babaong produced 11.3 sacks of paddy rice in the last crop season; marginal (negative) households produced 18.1 sacks; marginal (positive) households produced 43.5 sacks; well-off households produced 63.5 sacks; and rich households produced 87.6 sacks.

of Phnom Penh; a rain-fed rice farmer who sometimes worked as a cyclo driver in Phnom Penh; and a single daughter who worked as a construction worker in Thailand with her married sister.

Several household members dug and carried soil to build earthworks at the village wats or to repair dykes in the rice fields of other villagers. They were usually paid at rates from 2,000 to 3,000 riels per cubic metre, depending on the distance the earth was moved. In 1996, one man earned 170,000 riels carrying soil at one of the village wats. Another man reportedly earned up to 300,000 riels from this work in the dry season. Most of this work was done by men, but one married couple who had lost their rice land to gambling debts worked together as a team digging and carrying soil.

In 1996, some villagers worked on the construction of the village primary schools financed by the World Bank-endowed Social Fund. They earned at the rate of 5,000 riels per day without meals. One experienced carpenter and supervisor earned 7,000 to 10,000 riels per day. In 1996, one worker had received 123,000 riels from this work and was owed 137,000 riels more. Another labourer had received 80,000 riels and was to receive 50,000 riels more. Neither of these workers had travelled out of Babaong to do construction work.

One household member acted as an agent in the village for buyers of water buffalo. After the harvest, he went around the village and identified villagers who wanted to sell their animals. A large buffalo sold for about 500,000 riels. The agent received a commission of between 5,000 and 10,000 riels for every pair of water buffalo sold.

Rather than cultivate her own rice fields, a young divorced mother earned money from trading cucumbers and selling banana fritters. She used this capital to lend cash to rice cultivators with interest. In 1996, she received 20 sacks of paddy rice as repayment for loans due at the harvest. In late 1996, she opened a small vegetable stand stocked with goods bought at Neak Loeng.

Several household members in Babaong engaged in small-scale trading and vending enterprises. In the 1995 wet season, an unmarried daughter earned 2,000 riels per day from the sale of chicken rice porridge. In 1995 and 1996, her widowed mother bought and sold vegetables in Babaong and earned a few cans of milled rice and a few hundred riels per day.⁴ Another woman traded sour cucumber for cans of milled rice and sold shrimps from Babaong in Neak Loeng for earnings of up to 4,000 riels per day. One village woman sold or bartered noodle soup with her teenage daughter in Babaong. Her brother made palm juice from a tree on his house lot and his young children sold it around the village. The widowed mother of this sister and brother made coconut rice cakes and sold them in Babaong for a daily profit of between 600 and 1,000 riels.

Farm Labour in Rice Cultivation

Members of half of the 22 households reviewed had hired out their labour in rice cultivation. In all instances, earnings from farm labour were a supplementary source of income for these rice-cultivating households. In large part it was the female members of the household, either unmarried daughters or wives, who engaged in this work. The exceptions were a husband hired to plough and a handicapped son hired to transplant and harvest.

Although most farm workers hired out their labour to rice cultivators in the village, two daughters from one household transplanted for half a month in another village. They stayed at the homes of rice cultivators who themselves had come to work as labourers in the rice fields of Babaong. In the 1995/96 crop season, daily rates for pulling seedlings, transplanting,

⁴ Recycled condensed milk cans were used as a semi-standard measure in the village, with four cans equal to about 1 kg of milled rice.

and harvesting in Babaong were 2,000 to 2,500 riels per day. Local residents were provided with two meals and migrant workers with three meals.

Other On-Farm Pursuits

Several of the households reviewed grew coconut trees and either sold the nuts or kept them for home consumption. Some grew palm trees. Others cultivated vegetables, and less often gathered wild vegetables. Some raised livestock and poultry. A few raised cows under *provas* agreements. Under this reciprocal exchange, a household took care of a cow owned by another and, in return, received the cow's first and every other offspring. Usually, young teenage children, both sons and daughters, looked after the household's livestock. Many women made *prahoc* for household consumption. Household members, usually teenage children, gathered firewood for household use.

2) Livelihood Pursuits in Trapeang Prei

Rice Cultivation

In Trapeang Prei, eight of the nine households reviewed cultivated at least some wet season rice in 1995. For one household, only a small portion of a house lot was cultivated. In the drought-prone lands of Trapeang Prei, yields were low and the rice market undeveloped. Cultivators were dependent on rain and were unable to plant more than one crop per year. Without large-scale and expensive irrigation, the situation was unlikely to change. Nonetheless, village households cultivated rice as a subsistence crop that was an important contribution to their livelihoods.⁵ The lack of other more productive pursuits in the village kept many households engaged in rice cultivation.

Palm Sugar Processing

Palm sugar processing was a major source of livelihood for three of the nine households studied. In Trapeang Prei, villagers started to process palm sugar at the end of the wet season rice harvest in December and continued until May, with peak months in February and March. Husbands and older sons climbed the trees and extracted the juice. Wives and daughters boiled and stirred the juice over large pans to produce the sugar. In recent years, producers had travelled further and further from the village to obtain firewood. Some palm trees were owned by the households, others were rented. Chinese-Khmer traders from Bat Doeng market came to the village to buy the sugar.

In 1996, the price of palm sugar was 400 to 500 riels per kg in season and 600 to 700 riels per kg later in the year. From total sales, producers paid expenses for firewood to process the sugar, bamboo containers to carry the extracted juice, and bamboo steps to climb the trees. In 1996, one of the household producers processed 1,200 kg of palm sugar from 30 trees. This household obtained gross earnings of about 645,000 riels, and net earnings of 416,000 riels. The other two households processed palm sugar from 22 and 20 trees respectively, and earned less. In all three cases, producers leased more trees than they owned.

⁵ At the Rural Food Security conference from 7–8 October 1997, it was reported that rice-cultivating households in Trapeang Prei produced on average 1,037 kg (10.4 sacks) of paddy rice in the last full crop season. Differences in average production by class were evident. Poor households produced 6.4 sacks in the last crop season; marginal (negative) households produced 7.9 sacks; marginal (positive) households produced 9.9 sacks; well-off households produced 13.7 sacks; and rich households produced 23.1 sacks.

Farm Labour in Rice Cultivation

Four of the nine households reviewed in Trapeang Prei earned a major source of their income from hiring out their labour in rice cultivation. Almost all household members who did this were women. The exception was a teenage son. Normally, farm labourers were paid by piece rate calculated in the number of *plon* (40 bunches) of rice plants pulled, transplanted or harvested. Piece-rate payment underscored the low profit margin of the wet season rice regime. Some farm labourers travelled to distant villages in search of work.

One married woman who earned substantially from farm labour had two young children and worked only in Trapeang Prei for better-off villagers. In the 1995 wet season, she earned about 156,000 riels from pulling seedlings, transplanting and harvesting.

Another married woman with three young children worked as a farm labourer only in Trapeang Prei and in nearby villages so that she could return home at lunch to breastfeed her youngest child. In the 1995 wet season, she earned 20,000 riels from pulling seedlings and transplanting, and 20,000 riels from harvesting.

A divorced woman along with her 17-year-old daughter and 16-year-old son worked for wages in the rice fields of Trapeang Prei. The three travelled as well to work as farm labourers in villages in Odong and Samraong Tong districts of Kompong Speu, and Ang Snuol district of Kandal. As migrant workers in other villages, they were provided with accommodation and three meals per day. In 1995 and the first half of 1996, the woman and her teenage children earned a total of 470,000 riels from work as farm labourers. Of this amount, 360,000 riels (77 percent) was earned outside Trapeang Prei.

A widow and her two daughters, one aged 18 and the other aged 16, earned a major portion of their subsistence as farm labourers. The mother and daughters worked in the rice fields of Trapeang Prei for better-off villagers. They also journeyed to distant villages with other labourers from Trapeang Prei. In 1995 and early 1996, they had travelled to various communes in Ang Snuol and Mukh Kampul districts of Kandal. In the wet crop season of 1995 and the dry crop season of 1995/96, 95 percent of their total earnings of 334,100 riels was earned outside Trapeang Prei.

Off-Farm Migrant Labour

All nine of the Trapeang Prei family households reviewed in the accounts earned some money from off-farm migrant work in 1996. For some households it was a major source of income. The importance of migrant work for these households underscored the lack of earning opportunities in the village. It also highlighted the opportunities in construction work generated by development in and around Phnom Penh at that time, and the ability of village residents to take advantage of these jobs. Villagers usually learned about opportunities from each other, and often travelled together in search of work.

In 1996, an unmarried son of one large household had carried soil to build fish ponds in Ponhea Leu district in Kandal, and had earned from 3,000 to 4,000 riels per day. His brother-in-law had earned 5,000 riels per day from construction work in Kandal province. Another brother-in-law had left his wife and child to work as a security guard in another district of Kompong Speu. He had returned to the village only once and had not given his wife a share of his earnings. A third brother-in-law had earned 5,000 riels per day from construction work in Phnom Penh.

A palm sugar producer had, at the end of the season, travelled to Kandal to dig and carry soil for the construction of fish ponds. He had stayed for two weeks and had earned a net total of 55,000 riels. A landless couple had worked together outside the village carrying soil to build earthworks. By the end of the dry season, they had earned a total of 100,000 riels.

A widow and her two teenage daughters had gone to Kandal province with other Trapeang Prei villagers to build earthworks. The mother, too old and weak to dig and carry soil herself, had cooked and looked after her daughters, who had earned about 50,000 riels in half a month of work. A son-in-law of this widow had travelled to Mukh Kampul district to build fish ponds and to upgrade house lots. Depending on the availability of the work, he had stayed up to one month at a time and had earned from 70,000 to 100,000 riels each time.

A divorced woman and her two teenage children had travelled to Mukh Kampul district to dig and carry soil for the upgrading of house lots. They had worked for about two months and had earned 100,000 riels.

Other Livelihood Pursuits

In Trapeang Prei, several of the households reviewed raised livestock and poultry. One household cared for a cow under a *provas* agreement. Some households cultivated vegetables on or near their house lots. Others gathered wild plants such as morning glory and water lily stalks. One woman gathered wild candle potatoes and exchanged them for paddy rice. This woman likewise sold the fruit of tamarind trees or exchanged them for milled rice. One elderly woman and her daughter stitched and sold thatch from palm leaves. Villagers likewise caught frogs, fish, crabs and snails mostly for household consumption. Household members also gathered firewood for their own use.

Chapter Three

Effects of the Market Economy

Although it is difficult to correlate specific changes at the village level directly with Cambodia's transition to a market economy, some broad trends were discernible, particularly in terms of rice production.

1) Rice Production in Babaong

In Babaong, the opening up of the Cambodian economy had stimulated cash flows and market activities, and the commercialisation of rice production was almost complete. With the introduction of irrigation pumps, high-yielding varieties and the use of fertiliser, rice yields increased in the already productive flood-recession rice regime of the village. Rice surpluses were easily marketed in the important trading crossroads of Neak Loeng 17 km away. Capital expenditure as a means to raise productivity had become more important in the rice production process, and the use of hired labour and powered machinery had increased.

New Rice Technology

Every year, the receding flood waters of the Mekong River replenish the nutrients in the rice fields of Babaong and contribute significantly to the overall productivity of the rice regime. In 1986, dry season rice cultivators in Babaong used traditional varieties of seed and relied mainly on *rohat* (pedal-operated pumps) to irrigate their fields. The *rohat* was used for about three months at the end of the dry season to maintain sufficient water levels in the paddies and to ensure maximum yields. In 1986, there were 234 *rohat* in the village. In 1985, the highland areas in Babaong produced an average yield of 0.7 tons of paddy rice per hectare and the lowland areas an average yield of 1.5 tons per paddy per hectare.¹

Although *rohat* were able to transfer water into fields at the same level as the water source, they were unable to irrigate lands on higher ground. Irrigation pumps were critical for fields in higher areas and during years without sufficient rainfall. In the years before the Khmer Rouge regime, several irrigation pumps were in use in the village. In late 1986, under the *krom samaki* system, eight irrigation pumps were in operation in Babaong and five more had recently been received. Even with traditional seed varieties, the regular use of pumps by some *krom* members had almost doubled their rice yields.

High-yielding rice varieties were introduced to Babaong in 1989. By 1996, most villagers cultivated IR42 or IR66. With the use of irrigation pumps and fertiliser, village households could obtain yearly harvests on lowland parcels of between three and four tons of paddy rice

¹ See Boua & Kiernan (1987:5, 17, 19).

per hectare, sometimes even higher. By 1996, there were 115 irrigation pumps in use in the village. Those households that did not own pumps could hire them from others. By 1996, the use of the *rohat* had virtually disappeared.

Nevertheless, rice production in Babaong was at times adversely affected by drought on the highlands and by rats on the lowlands. The productivity of individual parcels was influenced by their access to irrigation, with lower land close to the water source being more productive than higher land.

Household Rice Production in the 1995/96 Dry Season

In the 1995/96 crop season, rice farmers in the Babaong households obtained relatively high yields on their lowlands. Of the 18 households with complete data, 15 produced three or more tons of paddy rice per hectare, and five of these households produced four tons of paddy rice per hectare.² The lowest yield per hectare among the 18 farmers was that of a blind man's household, which produced 2.5 tons per hectare on 0.4 hectares. The highest yield was obtained by a farmer who ploughed his fields with a tractor, operated his own irrigation pump, and used three sacks of fertiliser and one litre of pesticide. He produced 4.7 tons per hectare on 1.5 hectares of lowland.

Hired labour

Household and exchange labour remained an important part of rice cultivation in the village, but the increased use of hired labour underlined the commercialisation of village rice production. Almost all of the households hired labour on their lowlands for transplanting and harvesting, and some hired labour for pulling seedlings. The reliance on hired labour highlighted the availability of farm labour from neighbouring villages and the productivity of the rice crop to pay for it.

Of the 19 households that cultivated lowland rice in Babaong in 1995/96, 15 hired labour for transplanting, 17 hired labour for harvesting, and four hired labourers to help with pulling seedlings. Three households hired men and tractors to plough, and two hired men with draught animals to rake. Household labourers normally worked alongside hired labourers pulling seedlings, transplanting and harvesting. Exchange labour was also combined with household and hired labour. Although the use of hired labour had increased, it had by no means replaced entirely the use of household and exchange labour.

Timing transplanting was critical because water could dry up in the paddy fields. Transplanting was also labour intensive. In Babaong, labourers were hired to complete the transplanting quickly and uniformly. Most workers hired for transplanting were women from nearby villages in Prey Veng. Some of them had flood-recession rice farms of their own on higher ground. Others cultivated wet season rain-fed rice farms. Varying seasonal patterns permitted rice farmers to work as hired labourers in the lowlands of Babaong in less intensive periods. Timing the harvest in Babaong was also critical in order to prevent the crop from being destroyed by rats.

Hired labour was used extensively by households on lowland parcels, but it was rarely used on highland plots. The highland areas were dependent on rainfall and were often unproductive. Although households were willing to expend their own labour on the cultivation of highland plots, they were by and large unwilling to expend their cash on unpredictable yields. (The reluctance of Babaong villagers to make cash inputs on their unproductive highlands was similar to the unwillingness of Trapeang Prei villagers to spend cash on their unproductive lowlands.)

² Murshid (1998:33) reports that rice-cultivating households surveyed in Prey Veng produced on average 3.7 tons of paddy rice per hectare.

Power machinery

All 19 rice-cultivating households used fuel-operated pumps to irrigate their lowlands. No-one used a *rohat* on their own farms as they had in the past. Of the 19 households, only six owned their own pumps. Another three borrowed pumps, and 10 households rented pumps. All households, whether they owned, borrowed, or rented irrigation pumps, had to pay for the fuel used.

Almost all of the households hired mechanical threshers to thresh their lowland crops. A few threshed their entire crop by hand. Others threshed only a portion of their crop by hand. Threshing by hand on highland plots was a common practice.

Once the paddy rice was threshed, the farmers usually transported it home by oxcart. Some paid to transport it home by tractor.

The use of irrigation and threshing machines increased production costs, particularly for renters, and made farmers dependent on imported fuel, but it also contributed to greater productivity and labour savings. In the 1995/96 crop season, the use of these machines in rice cultivation was almost complete. By contrast, conventional methods of ploughing and raking with draught animals persisted. Market forces and subsistence practices were both at work and, for the moment, largely complemented one another.

Contractual Regime for Hired Labour

In the 1995/96 crop season in Babaong, almost all hired labour was paid on a daily basis. In only two instances were farm labourers hired for piece work. This points to the relatively high profit margin of rice production in the village. It also underscores the competitive need for labourers. Rice farmers were not compelled, or perhaps were not able to enforce, stricter contractual arrangements.

In the 1995/96 crop season, labourers hired for pulling seedlings, transplanting and harvesting were normally paid at rates of 2,000 to 2,500 riels per day. The more competitive rate was paid in peak periods when labourers were in greater demand. Farm labourers from the village were usually provided with two meals. Farm labourers from outside the village were usually provided with three meals and overnight accommodation.

Contractual Regime for Hiring Machines

In the 1995/96 crop season, rental of an irrigation pump was calculated by the number of litres of diesel used. For every litre of fuel used the rental cost was one 12-kg basket of paddy rice. The fee was negotiable, especially if 10 or more litres of fuel were used. There was, however, at least one instance where a rice farmer paid the full price. Irrigation fees could be paid at the harvest. In addition to the rental fee, users had to pay the actual cost of the fuel.

In the 1995/96 season, the fee for a mechanical thresher was one basket of paddy rice for every 30 baskets threshed. Unlike irrigation fees, compliance with this rate was strictly enforced and was not subject to negotiation. Babaong villagers owned only five threshing machines, but 115 irrigation pumps. It was more difficult to negotiate the price of power machinery rentals with outsiders than with neighbours and friends, but at the same time the trend towards commercialisation probably meant that rental fees for irrigation pumps would be less negotiable in the future.

2) Rice Production in Trapeang Prei

The commercialisation of rice production in Babaong stood in stark contrast to the traditional cultivation practised in Trapeang Prei. The rain-fed rice lands of the latter village were drought-prone and relatively unproductive. Most fields were too far from water sources to be

irrigated. Rice farmers used traditional seed varieties and few applied fertiliser. In the family households examined, no machinery and little hired labour was used in the cultivation process. By relying primarily on household and exchange labour, the family households minimised their cash outputs and, in effect, agreed to underpay their own and each other's labour in the event of low yields. Under the difficult circumstances, this strategy made good sense. It was unlikely to change unless large-scale irrigation and reliable yields became possible.

In the mid-1980s, villagers experimented with the use of high-yielding rice varieties. IR36 was used for three years but then stopped. Villagers said that the hybrid seeds were easily affected by drought and needed more fertiliser. In recent years during serious drought, rice farmers with fields close to ponds hired irrigation pumps from Bat Doeng to pump water into their paddies. Only about 20 percent of villagers could do this. There were no *rohat* in the village; people used buckets with ropes to irrigate and drain their rice plots.

Household Rice Production in the 1995 Wet Season

In the 1995 wet crop season, the seven rice cultivating households reviewed in Trapeang Prei used traditional rather than high-yielding varieties of seed. Only one household used fertiliser. In that season, the relatively low productivity of the rain-fed regime was evident from household rice yields.³ Of the seven households, five obtained yields of between 1.1 tons and 1.7 tons of paddy rice per hectare.⁴

In the 1995 wet season, the seven households cultivated their rice lands largely with household and exchange labour. Little hired labour was used. Only one household hired labour to transplant and that was for a parcel in another village. Two households without draught animals hired labour to plough their fields and to transport their harvests home. Except in these instances, no other hired labour was used. All threshing was done by hand. No irrigation pumps were used.

Contractual Regime for Hired Farm Labour

In Trapeang Prei, farm labour was contracted by piece work based on the number of *plons* (40 bunches) of rice pulled, transplanted or harvested. In the 1995 and 1996 crop seasons, the rate inside the village for pulling seedlings varied from 1,000 to 1,200 riels per *plon*; the rate for transplanting from 1,100 to 1,300 riels per *plon*; and the rate for harvesting from 200 to 300 riels per *plon*. The tighter contractual regime enforced by farmers indicated the low profit margin of rice production in Trapeang Prei.

³ Rice production in Trapeang Prei is usually measured in *thang*. One *thang* equals two baskets, but the amount of kilograms said to comprise one *thang* ranges from 24 to 30 kg, and the amount of kilograms in one basket from 12 to 15 kg. For the sake of consistency, this study uses 28 kg to one *thang* and 14 kg to one basket.

⁴ Murshid (1998:33) reports that rice-cultivating households in Trapeang Prei produced on average 1.9 tons of paddy rice per hectare.

Chapter Four

Mutual Assistance

The nature of mutual assistance in rural Cambodia continues to be a topic of considerable debate. Some observers argue that social cohesion and solidarity are returning to village life after the trauma of the Khmer Rouge period. Others argue that strong social organisation never existed in the first place. A useful way to shed light on this issue is to empirically examine the extent and circumstances of mutual assistance practised in rural communities.

The accounts reviewed for both Babaong and Trapeang Prei contain ample evidence that active mutual assistance relations prevail among households within the same family lineage. These households engaged in labour exchange in rice cultivation and did not always exact a strict accounting of work done. Households in the same family sometimes borrowed rice from one another and from other relatives without interest until the next harvest. Some even borrowed cash without interest from close relatives.

Importantly, sons and daughters provided for the subsistence and security of parents through gifts such as land use, labour, rice and fish. Parents likewise provided for the livelihood of married children in situations of dire need. Brothers and sisters also helped one another. In some instances, the exchange relationships within families were multi-stranded and diffuse, reflecting the changing needs and resources of each.

Mutual assistance went beyond kinship groups. Family households in both communities exchanged labour with neighbours and friends and even borrowed rice without interest until the next harvest. (Borrowing rice without interest from non-family members was, however, much more common in Babaong than in Trapeang Prei.) Neighbours and friends also helped to build houses for one another, acted as caretakers of each other's cows, and informed each other of opportunities in migrant labour.

These incidences of mutual assistance do not necessarily mean that conditions of strong social cohesion and solidarity prevailed in the villages. Relationships of reciprocity were circumscribed by a household's capacity to make exchanges, and poorer households with limited resources were decidedly disadvantaged. Contractual regimes were also in transition, with the monetarisation of the economy encouraging a shift to more discrete and fixed institutional arrangements between parties. This trend eroded the ability of the poor and the vulnerable to make moral claims on livelihood subsistence and security.

1) Mutual Assistance in Babaong

Contractual Exchange Labour in Rice Cultivation

In the 1995/96 dry season, 19 Babaong households cultivated flood-recession rice in the village. Ten of these households exchanged some labour to secure ploughing and raking.

Mornings of ploughing and raking were repaid with full days of pulling seedlings and transplanting. In all instances, the repayment of exchange labour was done by women.

Of the 19 households, five exchanged labour for assistance in transplanting and one for pulling seedlings. In all but one instance the repayment of exchange labour for transplanting and pulling seedlings was done by women. The unmarried daughters of a widowed mother exchanged labour with 15 villagers to secure help with their lowland transplanting. A young wife, cultivating with her husband, arranged to exchange labour with five villagers to complete their lowland transplanting quickly. The son of a widowed mother exchanged labour with 10 villagers to gain help with his lowland transplanting. A wife, working the fields with her husband, exchanged six days of labour for assistance in lowland and highland transplanting. The young daughter of a widowed mother exchanged labour with four villagers for one day each for help in highland transplanting. The wife of a blind man exchanged labour with three people, each for two days, to complete the pulling of seedlings before the soil in their paddy field dried up. Contractual exchange labour for transplanting and pulling seedlings was repaid with equal days. In all six cases, exchange labourers complemented the work done by household labourers. In three of the cases, hired workers were contracted to further augment the tasks done by the exchange and household labourers.

Family Exchange Labour in Rice Cultivation

In addition to exchange labour performed under contractual terms, family households in Babaong assisted one another in rice cultivation without the need for repayment. The married daughters of an elderly widow pulled seedlings for their mother. A young couple worked on the farm of the wife's disabled father without requiring strict terms of exchange. The married daughters of a father stricken by a stroke worked with their husbands on the rice fields of their parents without the need for exchange. The sister-in-law of a second wife helped the latter with her cultivation. Two married sisters helped their two unmarried sisters with cultivation on their mother's farm.

Assistance through Borrowing

In the Babaong households studied, assistance was available in the form of borrowing land, draught animals, rice and cash.

In the 1995/96 crop season, a woman who earned primarily from her business enterprises allowed an aunt to cultivate her inherited highland plot without sharing the harvest. She also allowed a half-sister to cultivate an inherited 0.6-hectare lowland parcel without sharing. In a similar manner, a married son allowed his widowed mother to cultivate an inherited 0.1-hectare lowland plot.

In the 1995/96 crop season, four rice-cultivating households were able to borrow draught animals without the need for exchange repayment.

During the year between the 1995 and 1996 harvests, 13 households without sufficient rice stocks were able to take consumption loans from relatives and neighbours without interest. Some families gave relatives in separate households gifts of paddy and milled rice.

Some households were likewise able to borrow cash from relatives without interest. In 1995, a woman borrowed five chis of gold without interest from an aunt in Phnom Penh for medical treatment. In 1996, another woman borrowed 100,000 riels from her sister without interest for medical treatment. In late 1996, a married daughter still owed her mother one chi of gold borrowed without interest to repay debts. In 1996, a married couple borrowed half a chi of gold from relatives to contribute to the purchase of a rice thresher.

Raising Cows through 'Provas'

In Babaong, three of the 22 households documented raised cows through *provas* reciprocal agreements. The arrangement required the household to take care of a cow owned by someone else. In return, the household received the first and every other offspring.

2) Mutual Help in Trapeang Prei

Family Exchange Labour in Rice Cultivation

In the 1995 crop season, eight of the nine households reviewed in Trapeang Prei cultivated some rain-fed rice, though one household cultivated only a small portion of a house lot. Within one family, four households (three married daughters and their parents) helped each other with rice cultivation tasks without requiring a strict accounting of the work done. Most of the exchange within family households was for pulling seedlings and transplanting, though in one instance the father ploughed and raked for two of his married daughters. The four households in this family did not engage in contractual exchange labour with other villagers.

One other household in this family likewise exchanged labour with a group of relatives in rice cultivation tasks without requiring exact measures of exchange for the work done. The only exception was that when this household ploughed for one member of the group, it required one full day of transplanting for one morning of ploughing.

The family households of a widowed mother and her married daughter also cultivated their farms together. The two households exchanged labour in most cultivation tasks except ploughing. Without draught animals of their own, both households hired someone to plough for them. Since the farm of the mother was much larger than that of the daughter, a share of the mother's harvest was given to the married daughter and her husband.

Assistance through Borrowing

In Trapeang Prei, households did not as a rule borrow rice from each other without interest. Nevertheless, in the past two years, three of the nine households were able to borrow rice without interest from relatives and better-off neighbours.

Although family members did not as a rule expect to borrow rice from each other without interest, they did rely on each other for gifts of rice. One married daughter received milled rice from her parents without having to repay them. With a young baby and no financial support from her husband, she lived with her parents and relied on them for her livelihood. Another married daughter within the same family likewise received amounts of milled rice from her parents as gifts.

Raising Cows through 'Provas'

One Trapeang household documented in the case accounts cared for one cow under a *provas* agreement with a distant relative.

Chapter Five

Gender Well-Being

Gender relations within and among households played an important part in the determination of livelihood strategies. The family accounts from Babaong and Trapeang Prei deviated somewhat from earlier observed patterns of labour shortage, in that the presence of able-bodied workers, men and/or women, was found to exist in most of the households studied. Nonetheless, changes had taken place in conventional divisions of work as households struggled to survive under newly defined social and economic conditions. In both villages, households were engaged in a diversity of earning activities and women and men pursued these tasks cooperatively within a rather flexible, though still somewhat segmented, division of labour. In the more vulnerable households of widows and blind men, women assumed the major burden for livelihood subsistence and security.

In rice cultivation, men usually ploughed and raked and women normally pulled seedlings, transplanted and harvested. In some Babaong households, men defied a common practice and, on their own farms, helped women to pull seedlings and transplant. In Trapeang Prei, men performed these latter tasks on their own farms and within labour exchange agreements among relatives. However, in Babaong it was left to women to repay the often numerous days of labour owed for borrowing draught animals. And in both villages, women rather than men hired out their labour for low wages to pull seedlings, transplant and harvest. In Trapeang Prei, women from poor households travelled great distances and worked for weeks at a time as migrant labourers in rice cultivation.

In palm sugar production and fishing, women complemented the work of the men and engaged actively in tasks related to processing and trading. Women raised pigs and poultry, cultivated vegetables, gathered snails and crabs, and sold food around the village. Men caught fish and frogs to augment earnings and to supplement food consumption. More importantly, the men earned from building earthworks and construction. Women from poorer households sometimes joined their husbands or worked alone with their children in the back-breaking work of digging and carrying soil. Daughters and sons helped their parents and contributed to household subsistence in rice cultivation, palm sugar processing, fishing, small-scale trading, farm labour, building earthworks, raising livestock and food gathering. Temporary labour migration of both men and women from the rice-deficit village of Trapeang Prei was common. By contrast, labour migration from the rice-surplus area of Babaong was rare.

Within the family households examined, there were numerous examples of strong cooperative relationships among women and men. There were also examples of adverse effects on women such as desertion, domestic violence, and unequal sharing of responsibility for livelihood security. This pointed to the complex and contradictory nature of gender relations in

rural Cambodia. Patterns were still emerging and their consequences for long-term subsistence and security were still unclear.

Chapter Six

Policy Implications

A comparative review of the family accounts presented in this study underscores the importance of approaching livelihood security in Cambodia from a local as well as a national perspective. Clearly, the ecological circumstances prevailing in Babaong and Trapeang Prei villages have done much to condition the coping strategies of vulnerable households.

In both villages, rice production was an important, though not an exclusive, factor in household livelihood security. The critical difference was that in Babaong rice production was a major source of subsistence for most of the households studied, while in Trapeang Prei it was not. A key livelihood security issue in Babaong, and to a lesser extent in Trapeang Prei, was not rice productivity alone but rice self-sufficiency.

For very different reasons, measures to further increase rice productivity in the two villages were unlikely to have much impact. In Babaong, the dry-season flood-recession rice regime, augmented by the use of high-yielding technology and irrigation pumps, and limited by the inherent inability to produce more than one crop per year, had reached the natural limits of its productivity. In Trapeang Prei, the wet-season rain-fed rice regime was destined to remain unproductive for want of a large-scale and cost-prohibitive irrigation system.

National efforts to increase rice production and productivity are critical to Cambodia's attainment of food security, but the findings of this study underscore as well the importance of a household's access to the yields that are harvested. More specifically, policy and programme interventions at local levels designed to provide greater security of land tenure, to supply more ample stocks of draught animals, to introduce well thought-out schemes of affordable credit, and to institute systems of adequate health care, would do much to enable vulnerable households to retain the rice that they now produce. Greater access to land, draught animals, affordable credit and adequate health care would improve the capacity of households to enhance their attainment of rice self-sufficiency.

Although households in both Babaong and Trapeang Prei relied on a diversity of household pursuits to achieve livelihood security, the composition of their earning sources varied widely. In Babaong, most households cultivated rice as a major source of subsistence. Others earned primarily from fishing, trading and wage labour. Households supplemented their earnings from these pursuits through activities such as farm labour, home gardening and food gathering. In Trapeang Prei, the households reviewed did not cultivate rice as their major source of livelihood. Instead, they relied principally on income from palm sugar processing and wages largely from migrant labour. Households supplemented their earnings in these pursuits and in rice production through enterprises such as small-scale trading, home gardening and food gathering.

Policy measures designed to enhance livelihood security at the local level need to be sensitive to differences in the composition of earning sources. In Babaong, preservation of the natural resource base of the flood-recession rice regime would seem paramount. The leasing of fishing grounds to community interests rather than to private individuals would likewise augment the livelihood security of local residents. In Trapeang Prei, the diversification of the rural economy through interventions such as labour-intensive agro-processing factories would provide more work opportunities for the local community. Steps taken to ensure the sustainable production of firewood would arrest the decline of palm sugar processing activities.

In both Babaong and Trapeang Prei, the country's transition to a market economy had affected coping strategies at the local level. In Babaong, the introduction of irrigation pumps, hybrid seed varieties and the use of fertiliser had increased rice yields significantly over the past decade. The fact that most vulnerable households owned small parcels of rice land allowed them to benefit somewhat from the gains in productivity. At the same time, the commercialisation of rice production in the village made them dependent on capital inputs and imported fuel. In Trapeang Prei, households at the time of the study were able to take advantage of work opportunities in construction generated by development in and around Phnom Penh. Subsequent slowdowns in the economy, however, made these jobs uncertain.

Policy-makers need to recognise that the country's transition to a market economy has both beneficial and adverse consequences for vulnerable households. For the moment, mutual assistance practices within and beyond kinship groups have acted to minimise the exigencies of the market economy. But trends are not encouraging, because the monetarisation of the economy tends to undermine the ability of the poor and vulnerable to make moral claims on livelihood subsistence and security. This study thus points to the need to develop a national anti-poverty strategy that takes into consideration the special situation of vulnerable groups struggling to survive and improve their lives within diverse ecological circumstances.

Part Two

**Accounts from the Prey Veng
Village of Babaong**

Babaong Village

Babaong village is one of five villages in Babaong commune of Peam Ro district, Prey Veng province (see Map 1 overleaf). The village is located 17 km from the Neak Loeang river crossing, which in turn is 62 km from Phnom Penh.

In 1970, there were 220 households in Babaong village. By 1986, the number of households had risen to 344, and by 1996 to 462. In 1966, most households had some access to flood-recession rice land in the village. In 1996, 456 hectares of lowland rice and 87 hectares of highland rice were cultivated. Yields on the irrigated lowlands generally amounted to more than three tons of paddy rice per hectare. Yields on the highlands were usually less than one ton of paddy rice per hectare.

— There were two wats at each end of Babaong. Primary school classes were held at both wats in the mornings. In 1996, the World Bank-supported Social Fund financed the construction of four new classrooms in the village. Secondary school students had to travel to Prey Kandieng 3 km away, or to Peam Ro 11 km away.

There were no health clinics in Babaong. Villagers relied on the services of nurses and midwives in Babaong or used private health clinics in Neak Loeang. They seldom went to the provincial hospital in Prey Veng town.

Case One

The Story of Khy Ny and Kin

Khy Ny had lived practically her entire life in the village of Babaong.¹ Ny had married Khy Sam at the age of 22 and had six children. In the 1960s and early 1970s, her family owned four hectares of land in Babaong and another five hectares in neighbouring Prey Kandieng commune. Because they lacked available labour, they used to allow others to cultivate the Prey Kandieng land in exchange for farm work on the Babaong property.

In 1972, Khmer Rouge soldiers took control of Babaong and Khy Ny's family, together with other residents, were forced to evacuate to Toap Sdach village in Ba Phnom district. They lived there for the next three years while the rebel forces laid siege to Phnom Penh. In 1975, the villagers returned to Babaong under the Khmer Rouge regime to find their former houses dismantled and their way of life inexplicably changed.

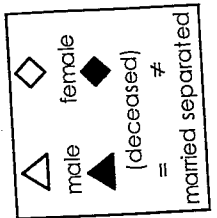
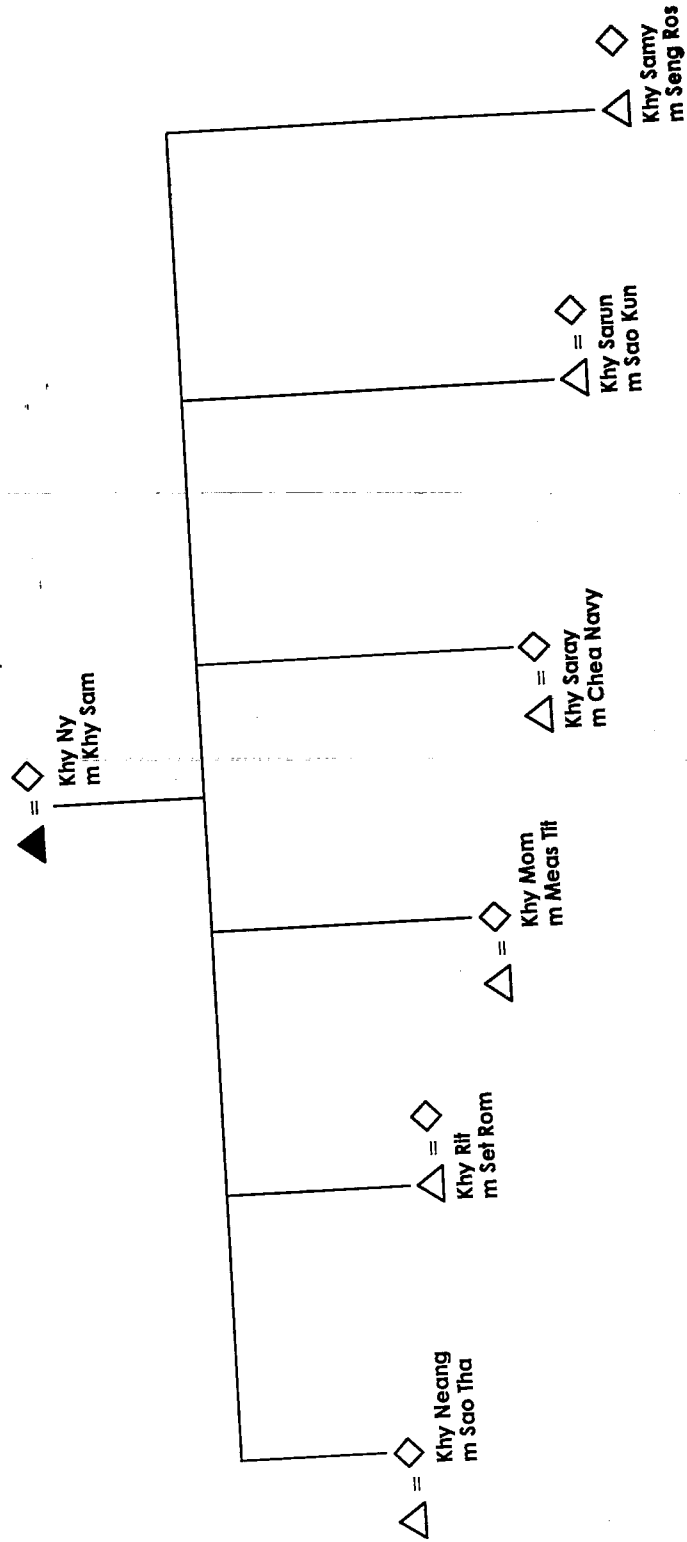
In 1976, Khy Ny's husband was arrested and killed by Khmer Rouge soldiers. Ny remembered the afternoon that he was led away with five other people, never to return, to meet with the security officer of the commune in Ponley village. Her youngest child was then only one month old. Two months later, her three eldest children were detained at the village warehouse. Khy Ny courageously stood up to the Khmer Rouge. "If you are going to kill my children," Ny demanded of the authorities, "kill me first." As a result of her protest, her children were later released.

In 1979, under the government of the People's Republic of Kampuchea, the widowed Khy Ny became deputy chief of her *krom samaki* (solidarity group). As part of her responsibilities, Ny informed group members of the collective farm work that needed to be done such as clearing forested areas, raising earthworks, building seedbeds, transplanting, and pumping water. In the early years of the *krom samaki*, Khy Ny received a share of the harvest based on the number of household members and the nature of their participation in the labour force. Productive members received larger shares, though unproductive members also were given rice. The latter included Ny's youngest child, who had lost the sight of both eyes at the age of one.

In 1996, Khy Ny was 59 years old and lived in Babaong along with her six children. Now all married, her children were: a 37-year-old daughter, Khy Neang; a 34-year-old son, Khy Rit; a 32-year-old daughter, Khy Mom; a 29-year-old son, Khy Saray; a 24-year-old son, Khy Sarun; and a 21-year-old son, Khy Samy (see Figure 1 overleaf).

¹ Although the stories presented in this paper are actual accounts, the names of the families and their members have been changed.

Figure 1. The Khy Ny and Kin Family Households



Landholdings

With the break-up of the *krom samaki* and the distribution of rice land to individual households, Khy Ny and her six children obtained about one hectare of dry season flood-recession rice land. In 1996, this hectare of rice land had been distributed between six separate households, with the two older children acquiring the larger shares. Khy Neang received about 0.3 hectares and Khy Rit about 0.2 hectares. Khy Mom, Khy Saray and Khy Sarun each received about 0.1 hectares. Khy Ny retained control over the remaining 0.2 hectares, though this was to become the inheritance of her youngest son, the blind Khy Samy.

Until 1993, Khy Ny and Khy Samy lived with the household of Ny's daughter Mom. Aside from working their own land, Mom and her husband cultivated Ny's 0.2-hectare parcel and gave her a share of the net harvest, though not a fixed share. Khy Ny had since built a new house for herself and Samy on a small house lot at the edge of the village. "I spent two chis of gold for the materials," said Ny, "and our relatives and neighbours helped us build the house." Relying primarily on the labour of Samy's wife, Ny now cultivated on her own the 0.2-hectare parcel that she retained. Ny's son Sarun had also allowed her to cultivate his 0.1-hectare inherited plot without requiring a share of the harvest.

Khy Sarun was able to relinquish the 0.1-hectare inherited parcel to his mother because he had acquired access to more land through his marriage to Sao Kun. When Sarun married Kun four years earlier, her mother had allowed them to cultivate a relatively large 1.5-hectare parcel of family lowland near the irrigation canal. Although this land had yet to be given to Kun, her mother allowed the young couple to work it without sharing the harvest. In addition, Sarun and Kun cultivated a 0.2-hectare parcel of highland with Kun's mother, and divided the harvest with her equally.

Khy Sarun was not the only child of Khy Ny to expand landholdings through marriage. Three of Ny's other children had done likewise. Khy Rit's wife, Set Rom, had received about 0.8 hectares of lowland from her mother, which increased the household's holdings to 1.0 hectares. Khy Mom's husband, Meas Tit, had received about 0.8 hectares of lowland from his mother, which enlarged the couple's rice land to 0.9 hectares. Khy Saray's wife, Chea Navy, received about 0.2 hectares of lowland near the irrigation canal from her mother, which extended their landholdings to 0.3 hectares. Khy Neang was not able to augment her original 0.3-hectare parcel through marriage to her husband Sao Tha.

Khy Ny's household acquired no additional landholdings through Khy Samy's marriage to Seng Ros, though it did acquire labour to work the land. For some years, Ros had come from her village of Prey Toteung in Prey Veng district to work in the rice fields of Babaong as a farm labourer. Ny spent eight chis of gold on the wedding, raising part of the amount through the sale of a house lot in the village. Through the marriage, the household had secured an able-bodied worker to cultivate their rice fields. Ros played a central role in the production process, though Samy, in spite of his blindness, did what work he could to help. With Ros, Ny had ensured that someone would care for her disabled son after she died.

Rice Cultivation

In the 1995/96 dry crop season, Khy Ny and her children cultivated their rice farms through a combination of household, exchange and hired labour. Each of the six households had available adult labour, though Ny's grandchildren were not at an age where they provided much assistance in rice production. Only Ny's household, as a consequence of Samy's blindness, was without an able-bodied man. Ny herself had been involved in an accident some years earlier while riding in a *remorque* (motorcycle-driven cart) which had tipped over. Since then, she had not been able to work in the rice fields.

Household labour

Rice cultivation based on household labour had traditionally been central to village rice production, and the forced cooperative experiments under the Khmer Rouge regime and later the *krom samaki* had done little to stem its persistence. Innovations brought about by the use of high-yielding seed varieties and the commercialisation of rice production had led to shifts in the use of household labour, but it remained an important part of the cultivation process.

Members of the Khy Ny family households ploughed, raked, sowed, pulled seedlings, transplanted, irrigated, harvested and threshed on their own farms. Divisions of labour between men and women were evident, but the family did not strictly adhere to all practices common to the village. Following conventional norms, the tasks of ploughing and raking were done by the men using their own or borrowed animals. In the 1995/96 crop season, Sao Tha ploughed and raked on his own farm, as did Khy Rit, Meas Tit, Khy Saray and Khy Sarun. The men, including the blind Khy Samy, prepared the dykes and plot divisions.

Sowing, pulling seedlings and transplanting were largely performed by women. Among the wives, only Chea Navy, sickly since the birth of her first child, did not engage in these or other rice cultivation activities. The men went against usual practice and joined their wives in completing these tasks. "Some villagers consider sowing, pulling seedlings and transplanting the work of women, but that does not matter to me," said Khy Saray. "I still do them."

Most husbands assisted their wives in sowing or did it themselves. Several husbands likewise pulled seedlings. All of the husbands carried bundles of seedlings to the fields for transplanting, including Samy with Ros leading him by the hand.

Transplanting in the last crop season was mostly contracted out to hired labour, though some household members, both men and women, worked alongside the labourers in their own rice fields.

Harvesting in the last crop season was likewise contracted primarily to hired labour. This did not prevent some of the women from harvesting with the labourers. Most of the women prepared food for the workers. The men carried bundles of harvested rice to the threshing area. Threshing was done mainly by machine, though several men threshed by hand.

Exchange labour

In addition to labour availability within the household, ownership or access to draught animals was a crucial factor affecting labour use strategies. In the Khy Ny family households, only Saray and Sarun owned their own mature oxen. Mom's husband Meas Tit was able to borrow draught animals without the need for exchange. The other three households had to exchange one full day of farm labour to secure draught animals for one morning of ploughing and raking on their rice fields. The rate of exchange was the same whether or not the owner of the animals worked.

In the 1995/96 season, Ros pulled seedlings, transplanted and harvested for 11 days for other rice farmers in exchange for 11 mornings of ploughing and raking on Khy Ny's fields. She worked for Saray, Sarun, Meas Tit and one of Ny's former *krom* members.

In the last crop season, Khy Neang pulled seedlings and transplanted for a neighbour for five full days in exchange for the use of oxen for five mornings. Her husband Sao Tha did the ploughing and raking with the draught animals.

In like manner, Khy Rit borrowed draught animals from a neighbour for 19 mornings and ploughed and raked his own fields. His wife Set Rom had a small baby and was unable to pull seedlings and transplant during the season in exchange. "Because of the baby, I was not able to do the work this year," explained Rom. "I will have to repay the days owed in the next crop season."

None of the six households engaged in exchange labour among themselves (and only one did with others) in the tasks of pulling seedlings, transplanting or harvesting in the last crop season. Khy Ny's daughters pulled seedlings for their mother, while Khy Sarun threshed rice and carried home her yield, as an expression of their gratitude. Sarun likewise threshed rice and helped carry home the harvest of his brother Saray.

In the 1995/96 season, Khy Sarun and Sao Kun worked on the farm of Kun's parents because her father was disabled. Sarun spent four mornings raking and 11 days carrying seedlings, pedalling the *rohat* (irrigation wheel), threshing and bringing the yield home. Kun spent eight days transplanting. By way of exchange, one of Kun's unmarried sisters spent four days transplanting on the 1.5-hectare parcel that Kun had been allowed to cultivate by her parents. Kun's unmarried brother helped carry seedlings on this parcel.

With respect to the 0.2-hectare parcel of higher land that Sarun and Kun cultivated with her mother, the labour within the family was shared rather than exchanged. Sarun ploughed and raked; Kun's mother sowed; Kun and one sister transplanted and exchanged labour with others for help; two of Kun's other sisters did the harvesting; and Sarun threshed the harvest by hand. No hired labour or machines were used to cultivate this low-yield parcel.

Hired labour

The Khy Ny family households hired labour to accomplish tasks such as pulling seedlings, transplanting and harvesting. In the 1995/96 season, only Mom and Saray hired labourers to pull seedlings. Both hired three labourers for three days at 2,000 riels per day plus three meals. All six households hired labourers to transplant and harvest.

Timing transplanting was critical because water could dry up in the paddy fields. It was also labour intensive. In Babaong, most of the workers hired for transplanting were women from neighbouring Prey Veng villages. Some of them had early dry season flood-recession rice farms of their own on higher ground. Others cultivated wet-season rain-fed rice farms. Seasonal patterns permitted farmers to work as hired labourers in the lowlands of Babaong in less intensive periods.

In the 1995/96 season, the six Khy Ny households hired labourers to do most of their transplanting. The rate paid by the households was 2,500 riels per day plus two or three meals. For transplanting (without meals), Ny paid labourers a total of 30,000 riels, Rit a total of 112,500 riels, Mom a total of 25,000 riels, Saray a total of 42,000 riels and Sarun a total of 187,500 riels.

Timing the rice harvest in Babaong was also critical to prevent destruction by rats. In the last crop season, the Khy Ny households hired labourers to do most of the harvesting. The rate was 2,500 riels per day plus two meals or 2,000 riels per day plus three meals. For transplanting (without meals), Ny paid labourers a total of 22,000 riels, Rit 80,000 riels, Mom 37,000 riels, Saray 30,000 riels and Sarun 80,000 riels.

Irrigation pumps were introduced to Babaong during the *krom samaki* period, but Khy Ny had relied until recently on a *rohat* to irrigate her fields. By the 1995/96 season, Ny and her children all irrigated their fields by fuel-operated irrigation pumps. Except for Saray, who owned his own irrigation pump, all the households rented them.

The rental fee for an irrigation pump was calculated by the number of litres of diesel used. For each litre of fuel used, the rent was one 12-kg basket of paddy rice. The fee was negotiable, especially if 10 or more litres of fuel were consumed. Rental fees were normally paid at the harvest. In addition to the rental fee, users had to pay the actual fuel costs.

In the last crop season, Khy Ny paid 14 baskets of paddy rice in irrigation rental fees, Khy Rit 30 baskets, Khy Mom 25 baskets and Khy Sarun 25 baskets. Khy Neang still owed her rental fee for the previous crop year. "My harvest was destroyed by rats," said Neang,

"and I was not able to pay the fee of four baskets. Now I will have to pay six baskets at the next harvest." Khy Saray had bought an irrigation pump in 1995 for four chis of gold, and now no longer needed to pay a pump fee, only the cost of the fuel. After the last harvest, Khy Sarun had bought an irrigation pump for 5.5 chis of gold.

The households did some threshing by hand, but mostly hired mechanical threshers to thresh their crops. In the 1995/96 season, the threshing fee was one basket of paddy rice for every 30 baskets threshed. Unlike irrigation pump rentals, compliance with this rate was strictly enforced and not subject to negotiation. Once the paddy rice was threshed, the men transported it home by oxcart. Some paid to transport it home by tractor at a cost of 500 riels per sack. Households milled their rice at village rice mills and paid the bran as a milling fee.

Rice Production

Each year, the receding flood waters of the Mekong River replenished the nutrients in the rice fields of Babaong and contributed to the overall productivity of the rice regime. The introduction of irrigation pumps, high-yielding rice varieties and the use of fertiliser also contributed to increased yields. Nonetheless, rice production in Babaong was at times adversely affected by pests such as rats. The early dry season highlands, far from the irrigation canal and dependent on rainfall, were affected by drought. The lowlands with access to irrigation were more productive.

In the 1995/96 season, the Khy Ny family households all used high-yielding seed varieties. Most used varying amounts of fertiliser. Ny produced 10 sacks of paddy rice on 0.3 hectares of lowland (3.3 tons per hectare). Ny claimed that her household would have produced more if paddy rice had not been lost to rats. After production expenses and the repayment of rice consumption loans, the household obtained a net yield of about six sacks.

Khy Neang and Sao Tha normally produced about 10 sacks of paddy rice on their 0.3-hectare lowland parcel (3.3 tons per hectare). In the 1995/96 season, their yield was destroyed by rats and they harvested only one sack of paddy rice (0.3 tons per hectare).

In the 1995/96 season, Khy Rit and Set Rom produced a gross harvest of 30 sacks of paddy rice on their 1.0-hectare lowland (3.0 tons per hectare). After deducting production expenses and rice consumption debts, they were left with a net harvest of 20 sacks.

In the last season, Khy Mom and Meas Tit produced 30 sacks of paddy rice on their 0.9-hectare lowland (3.3 tons per hectare). After paying eight sacks for production expenses and 12 sacks for rice consumption debts, they were left with a net harvest of 10 sacks.

Khy Saray and Chea Navy produced 11 sacks of paddy rice on 0.3 hectares of lowland (3.7 tons per hectare). After production expenses and rice consumption debts, they were left with seven sacks of paddy rice.

Khy Sarun and Sao Kun obtained 46 sacks on 1.5 hectares of lowland (3.1 tons per hectare). After production expenses they retained 40 sacks. The couple also received 1.5 sacks as their share on the 0.2-hectare highland parcel cultivated with Kun's mother.

Borrowing Rice

Of the six households, only Khy Sarun and Sao Kun was able to subsist through the entire year from the 1995 harvest to the 1996 harvest without borrowing rice for consumption needs. Within the other households, cycles of shortage, debt, repayment, shortage and debt were evident. The households were, by and large, able to secure rice consumption loans from relatives and neighbours without interest. One household also borrowed cash with interest against the next harvest and used the money to buy milled rice.

Khy Ny usually borrowed sacks of paddy rice without interest from her children and relatives during the lean season. In September 1996, Ny calculated that her household would need an additional three sacks of paddy rice before the next harvest. Her son Sarun had already given her two sacks of paddy rice as a gift. From time to time, her children and her sister, Khy Pheap, also gave her cans of milled rice and cooked food.

Khy Neang normally borrowed only a few baskets of paddy rice without interest from neighbours and paid them back at the harvest. Relatives were said to be too poor to borrow from. Her household relied primarily on cash earnings from fishing and other off-farm activities to buy milled rice.

Since the 1996 harvest, Set Rom had sold two sacks of paddy rice for cash at the market in Neak Loeang to buy medicine after the ill effects of a birth control injection. She had also sold rice to prepare for Pchum Ben religious ceremonies. Her diminished rice supply meant that she would probably experience a rice shortage before the next harvest. She usually borrowed one or more sacks from neighbours without interest until the harvest.

Khy Mom usually faced a rice shortage from September as a result of earlier debt repayments. She normally borrowed a sack of paddy rice from her husband's mother or from her neighbour without interest until the harvest. She also borrowed cash to buy milled rice in the market. The cash was payable in paddy rice with interest at the harvest. "I borrow 20,000 riels from my relative outside the village and pay back one sack of paddy rice at the harvest," explained Mom. "In Babaong, villagers borrow 15,000 riels and pay back one sack of paddy rice at the harvest." At the harvest, a sack of paddy rice was worth about 30,500 riels.

Chea Navy normally borrowed a sack or more of paddy rice without interest from her older sister, the village nurse Chea Ratha. At the harvest, Navy repaid her paddy rice loans, and inevitably borrowed again before the next harvest. At the April 1996 harvest, Navy repaid a loan of one sack of paddy rice. She later sold some rice to treat a chronic illness. By November 1996, she had again borrowed one sack of paddy rice without interest from Ratha. At times, Ratha gave Navy amounts of paddy or milled rice as a gift. Navy's sister, Chea Chum, also gave her small amounts of milled rice without the need for repayment.

Farm Labour in Rice Cultivation

Khy Saray was the only member of the Khy Ny households to hire out his labour in rice cultivation. He did not undertake the low-paying jobs of pulling seedlings, transplanting and harvesting. In the 1995/96 season, Saray ploughed for his wife's older sister, Chea Ratha, for five mornings for a total of 25,000 riels. Saray also ploughed for a neighbour for three mornings for another 25,000 riels.

In the 1995/96 season, Saray also undertook rice cultivation tasks for Chea Ratha without asking for payment. He raked for 10 mornings, helped to thresh her rice in the threshing machine, and carried her yield home with his oxcart. Chea Navy helped to cook food for the farm labourers that Ratha had hired. This work was done as part of the reciprocal exchange of services that Saray and Navy performed for Ratha to acknowledge the various loans and assistance she had provided them. "I depend on Ratha for rice, money and medical treatment," said Navy. "I cannot make an account of the help she has given us." Chea Ratha reciprocated Saray's work in her rice fields by hiring five people to transplant on his farm for two days.

Aside from hiring out his own labour, Saray earned from renting out his irrigation pump. In the 1995/96 season, he earned three sacks of paddy rice renting out the pump to his wife's cousin. Saray also used his pump to irrigate the rice fields of Chea Ratha and received five baskets of paddy rice for one day's use of his pump.

On-Farm Pursuits other than Rice Cultivation

Aside from rice production, the households did not cultivate other crops extensively. Some grew coconuts or palm trees and raised livestock and poultry.

Khy Ny harvested coconuts from four trees and sold the nuts for 300 riels apiece. She also made coconut rice cakes and sold them in the village for a daily profit of between 600 and 1,000 riels. Khy Samy and Seng Ros cultivated vegetables such as pumpkins and aubergines mainly for household consumption. Ny raised four hens.

Khy Neang raised two cows through a *provas* exchange agreement. The arrangement, common in Babaong, required that she take care of a cow owned by someone else. In return, she received the cow's first and every other offspring. Neang's 14- and 10-year-old daughters looked after the cows.

Set Rom sold coconuts from two trees and had earned 10,000 riels at the previous Khmer New Year. She also grew bananas for household consumption. Khy Rit made palm juice from one tree. His 13-year-old daughter and 11-year-old son sold the juice around the village and, in season, earned up to 1,000 riels per morning. In 1995, Rit bought two oxen for 900,000 riels, but they were still too young to work. His 13-year-old daughter took care of them and also gathered firewood for the household.

Khy Mom harvested and sold coconuts from two trees on her house lot. In 1995, she earned 9,000 riels from the sale of 30 nuts. Mom and her husband owned and cared for two young oxen and one young cow. Her husband also gathered firewood for household use.

Chea Navy had four small palm trees on her house lot. Navy's mother cut the leaves and wove them into mats for drying paddy rice. Navy did not know how to weave herself. Khy Saray owned and tended one pair of oxen. Navy raised one pig and two hens.

Khy Sarun harvested coconuts from four trees and gave the nuts to his mother for her to sell for her own income. Sarun owned and looked after two oxen. He gathered firewood and carried water for household use. Sao Kun raised one hen and five chickens.

Fishing in Common Areas

Five of the six family households did some fishing in and around the village, but only the households of Sao Tha and Khy Rit fished to earn income. The other households fished to supplement their food consumption.

In 1996, Sao Tha bought a boat from a Vietnamese resident of Peam Ro commune for 150,000 riels. He paid 50,000 riels and hoped to pay the 100,000 riels owed within two years. In August 1996, he and his wife had earned 3,000 riels per day from fish sales, though by the next month his catch had diminished. Tha and Neang sold the fish in Babaong to traders and villagers. They also gave some to their mothers. Neang likewise kept some for making the noodle soup that she sold, or bartered for rice, with her 14-year-old daughter in the village.

Fishing in the river waters around the village was not without difficulties. Every year the rights to the principal fishing grounds were leased to a bidder who policed the area with armed guards. In recent years, the zone had been leased to a businessman from Kompong Cham province who enforced strict compliance with the agreement he had signed with the government. In 1995, Sao Tha was arrested for fishing illegally inside the zone. He had been trapping prawns for seven days and had made 50,000 riels before he was caught. In his attempt to escape the guards had fired a warning shot. They later beat him. Tha had to pay 300,000 riels to the holder of the rights before he was released. He borrowed 100,000 riels from his mother and 200,000 riels from his wife's relative without interest to pay the fine. Then he dug and carried soil to build earthworks and returned to fishing to repay the debts.

In 1996, Khy Rit caught fish during the wet season with a dug-out palm boat and net. In the months from June to August, Rit and his wife Rom could earn up to 5,000 or 6,000 riels per day from selling fish. At other times, they earned from 1,000 to 2,000 riels per day. Rom sold the fish at the village canal to the traders from neighbouring villages. When Rit caught fish, the couple gave some to their mothers and kept some for their own consumption.

In 1996, Khy Mom bought a small net so that her husband Meas Tit could fish for household consumption. Khy Sarun fished to supplement household food consumption and shared the catch with his mother, Khy Ny, and the mother of Kun. Khy Saray did not fish but he and his wife often received fish from their relatives. Khy Samy had a fishing net and, his blindness notwithstanding, fished in the rice paddies nearby his home. At times he sold some fish, though his catch was mainly used for household consumption.

Off-Farm Work other than Fishing

Although the households of Sao Tha and Khy Rit earned substantially from fishing, only the households of Sao Tha and Khy Saray earned significantly from other off-farm work.

Sao Tha dug and carried soil by the cubic metre to build earthworks. In 1996, he had earned 170,000 riels at one of the village wats. He had wanted to do more of this work, but had not yet fully recovered from the beating he had received in prison three years earlier while under arrest for robbery and murder.

Khy Saray acted as an agent in the village for buyers of water buffalo. After the harvest in 1996, he had arranged for the sale of buffalo five times. His job was to go around the village and identify those people who wanted to sell their animals. A large buffalo sold for about 500,000 riels. Saray received commissions of between 5,000 and 10,000 riels for every pair of water buffalo sold to the traders. Saray, weak from the shrapnel still in his body from his years as a soldier, did not carry soil to build earthworks.

In 1995, Meas Tit had worked as a soil carrier, but in 1996 he stayed at home to look after the children while Khy Mom recovered from a *remorque* accident. Tit had spent about six years in Siem Reap province as a conscripted soldier, and was no longer able to do strenuous physical work for extended periods.

Khy Rit had also been a soldier and had damaged his leg as a result of his years in service. His wife no longer allowed him to work as a soil carrier or construction labourer. "The money he earns," said Rom, "has to be spent on the treatment of his leg."

Khy Sarun did not engage in any other off-farm work.

Khy Samy played the traditional Cambodian string instrument known as the *tro* with other musicians at Pchum Ben and Khmer New Year gatherings, and earned from 3,000 to 5,000 riels for each performance.

Health

Khy Ny had been disabled for about 10 years since her fall from a *remorque*. Her household spent about 10,000 to 20,000 riels per year on medical treatment. Seng Ros had given birth at home and the midwife was paid 5,000 riels.

In 1993, Sao Tha was accused of robbing and killing a person from Ba Phnom district. He was arrested and put into prison. "My hands and legs were chained and my head covered," Tha recounted. "I was severely beaten for three days." After residents from Babaong testified at the Prey Veng provincial court that he had been at home on the day of the robbery and murder, he was released. He received nothing from the authorities for the medical difficulties that arose from the beatings. In late 1993, Tha and Khy Neang sold a small plot of highland for four chis of gold to raise money for his medical treatment.

In 1995, the seven-year-old daughter of Khy Rit and Set Rom fell ill. They spent three chis of gold to treat her. Two chis came from Rom's savings; one chi was borrowed from her mother without interest. In 1996, Set Rom also fell ill from the adverse effects of a birth control injection. To help pay for her household's health costs, she sold a 0.1-hectare highland plot for two chis of gold. She was to receive the money at the forthcoming harvest.

In 1996, Khy Mom spent one month in the hospital after the *remorque* she was riding in toppled over. She recovered but walked with a cane. In 1995, she had given birth in the Prey Veng provincial hospital and had borrowed money to pay the bill. Late that year, Khy Mom had borrowed one chi of gold with interest of 0.1 chis per month. She was supposed to pay the principal and interest at the 1996 harvest but had not yet done so.

In 1996, Chea Navy borrowed 100,000 riels without interest from her sister Chea Ratha for medical treatment at Calmette Hospital in Phnom Penh. Navy had lost the sight of one eye some years earlier after she was struck in the face by her husband. She stayed at the hospital for two days and spent 75,000 riels for an artificial eye and 15,000 riels for medical services and treatment. "Ratha said that I could repay the loan whenever I had the money," explained Navy. Ratha also treated Navy's children at no cost.

Members of Khy Sarun's household rarely fell ill. When Kun gave birth, Chea Ratha delivered her baby at no charge. Sarun and Kun spent 30,000 riels for medicine. Sarun also helped Ratha carry her paddy rice yields home after threshing.

Case Two

The Story of Lab Phy and Van Kov

1) The Lab Phy Family Household

In 1956, 18-year-old Lab Phy married 30-year-old Pan Pit in Babaong village. Of their 12 children, eight died in the Khmer Rouge period from disease and starvation. In 1972, Phy was separated from Pit when Khmer Rouge forces took control of Babaong and evacuated villagers to Ba Phnom district. Stranded in Prey Veng district, Pit was unable to join his wife and children in Ba Phnom for some time.

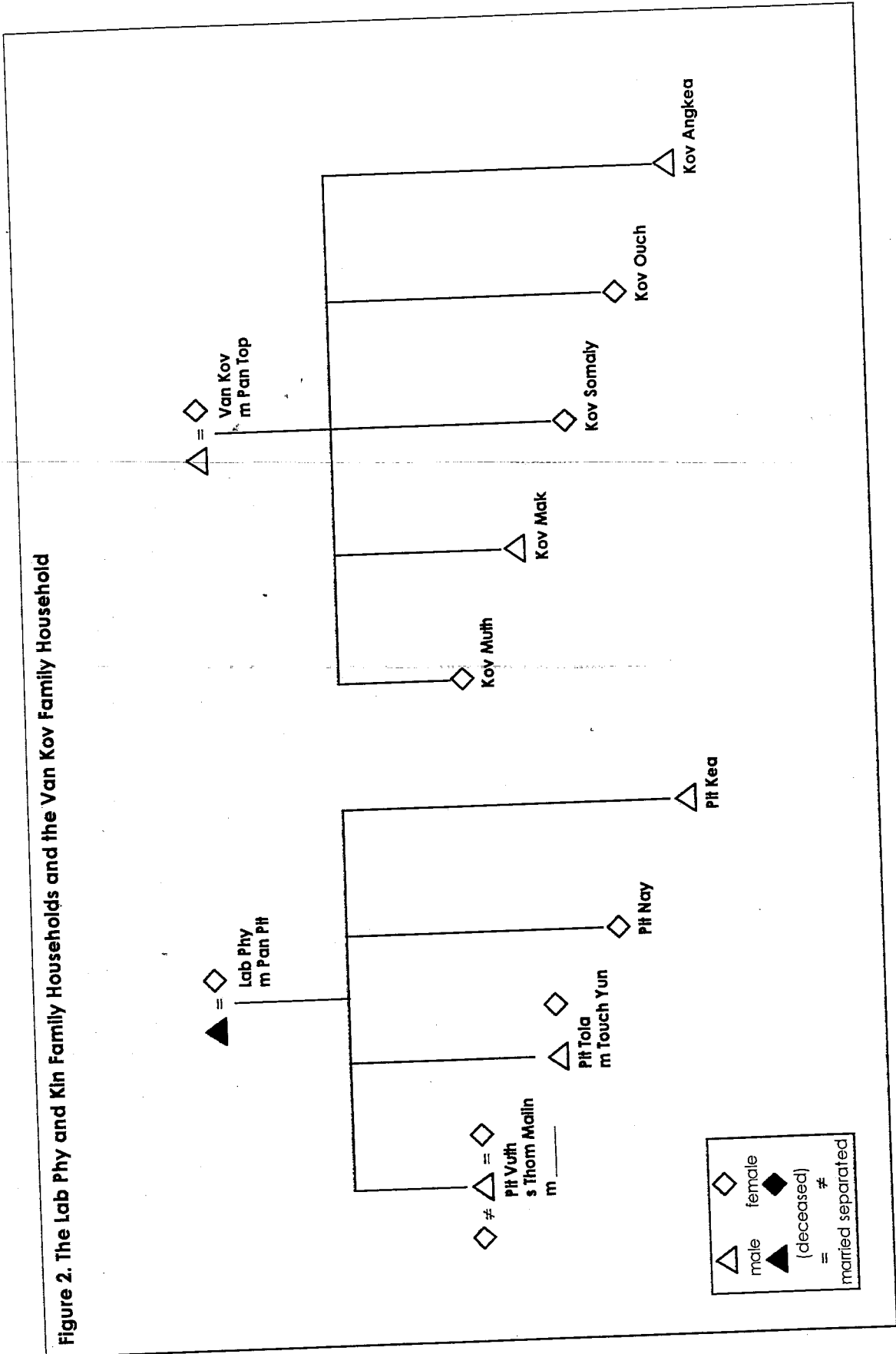
In 1975, the family returned to Babaong. Life under the Khmer Rouge was difficult. The children were small and needed care that their parents were unable to provide. Phy and Pit had little rice to eat in the communal hall and often supplemented their diet in secret with leaves, for which they risked punishment. Like other villagers, the couple witnessed the torture of relatives by the Khmer Rouge soldiers.

In the *krom samaki* organised by the People's Republic of Kampuchea, Phy's family still experienced food shortages. Although every household member received a share of the harvest, the shares of the non-working members were small. To increase the family's food supply, Phy bartered bananas, coconuts and papayas grown on her house lot in exchange for paddy and milled rice. Phy also brought fish from traders at the village canal and processed it into *prahoc* to barter for rice. With assistance from other villagers, the family built a new house from materials used in the shelters of the Khmer Rouge period.

By the time Pit died in 1986, the household had recovered somewhat from the terrible ordeal it had suffered in the preceding decade. With the dissolution of the *krom samaki*, the household had received more than 0.5 hectares of lowland and a plot of highland. Aside from rice cultivation, Pit had earned income as a builder of earthworks, Phy as a farm labourer, and the two eldest sons as migrant workers in Phnom Penh. But with the death of her husband and the marriage and departure of her two eldest sons, Lab Phy's life took a difficult turn again.

In 1996, Lab Phy, now a 58-year-old widow, lived in Babaong with her two unmarried children: a 21-year-old daughter, Pit Nay; and a 19-year-old son, Pit Kea. Her eldest son, 31-year-old Pit Vuth, was divorced from his first wife, Thom Malin, and married to a woman in another Prey Veng village. Her second eldest son, 28-year-old Pit Tola, was married to Touch Yun and lived in a separate household from his mother in Babaong (see Figure 2 overleaf). Neither married son had received rice land from Phy as an inheritance.

In Phy's household, Nay was the main income earner and did much of the cultivation on the household's flood-recession rice land. Her brother Kea was disabled with an injured leg which prevented him from doing strenuous work in the paddy fields. Phy herself was seriously ill with tuberculosis and had been unable to work in the rice fields for the past two



years. "Much of our income from rice production has been spent on illness," Phy said. "In recent years I have sold two rice plots and four cows to pay for treatment. Our rice land has now become smaller." Neither Phy, Nay nor Kea could read or write.

Rice Cultivation and Production

In 1996, Lab Phy cultivated a 0.5-hectare parcel of lowland and a plot of highland. Two year's earlier, she had sold a small plot of her lowland for 1.5 chis of gold to treat her son's leg. More recently, she had sold a small seedbed area of highland to the village nurse, Chea Ratha, for one sack of paddy rice and 10,000 riels.

For the past two years, Phy had used high-yielding seed varieties and fertiliser on the lowland, which had doubled her yield to a high of about 20 sacks of paddy rice each season. Phy also used high-yielding varieties without fertiliser on the highland, and was able to harvest five sacks of paddy rice each season.

In the 1995/96 crop season, Phy's daughter Nay, through her own and exchange labour, assumed the burden of work in the household's rice cultivation. Nay was assisted by her married brother Tola and even more by his wife Touch Yun.

Ploughing and raking—Without draught animals and an able-bodied man in the household, Phy arranged for three neighbours to plough and rake her rice fields as part of an exchange labour agreement. Ploughing the lowland took six mornings to complete, and the highland three mornings. In exchange for this work, Nay transplanted for nine full days in the rice fields of the neighbours.

The raking of the lowland took five mornings to finish and the highland three mornings. In exchange for this labour, Nay transplanted eight full days on the neighbour's farms.

Preparing seedbeds—Tola levelled the bed to make it smooth. There was no need to plough and rake it.

Sowing—Nay sowed the seed bed.

Pulling seedlings—Nay and Yun pulled the seedlings and carried them to the paddy field. Kea helped to prepare the dykes.

Transplanting—Nay and Yun transplanted the lowland by themselves. They both worked for 13 days (a total of 26 days of work). No exchange or hired labour was used.

On the highland, Nay and Yun transplanted with help from exchange and hired labour. Nay and Yun both worked for two days, Nay contracted exchange labour with four villagers for one day, and Phy hired four labourers for one day (a total of 12 days of work). Nay transplanted for four days on the farms of those who provided the exchange labour. (Unlike ploughing and raking, pulling seedlings and transplanting were exchanged with equal days of work.) Phy hired the four labourers at 2,000 riels per day plus three meals.

Weeding—Nay did the weeding and applied fertiliser.

Irrigation—Phy hired an irrigation pump to irrigate the lowland. Although the standard rate was set at one basket of paddy rice for every litre of fuel consumed, Phy was charged only 13 baskets for 27 litres used. Phy also paid 800 riels per litre for the fuel consumed.

Harvesting—Nay and Yun harvested the lowland with help from farm labourers paid at a rate of 2,500 riels per day plus two meals. The household spent 20,000 riels for lowland harvesting over a three-day period. Nay and Yun harvested the highland by themselves.

Threshing—On the lowland, Tola carried the harvested rice to the threshing area. Phy hired a thresher at the rate of one basket of paddy rice per 30 baskets threshed. On the highland, Nay and Tola threshed by hand.

Milling—Phy milled her rice at one of the village rice mills and paid the bran for the milling fee.

In the 1995/96 season, Phy produced 20 sacks of paddy rice on the 0.5 hectares of lowland (4.0 tons per hectare). Due to the lack of rain, the household obtained only one sack of paddy rice on the highland. The lowland yield was relatively high for 0.5 hectares, but debts and sharing costs cut deep into the portion of the harvest that the household retained.

“Last crop season we were able to produce 20 sacks of paddy rice on the lowland,” Phy explained. “From this amount, we repaid 10 sacks for loans we had made before the harvest. The amount we borrowed was spent on medicine and food, and on production costs. My son Tola and his wife Yun helped us to pull seedlings, transplant and harvest on the farm, and we gave them five sacks of paddy rice at the harvest. Only five sacks of the total yield remained for us.”

Health

In 1994, Lab Phy spent three months at the Peam Ro district hospital and learned from the doctor that she had tuberculosis. She was told to no longer work in the rice fields. In the same year, Phy's son Kea had likewise been admitted to the Peam Ro hospital. He had fallen from a tree in 1992 and had injured his leg. Kea could now walk only with difficulty.

Phy had sold a parcel of her lowland and a small plot of her highland to pay for these and recurring medical expenses. In addition, she had sold four small cows for five chis of gold. Moreover, she had spent seven chis of gold from savings her daughter Nay had accumulated from work as a farm labourer.

Credit

When Lab Phy depleted her rice supply, she borrowed from other villagers. At times she borrowed rice without interest for short periods and repaid the loans in cash at market value. Or she repaid the rice at the harvest with 30 percent interest. At other times, Phy borrowed cash. She repaid each loan of 15,000 riels with one sack of paddy rice at the harvest (worth about 30,500 riels). Otherwise she borrowed cash at 20 percent interest per month and repaid the loan in cash or in paddy rice at market value.

By September 1996, five months after the last harvest, Phy had already borrowed 40,000 riels at 20 percent interest per month. The last 10,000 riels was borrowed to finance the expenses of her son Kea who accompanied their blind neighbour, Van Kov, to Phnom Penh in search of a job. Kov knew the city as a beggar, and through his contacts had arranged for Kea to work at a Phnom Penh residence for 50,000 riels a month plus meals and accommodation. Pit worked for 15 days and then returned to Babaong because his leg was bothering him. When the rising waters of the Mekong flooded the village in late September 1996, he lived and ate at one of the village wats and did chores for the monks.

Pchum Ben

At the Pchum Ben ceremonies in September and October, Lab Phy spent as much as 50,000 riels. In addition to household food preparations, each *krom* prepared food twice for each of the two village wats. “If I have the money, I spend 4,000 to 5,000 riels for each of our group preparations,” Phy said. “If I have little money, I spend only 1,000 riels for each preparation. Sometimes I borrow money with interest from the richer families in the village to pay for the expenses.” In addition to the group preparations, Phy contributed between 100 and 500 riels plus 0.5 kg of milled rice to the monks each night at the ceremonies at the wat.

During the Pchum Ben festival and at other times of the year Phy's oldest son Vuth visited Babaong and gave her between 1,000 and 2,000 riels. He also gave small amounts of money to the three children from his first marriage. These children lived with their mother, Thom Malin, and often ate at Phy's house.

2) The Household of Thom Malin

Thom Malin was the first wife of Lab Phy's oldest son Vuth Malin and Vuth had divorced about two years earlier. Malin lived with her mother and three young children in Babaong. Vuth had remarried and now lived in the village of his new wife. "My husband spent a lot of time at my aunt's house in Phnom Penh trying to escape conscription into the army," Malin said. "When he returned to Babaong he was lazy and did not want to work and earn a living. He used to drink and we would quarrel."

Livelihood and Illness

Although Thom Malin could not read and write, she was an astute businesswoman. In 1995, she had earned money trading cucumbers and selling banana fritters. She then used this capital to lend to others with interest. She would lend 13,000 to 15,000 riels to villagers before the Pchum Ben festival in September and charge one sack of paddy rice (worth 30,500 riels) at the April harvest. Alternatively, she would lend 18,000 riels after the Pchum Ben festival and charge one sack of paddy rice at the harvest. In 1996, she received 20 sacks of paddy rice as repayment for loans due at the harvest.

In 1995, Thom Malin became seriously ill with *speuk*, a gaseous illness that causes numbness. "I was so sick I could not get up from my sleeping mat," she said. "I received serum and injections from Chea Ratha and was treated by Khmer and Chinese healers. In all, I spent more than one damlung [10 chis] of gold for this treatment. Aside from my savings from selling cucumbers and loaning money, I borrowed five chis of gold without interest from my aunt in Phnom Penh. I still have to pay back this debt."

Landholdings

During her illness, Thom Malin's aunt in Babaong helped her to look after her children and her youngest often stayed at the aunt's house. Malin allowed this aunt to cultivate her inherited highland plot without sharing the harvest. Although the yield depended on rainfall and often amounted to no more than two to three baskets, more than two sacks of paddy rice were produced in the 1995/96 crop season.

In addition to this small plot of highland, Malin received a 0.7-hectare plot of flood-recession lowland from her mother. For the past two years, Malin had allowed her half-sister to cultivate the parcel without sharing the harvest. In the 1995/96 season, the parcel produced about 30 sacks of paddy rice. Malin considered asking her half-sister for a share of the harvest after the 1996/97 season to supplement her own household's consumption needs. Before her divorce and illness, Malin used to cultivate the rice lands herself. She said that she received little help from her husband. Malin acquired no land through her marriage to Vuth.

Other Pursuits

In 1996, Thom Malin did not have the capital to finance loans for repayment in paddy rice at the 1997 harvest. Nonetheless, still weak from her illness, she started a new enterprise, opening a small vegetable stand in front of the house and rice mill of her first cousin, the teacher Chhim Bunthan. Malin sold garlic, pepper, sugar, salted fish, biscuits and vegetables. Her mother travelled to the river crossing at Neak Loeang about 17 km away three times a

week, buying goods worth 40,000 to 50,000 riels each trip. Sales at the stand were high, but many customers owed money. At times villagers paid their debts in milled rice. Since Malin herself could not read and write, her mother marked down the names and the amounts owed to her in a notebook.

3) The Household of Van Kov

Van Kov was the blind man in Babaong who arranged work for Lab Phy's son, Pit Kea, in Phnom Penh. The 42-year-old Kov was married to 40-year-old Pan Top. The couple had five children: a 17-year-old daughter, Kov Muth; a 14-year-old son, Kov Mak; a 12-year-old daughter, Kov Somaly; a nine-year-old daughter, Kov Ouch; and a three-year-old son, Kov Angkea (see Figure 2 on page 44). The daughters of Kov and Pan had received no formal education. The oldest son had studied to grade three.

Rice Cultivation and Production

With the break up of the *krom samaki*, the household received two plots of highland and 0.4 hectares of lowland. In 1994, Van Kov sold the two plots of highland to another villager for 150,000 riels to buy rice for household consumption. In the 1995/96 crop season, Kov used high-yielding seed varieties and fertiliser and produced 10 sacks of paddy rice (2.5 tons per hectare) on the lowland. Another two sacks were destroyed by rats.

Rice cultivation tasks in the 1995/96 season were accomplished mostly by Pan Top and her daughter Muth. No labour was hired, but Top exchanged labour for ploughing, raking and pulling seedlings. Top arranged for village men to plough for five mornings and rake for five days on the lowland in exchange for 10 full days of her work on their farms. Top sowed the seedbeds herself and pulled seedlings with Muth. Top also exchanged labour with three people, each for two days, to complete the pulling of seedlings before the soil dried up. Top and Muth transplanted themselves for one full week without assistance. Top did the weeding. She also hired a pump for irrigation and paid 10 baskets of paddy rice for the rental fee and 7,500 riels for the 10 litres of fuel used. Top and Muth harvested themselves for a full week without help from others. The rice was threshed by a machine for a fee of one basket for every 30 baskets threshed.

Other Livelihood Pursuits

Van Kov stayed at home during rice cultivation and looked after the younger children. After the harvest, he went to Phnom Penh with his daughter, Ouch, to beg in the city markets. "I started to beg in Phnom Penh in 1989 when my children were growing up and our rice shortages became more frequent," Kov said. "I went first with Muth, and then with Somaly, and now with Ouch. I usually stay in Phnom Penh for one to two weeks and beg at O'Russe market or at Olympic and Duymech markets. At night, I sleep with my daughter at Wat Unalom." In Phnom Penh, Kov earned from 1,000 to 4,000 riels per day and spent 1,500 riels for each meal. He returned to Babaong after one to two weeks with net earnings of between 5,000 and 9,000 riels.

Kov's wife Pan Top was not in good health and did not hire out her labour in rice cultivation. Her daughter Muth, however, had from the 1995/96 crop season begun to pull seedlings, transplant and harvest for their neighbours. Muth worked to repay rice loans that had been received in advance. A common arrangement was that she would work five days to repay two baskets of paddy rice. In November 1996, Muth owed 90 days of farm labour to 10 villagers, including 10 days to Khy Mom, the daughter of Khy Ny. If she did not complete the work in the forthcoming crop season she could extend it into the next one.

Aside from her work as a farm labourer, Muth caught fish and crabs, gathered vegetables from common land, and collected firewood with her mother. Muth's brother Mak looked after five cows for a neighbour for two sacks of paddy rice a year. The household itself had no livestock or poultry.

Credit and Assistance

Each year, Van Kov's household experienced a severe rice shortages. Some days they were only able to eat rice porridge. To ease the shortage, they borrowed two to three baskets of paddy rice without interest from several neighbours and repaid them at the harvest. This meant that a large portion of their annual yield was used to repay consumption loans, in addition to production expenses, and that perennial shortages were inevitable. Aside from rice loans, Kov's household borrowed cash in amounts ranging from 2,000 to 3,000 riels from neighbours without interest to buy food. Occasionally neighbours gave them gifts of between 1 and 2 kg of milled rice.

In September 1996, Kov built a house with help from his relatives and friends. Several people contributed materials and cash, including 50,000 riels from the family in Phnom Penh where his daughter Somaly lived and worked. Somaly received room and board from the family but no regular salary. Kov asked about 20 villagers to help in the construction of the house and provided them with meals.

Kov relied on help from his neighbours and friends, and on alms from strangers, but he had little expectation of assistance from external agencies. "In 1993 we received 50 kg of milled rice from the Red Cross. In 1994, we received 50 kg of milled rice, one hoe, one mosquito net and one blanket from King Sihanouk. Those who had good relationships with the authorities got more gifts," Kov explained.

During the Pchum Ben festival, Kov's household spent between 1,500 and 2,500 riels for each of three neighbourhood food preparations at the village wats. Each night of the two-week festival, the household contributed from 100 to 200 riels to the monks at the wats.

Case Three

The Story of Nam My and Kin

In the early 1960s, Nam My, a resident of Kompong Trabek commune in the Prey Veng district of the same name, married Lam Sao, a man 30 years her senior, and came to live in the village of Babaong. Lam Sao's family was one of the original settlers of the village and was thus able to give the newly married couple three hectares of land for rice cultivation. During the forced evacuation of Babaong in 1972, My and her household resettled in Kompong Trabek commune. They returned to Babaong in 1980 after the ouster of the Khmer Rouge regime. My and her husband had 12 children, though only six survived beyond their early years.

In 1996, My was a widow, 54 years old and chronically ill with tuberculosis. She was no longer able to work in the rice fields of the village. Her husband Lam Sao had died three years earlier. My now lived in Babaong in the family's wooden house with her four younger children: a 28-year-old daughter, Sao Larch; a 25-year-old daughter, Sao Am Sothy; a 14-year-old son, Sao Thou; and a 12-year-old daughter, Sao Channa. My's two elder children were married and lived in separate households. Her 38-year-old son, Sao Hy, lived with his wife and five children in Babaong. Her 31-year-old daughter, Sao Soky, lived with her family in Phnom Penh (see Figure 3 overleaf).

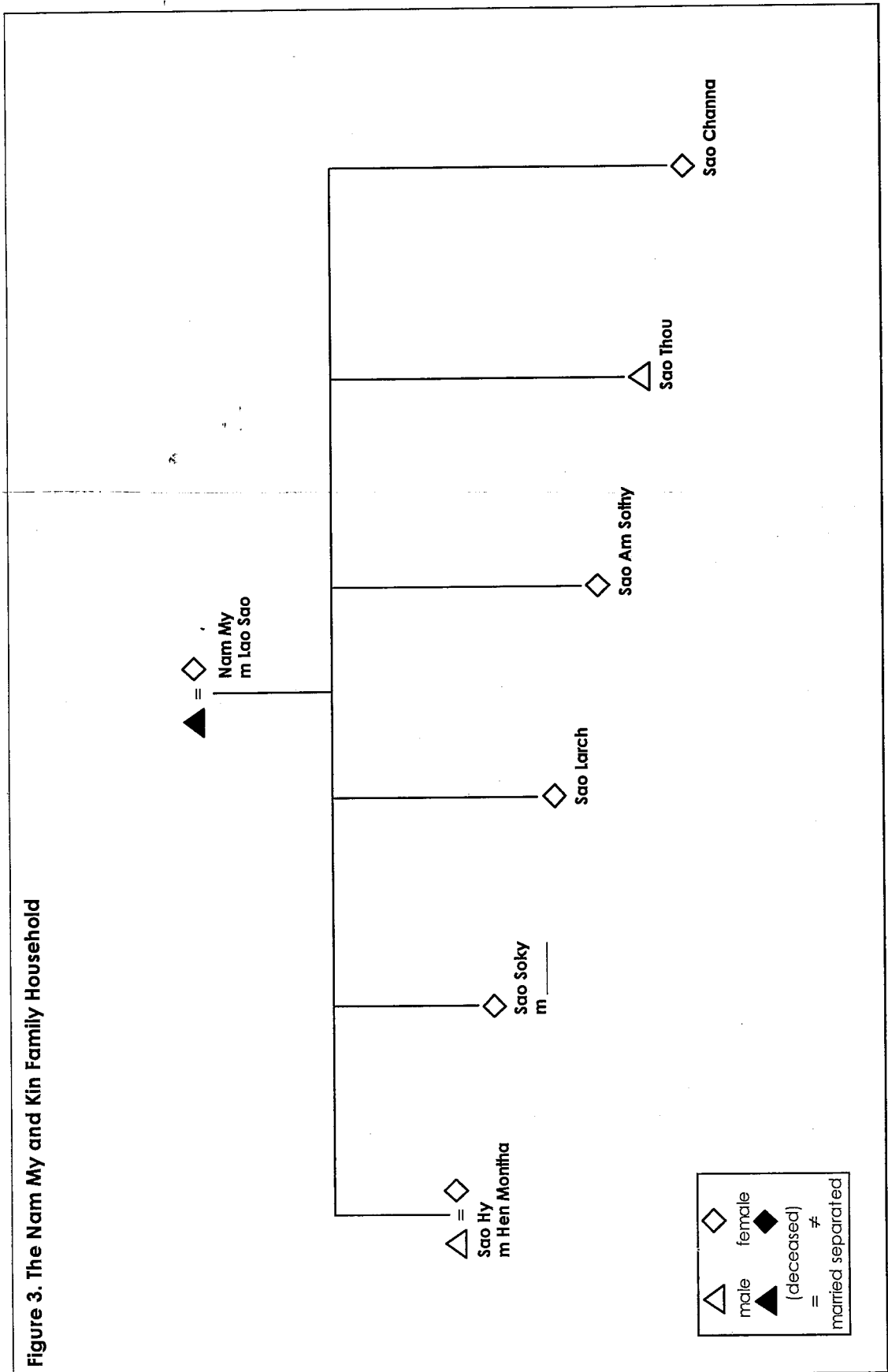
"We have few close relatives in the village now," said My. "My own relatives are from Kompong Trabek commune. We rely on ourselves and on help from our neighbours."

Landholdings

When the *krom samaki* broke up, Nam My's household received 2.0 hectares of flood-recession lowland. Household members later cleared one more hectare of lowland on their own. Of the 3.0 hectares, 0.5 hectares was unproductive, so My effectively cultivated only 2.5 hectares. None of these lands had been distributed to her children. In addition to the household's rice lands, My owned a large house lot. In mid-1996, she sold a portion of her house lot to another villager for 3.5 chis of gold to pay debts accrued in the treatment of illnesses.

My's eldest son, Sao Hy, married Hen Montha, a resident of Kompong Trabek commune, in 1979 and resettled in Babaong in 1981. With the break-up of the *krom samaki*, Hy and Montha received 0.7 hectares of lowland and 0.5 hectares of highland. They later cleared an additional 0.5 hectares of contiguous highland on their own. My provided the couple with a small house lot on the edge of the village. Neighbours helped them to build the house and, as a gesture of reciprocity, were provided with meals.

Figure 3. The Nam My and Kin Family Household



Rice Cultivation

In the 1995/96 crop season, Nam My and her married son Sao Hy cultivated their rice fields through a combination of household, exchange and hired labour. "Sometimes I am able to help my mother with her rice cultivation," said Hy. "But I, too, am poor and not able to help that much." Indeed, My relied principally on hired labour and the labour of her daughters, Sao Larch and Sao Am Sothy, to complete most of the cultivation tasks. Now approaching the end of what were considered marriageable ages, both Larch and Sothy worked diligently to support the livelihood of the household.

Nam My's cultivation—In the 1995/96 crop season, Nam My hired a tractor from Prey Veng town to plough at a cost of 1.2 chis of gold for the entire 2.5 hectares. In like manner, she hired a villager with draught animals to rake the land for a payment of six sacks of paddy rice at the harvest. Another neighbour ploughed and raked for four mornings to prepare the seedbeds, and My's daughters, Larch and Sothy, repaid the exchange by transplanting on his farm for four full days, with Larch sowing the seedbeds.

My borrowed cash from the village teacher Chhim Bunthan and hired her daughter-in-law, Hen Montha, and Long Phakdei to pull seedlings. Phakdei was the wife of Chea Chap, a villager who had lost his leg in a land mine explosion in Banteay Meanchey province while fighting the Khmer Rouge as a conscripted government soldier. Montha and Phakdei were paid by piece work at the rate of 1,000 riels for each *plon* (40 bunches) of seedlings pulled. They were not provided with meals. My spent 56,000 riels on pulling seedlings. Larch also helped to pull seedlings along with the two hired workers.

My likewise borrowed money from another villager to hire labourers from outside the village to transplant. My hired labourers at the rate of 2,500 riels per day plus two meals, and spent 170,000 riels on transplanting. Larch and Sothy helped to transplant on the household's rice fields along with the hired labourers. They also arranged to exchange labour with 15 villagers for full days of help with the transplanting.

My owned her own irrigation pump and her children, Hy, Larch and Sao Thou, together transported it to the rice fields. They used 120 litres of diesel bought at Neak Loeang for 700 riels per litre. Larch and Sothy stayed in the rice fields at night to look after the pump.

Larch and Sothy did much of the harvesting on the household's rice fields. They also arranged to exchange labour with 13 other villagers for full days of help with the harvesting. In addition, they hired labourers from outside the village for five days at 2,500 riels per day plus two meals. My hired a thresher from outside the village and paid one basket of paddy rice for every 30 baskets threshed.

To carry the rice home, Larch and Sothy borrowed water buffalo at no cost from the neighbour who had raked their fields. They then borrowed the oxcart of another neighbour for one day and agreed to work on his farm for one day in exchange.

Sao Hy's cultivation—In the 1995/96 crop season, Sao Hy hired a tractor to plough his 0.7-hectare lowland at a cost of 35,000 riels and his 1.0-hectare highland at a cost of 24,000 riels. With oxen provided by a neighbour under an exchange agreement, Hy raked his own fields in four mornings. For the use of the draught animals, Hy's wife Hen Montha repaid the exchange by transplanting on the neighbour's farm for four full days.

Hy also arranged to use the oxen of his neighbour for one morning to prepare the seedbeds. To complete the exchange, Montha transplanted on the neighbour's farm for one full day. Hy sowed his own rice fields.

Hy and Montha pulled seedlings and transplanted on their own rice fields. To help with the transplanting on the lowland, they hired three workers from outside the village for one day at 2,000 riels per day plus two meals.

Hy hired the irrigation pump of another villager at a cost of one basket of paddy rice for each of the 40 litres of diesel consumed. He also paid for the cost of the diesel.

Hy and Montha harvested their own rice fields. To help with the harvesting of the lowland, they hired five labourers for five days from outside the village at 2,000 riels per day plus two meals.

Hy hired a thresher from a Babaong villager to thresh the lowland harvest at the rate of one basket of rice for every 30 baskets threshed. Hy threshed the highland yield by hand.

Hy arranged to transport his own yield home.

Rice Production and Distribution

Nam My's household—In the 1995/96 crop season, Nam My obtained a total yield of 65 sacks of paddy rice on her 2.5 hectares of lowland (2.6 tons per hectare). She used high-yielding seed varieties and one sack of fertiliser.

From her gross yield of 65 sacks of paddy rice, she spent 38.5 sacks in debt repayments. Of this amount, 31.5 sacks were repaid for cash loans at interest rates of 10 percent per month. The loans were made based on the current gold standard to obtain cash for production expenses and the treatment of illnesses. The remaining seven sacks were repayments for rice consumption loans taken from neighbours without interest. In the last crop season, My's net production was 26.5 sacks of paddy rice.

Sao Hy's household—In the 1995/96 season, Sao Hy and Hen Montha harvested 28 sacks of paddy rice on their 0.7-hectare lowland (4.0 tons per hectare). On their 1.0-hectare highland, they harvested nine sacks of paddy rice (0.9 tons per hectare). In addition to their actual yield of 37 sacks, they estimated a loss of about two sacks to rats. The couple used high-yielding seed varieties, 20 kg of fertiliser and half a litre of pesticide.

From their total yield of 37 sacks, Hy and Montha spent 26 sacks in debt repayment. They repaid about 16 sacks for loans made to obtain cash for production expenses and to buy milled rice. Some of these loans were borrowed at the rate of 15,000 riels for one sack of rice (worth about 30,500 riels at the harvest). Another seven sacks were used to repay a long-term loan. About three sacks were used as repayment for consumption loans borrowed from neighbours and friends without interest. In the last crop season, Hy's net production was 11 sacks of paddy rice.

Other Livelihood Pursuits

Nam My's Household—Once they had finished work on their own farm, Nam My's daughters Sao Larch and Sao Am Sothy hired out their labour to others in rice cultivation. They normally earned 2,500 riels per day. Sometimes they worked in the rice fields of others for three days to repay a basket of paddy rice that they had borrowed. "My daughters know no other work than farming," My commented. Household members took care of a cow of another villager under a *provas* agreement. The cow had already given birth to one calf which now belonged to the household.

When the waters of the Mekong flooded the rice fields, My's son Thou fished in the river. His catch was generally low due to the lack of nets and gear. "Villagers cannot fish over their own rice fields near the canal," complained Larch. "The government has leased the fishing rights to a businessman from Kompong Cham province. His men patrol the river and those caught fishing in the lower parts are made to give up their gear and pay a fine."

Sao Hy's Household—Sao Hy's wife Hen Montha hired out her labour to others to pull seedlings and transplant. Montha normally received 2,000 riels per day plus two meals. After the harvest, Hy carried soil to repair dykes and dug ditches for other villagers at the rate of

2,500 riels per cubic metre of soil moved. From April to June, he earned up to 300,000 riels and used the money to buy milled rice and other food.

Hy's 15-year-old son Vanthara looked after the household's three cows and two young oxen. He also gathered firewood for cooking and fished with traps and a hook and line for household consumption. Sometimes he was able to sell 1 or 2 kg of fish to buy milled rice. Hy's 12-year-old son Sophanna caught shrimps and fish, gathered firewood, and helped to take care of the livestock. Montha gathered wild vegetables and firewood, and caught crabs, shrimps and fish. Montha also raised poultry. The household did not cultivate other crops.

In July 1996, Hy was approached by Chhim Bunthan to work on the construction of the village schools financed by the Social Fund. He earned a daily rate of 5,000 riels without meals. By November 1996, Hy had already received 123,000 riels and was owed another 137,000 riels for his work. In previous years, Hy had carried soil to upgrade the compounds at the village wats. He had received 2,500 riels per cubic metre moved and was able to carry up to four cubic metres per day. Hy had never left Babaong to do construction work. Last year, he had fished during the rainy season until his nets and boat worth about 108,000 riels were stolen late one evening.

Health and Credit

Nam My's Household—Members of Nam My's household suffered serious illnesses which left them in a situation of perennial debt. Treatment of My's chronic tuberculosis had cost the household from 300,000 to 400,000 riels per year over the past four years. In 1996, the household had sold one cow for 330,000 riels and had borrowed 60,000 riels at 10 percent interest per month to treat her illness.

In September 1996, My's youngest daughter Sao Channa was ill, and the household borrowed 40,000 riels at 10 percent interest per month from villager Kim Kla to bring her to Kantha Bopha Children's Hospital in Phnom Penh. About one month later, the household borrowed another 20,000 riels from Kim Kla, this time at 20 percent interest per month, to buy Channa medicine and to bring her home after her 15-day stay in the hospital.

In November 1996, Sao Larch was ill and the household spent 75,000 riels on her treatment, including nine injections given by Chea Ratha at a cost of 25,000 riels.

As their rice stocks depleted, the household borrowed paddy rice without interest for consumption purposes with arrangements to repay the loans at the 1997 harvest. By November 1996, they had already borrowed more than six sacks of paddy rice for food, including three sacks from Kim Kla.

Sao Hy's Household—Members of Sao Hy's household had not suffered serious illness that needed treatment at hospitals or clinics. When they were ill they bought medicine from a health worker who lived nearby.

To obtain cash, Hy and Hen Montha normally borrowed from neighbours and agreed to repay one sack of paddy rice at the harvest for every 15,000 riels received. At the end of the 1995/96 crop season, they had repaid several sacks of paddy rice under this arrangement. By November 1996, they had not had to make further loans of this kind because of Hy's earnings from the school construction. They had, however, borrowed one sack of UREA fertiliser for the forthcoming rice cultivation from the Mennonite Central Committee (MCC) input scheme at 4 percent interest. They had no expectation that they could borrow from the village credit scheme. By November 1996, the household had borrowed 12 baskets of paddy rice from neighbours without interest to be repaid at the next harvest.

Pchum Ben

During the Pchum Ben ceremonies, Nam My's household usually contributed 2,000 to 3,000 riels to each of two food preparations at the village wats. They also contributed 200 to 500 riels plus 0.5 kg of milled rice to the monks each night during the two-week festival.

Every year around Pchum Ben, My's married daughter Sao Soky came from Phnom Penh to visit the family in Babaong. She normally gave her mother 2,000 to 5,000 riels plus some fruit.

Sao Hy's household spent about 20,000 riels on Pchum Ben preparations. They contributed 2,500 riels to each of two food preparations at the wats. They also contributed 200 riels and 0.5 kg of milled rice to the monks every night during the festival.

Case Four

The Story of Bo Tra and Kin

In 1996, Bo Tra was 62 years old and partly paralysed on one side of his body as the result of a stroke. He lived in Bābaong with his 53-year-old wife, Uy Sambath, and their three unmarried children: an 18-year-old son, Bo Sao; a 16-year-old daughter, Bo Plok; and a 14-year-old son, Bo Chhun. Their five elder children, all married daughters, lived in separate households: 33-year-old Bo Yeng, 30-year-old Bo Visaly, 27-year-old Bo Ro euth, 23-year-old Bo Roeun, and 20-year-old Bo Vanthy. Yeng and Roeun lived in Babaong with their families (see Figure 4 overleaf).

“My family has become poor since my illness,” said Tra with some difficulty. “I have been to several doctors and have spent a lot of money, but still I have not been cured.” An active person for most of his life, his chronic illness and reliance on others was difficult for him to accept.

Landholdings

In 1996, Bo Tra and Uy Sambath cultivated 1.4 hectares of lowland and one plot of highland. This was what remained of the landholdings they had received at the end of the *krom samaki* period. Although they had not sold any rice land, they had given small parcels to several of their married daughters. And in their own right, some of Tra’s married daughters had acquired land for rice cultivation.

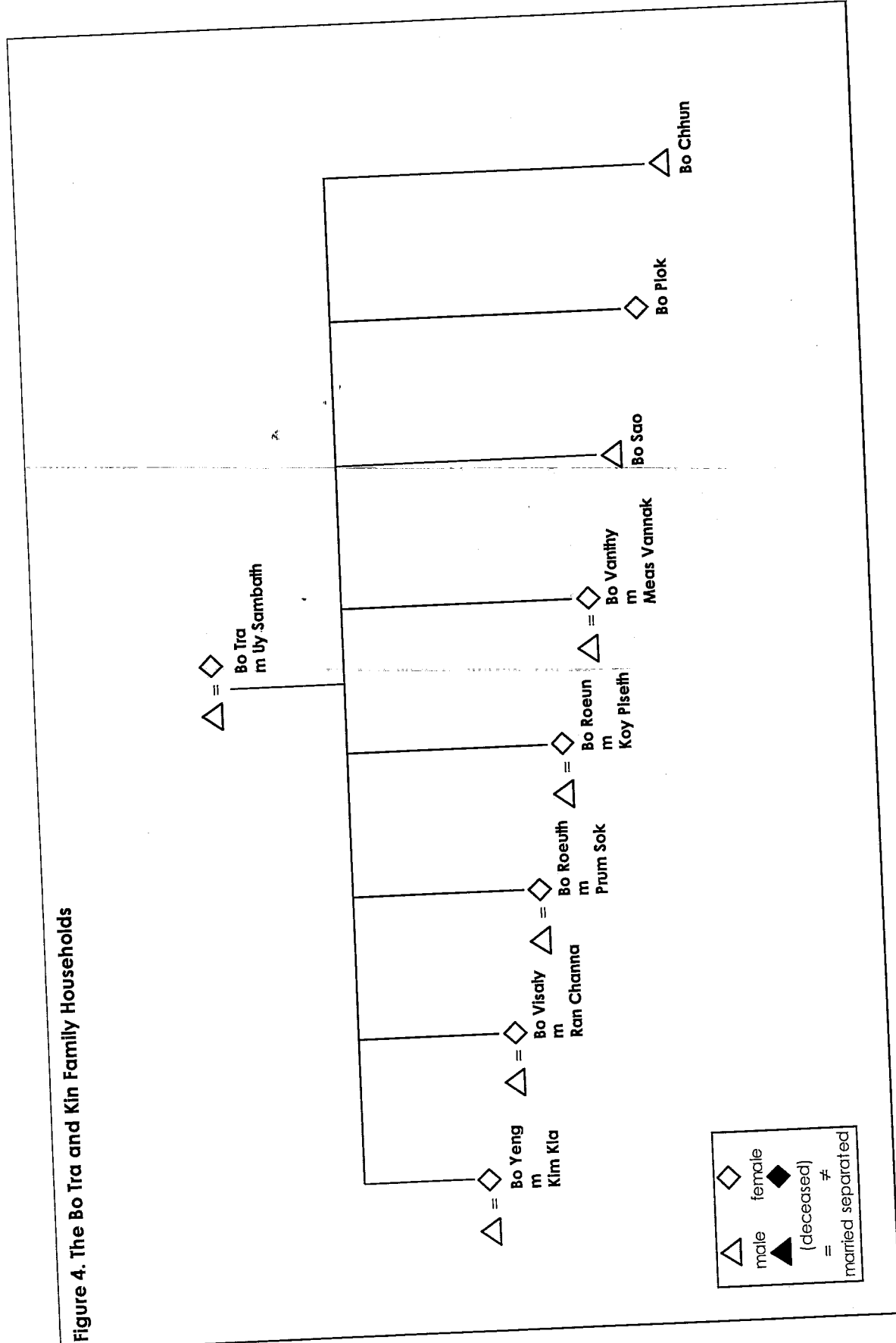
As a married couple Bo Yeng, and her husband, 38-year-old Kim Kla, received about 0.5 hectares of lowland and half a plot of highland at the break-up of the *krom samaki*. In 1995, they purchased another 0.5 hectares of lowland from a Babaong widow for four chis of gold from sales of livestock. The woman reportedly needed the money to pay debts from drinking and gambling.

Bo Visaly received a plot of lowland in Babaong from her parents as an inheritance. In 1994, she sold the land back to her mother and father for two chis of gold. This lowland plot was part of the 1.4 hectares now cultivated by her parents. Visaly lived with her husband and children in a nearby village.

Bo Ro euth received 0.1 hectares of lowland in the village from her parents as an inheritance. In 1995, she sold the land to her younger sister, Bo Roeun, for two chis of gold to treat her daughter’s illness.

Bo Roeun obtained 0.2 hectares of lowland from her parents and purchased another 0.1 hectares from her older sister Ro euth. Roeun’s husband, 24-year-old Koy Piseth, had migrated to Babaong from Ba Phnom district of Prey Veng province and had no land inheritance of his own.

Figure 4. The Bo Tra and Kin Family Households



Bo Vanthy had not received any land inheritance from her parents. Vanthy lived in Kandal province with her husband, an only son who had inherited land from his parents.

Neither Tra nor his married daughters had cleared public land in the village that had been opened up by the state for private cultivation, despite the fact that his sister Bo Leap was married to the village chief Nuon Pheng. Tra's daughter Roeun was, however, allowed to live temporarily on a house lot owned by Leap without payment.

Rice Cultivation on Own Landholdings

For years, Bo Tra had ploughed and raked his own rice fields. After his stroke, he had asked his sons-in-law, Kim Kla and Koy Piseth, to plough and rake instead. In the last crop season, Tra's 18-year-old son Bo Sao was strong enough to plough and rake on the household's rice fields. Other tasks were undertaken by Tra's wife Uy Sambath and their daughter Bo Plok. Married daughters Bo Yeng and Bo Roeun worked on their parents' farm, as did their husbands, without requiring exchange or payment. In previous years, Sambath had exchanged labour with villagers to accomplish activities such as transplanting and harvesting. Now Sambath hired farm labourers to assist her with these tasks. In the 1995/96 crop season, rice cultivation patterns on the lands of Tra and Sambath and their daughters, Yeng and Roeun, were as follows:

Bo Tra's cultivation—Bo Tra's son Sao ploughed and raked the plot of highland and the 1.4-hectare lowland with his parents' oxen. It took him four mornings to complete the highland and 16 mornings to finish the lowland. It took him three mornings in all to prepare the seedbeds. Tra's wife Sambath did the sowing.

Sambath pulled seedlings with help from Sao and her daughter Plok. Sambath also transplanted the highland with help from Plok and married daughters Yeng and Roeun. On the lowland, Sambath transplanted with Plok and hired farm labourers to help at a total cost of about 32,500 riels plus meals. Yeng and Roeun did not help with the lowland transplanting as they were busy transplanting on their own fields.

Known for his skills as a mechanic, Tra had years ago repaired an irrigation pump discarded from the Khmer Rouge period. The pump was used to irrigate the household's rice fields. Sao carried the machine to the irrigation canal with assistance from Yeng's husband Kim Kla and Roeun's husband Koy Piseth. In the last crop season, the household used 90 litres of diesel for the pump.

Sambath and Plok, harvested the highland by themselves. They also harvested the lowland with help from hired labourers at a total cost of about 25,000 riels plus meals. Roeun, helped them to harvest as well, while Sao carried both harvests to the threshing area.

Sao did the threshing by hand with some help from Kla and Piseth. Sao also transported the yield home with his parents' oxcart.

Bo Yeng's cultivation—In the 1995/96 crop season, Bo Yeng's husband Kim Kla ploughed and raked the couple's half plot of highland and two parcels of lowland with oxen borrowed from Bo Tra and his own mother. Kla and Yeng prepared the seedbeds and Kla did the sowing.

Yeng, Kla and their 15-year-old daughter Savan pulled seedlings and transplanted. Labourers from outside the village were hired to help with the lowland transplanting at a total cost of about 22,500 riels. The labourers slept at their house and were provided three meals a day. Kla irrigated the fields with his own pump.

Yeng and Savan did the harvesting. Labourers from outside the village were hired to assist with the lowland harvesting at a total cost of about 6,000 riels plus meals. Kla carried

the bundles of harvested rice to the threshing area. The lowland rice was threshed by machine at the standard rate of one basket for every 30 threshed.

Kla borrowed an oxcart from his neighbour and used Tra's oxen to carry the lowland paddy rice home. Kla had lent money to his neighbour without interest for the purchase of the oxcart and so was able to use the cart without payment. By way of exchange, Kla helped to thresh the rice of his neighbour even though it was not demanded of him.

Bo Roeun's cultivation—In the 1995/96 crop season, Bo Roeun's husband Koy Piseth ploughed their 0.3-hectare lowland with oxen and a plough borrowed from her father Tra. Piseth raked the lowland with the help of exchange labour provided by four villagers and their oxen. Roeun repaid each morning of raking with one full day of transplanting on the farms of these four men. Piseth prepared the seedbed and Roeun did the sowing.

Roeun pulled seedlings with help from her husband and her mother Uy Sambath. In previous years, Roeun's younger sister Plok had helped to pull seedlings and transplant as well. In the last crop season, Roeun transplanted with assistance from her husband. "In Babaong, men do not usually help their wives with transplanting," said Roeun. "They consider it women's work and warn husbands who have migrated to Babaong from other villages not to transplant this year, for they will have to transplant next year, and then they will have to transplant forever."

To complete the transplanting quickly, Roeun arranged to exchange and hire labour in addition to her own work. Roeun agreed to exchange one day of her labour for one day of transplanting from each of five villagers. She hired an additional five labourers for one day apiece at 2,000 riels plus two meals. Roeun and Piseth borrowed her father's irrigation pump and spent about 23,000 riels for 30 litres of diesel to irrigate their fields.

Roeun harvested herself for one week. She also hired two labourers from outside the village for two days at 2,000 riels per day plus three meals. Piseth carried the bundles of harvested rice to the threshing area and threshed the paddy himself by hand. Piseth borrowed Tra's oxcart to carry the yield home.

Rice Production on Own Landholdings

In the 1995/96 crop season, Bo Tra's household harvested two sacks of paddy rice on the one plot of highland. They obtained 63 sacks of paddy rice on the 1.4-hectare lowland (4.5 tons per hectare). They used high-yielding varieties of seed plus one sack of fertiliser.

In the last crop season, Bo Yeng and Kim Kla harvested two baskets of paddy rice on their half plot of highland, 17 sacks of paddy rice on their 0.45-hectare lowland parcel, and 20 sacks of paddy rice on their recently purchased 0.5-hectare lowland parcel. The combined production on the lowland parcels was 3.9 tons per hectare. They used high-yielding varieties, two sacks of fertiliser, and half a bottle of pesticide.

In the last crop season, Bo Roeun and Koy Piseth harvested 12 sacks of paddy rice on their 0.3-hectare lowland (4.0 tons per hectare). They used high-yielding varieties.

Rice Production on Borrowed and Leased Landholdings

In the 1995/96 crop season, Bo Yeng and Kim Kla cultivated one plot of his mother's highland in another village without sharing the harvest. They harvested four sacks of paddy rice on this plot.

In the last crop season, Bo Tra's second daughter Bo Visaly, now living in a nearby village, leased a parcel of rice land for five sacks of paddy rice. Unfortunately, Visaly lost the entire anticipated yield of 20 sacks of paddy rice to rats. Despite the rice failure, she had to pay the owner more than two sacks of paddy rice as rent from her own small rice field.

In the last crop season, Bo Roeun leased a parcel of land from her cousin, a daughter of the village chief. From a gross harvest of eight sacks of paddy rice, she paid three sacks in production expenses, two sacks in rent and retained three sacks as her own share.

Rice Repayments, Sales and Credit

Bo Tra's household—Bo Tra's household spent a small portion of their total yield of 65 sacks of paddy rice in 1995/96 on production expenses. In addition, 30 sacks were used to repay loans borrowed to treat Tra's illness. The household borrowed cash in 15,000-riel amounts and agreed to repay each loan with one sack of paddy rice at the harvest. With one sack of paddy rice worth about 30,500 riels at the harvest, the interest rate was more than 100 percent. Before the last crop season, Tra's household had borrowed about 450,000 riels (the equivalent of about 10 chis of gold) for medical expenses. In real terms, with interest on loans factored in, they had spent twice this amount. Tra had been treated by doctors in Neak Loeang and at the provincial hospital and even by a French doctor in Prey Veng town.

When Tra and Uy Sambath lacked rice for consumption, they borrowed from their daughter Bo Yeng and from Sambath's nieces and nephews without interest. Despite their rice debts, the household's yields were large enough to minimise the need for consumption borrowing. At times, their married children and relatives provided them with fresh fish and cooked food.

Bo Yeng's household—From their combined harvests of 41 sacks of paddy rice, Bo Yeng and Kim Kla deducted production expenses. They then sold 10 sacks to a rice mill owner in Neak Loeang for 30,500 riels per sack. To transport the paddy rice to Neak Loeang they paid another villager a total of 10,000 riels in tractor and trailer fees. In November 1996, they still retained 10 sacks of paddy rice for consumption, sufficient to feed the couple and their four daughters until the next harvest in April.

Although Yeng and Kla did not borrow rice, they sometimes borrowed cash from Kla's uncle in Neak Loeang in amounts ranging from 10,000 to 100,000 riels without interest. Some of this money was loaned to other villagers with interest. The couple had not borrowed from the village credit scheme. "We do not have close relations with the village chief," explained Kla, even though the chief was the uncle of his wife.

Bo Roeun's household—From the 12 sacks of paddy rice harvested on their own rice fields, Bo Roeun and Koy Piseth deducted production expenses. From what remained, plus the three sacks earned as their share from the leased parcel, Roeun sold five sacks to pay for the land she had purchased from her sister Bo Roeth. In November 1996, the childless couple still had five sacks of paddy rice for consumption, a quantity large enough to last them to the next harvest.

Roeun had not borrowed paddy or milled rice, but she had borrowed 10,000 riels without interest in September 1996 from her sister Yeng for Pchum Ben preparations. Roeun also had lent 10,000 riels without interest to a neighbour earlier in the year.

Other Livelihood Pursuits

Bo Tra's household—Bo Tra's 16-year-old daughter Plok hired out her labour to others in rice cultivation. She earned 30,000 riels from transplanting in a crop season and used the money to buy second-hand clothes and sandals.

Tra raised one cow and two oxen. In recent years, his supply of livestock had diminished. He had given his each of married daughters one cow to raise. In 1994, Tra had sold two cows to pay for medical expenses, and in 1996 considered selling a third in a desperate attempt to cure his affliction.

Tra's household members did not plant vegetables on their house lot nor did they fish. In previous years, they had gathered and sold firewood, but now wood was scarce and was collected only for their own needs.

Bo Yeng's household—No-one in Bo Yeng's household hired out their labour to others in rice cultivation. Kim Kla caught fish with his nets for home consumption and sometimes for sale. Household members raised livestock and poultry. They did not grow vegetables or other crops. Yeng's 15- and 13-year-old daughters Kla Savan and Kla Chin looked after the livestock and gathered firewood for the household.

Kla worked as a carpenter when the rice season was over. In Neak Loeng he repaired houses for 7,000 riels per day without meals, and stayed with his uncle. In Babaong, he helped to build the village school buildings financed by the Social Fund. As an experienced carpenter and supervisor, he earned 7,000 to 10,000 riels per day without meals.

Bo Roeun's household—Neither Bo Roeun nor Koy Piseth hired out their labour to others in rice cultivation. Roeun raised one ox that her parents had given her, and had her 14-year-old brother Bo Chhun take care of it for her. For his efforts, Roeun gave him 5,000 riels a year plus school clothes. Roeun also raised hens and recently had sold six to the village chief for 30,000 riels to feed the research team. Roeun gathered firewood for home use.

Piseth borrowed other villagers' boats and caught fish with his own net for household consumption. Roeun and Piseth used some of the catch to make *prahoc* (fish paste). They also gave some fish to Roeun's parents.

In 1996, Piseth worked on the construction of the school buildings financed by the Social Fund. During the first construction period, he earned 5,000 riels per day without meals for a total of 80,000 riels. During the second period, he worked for 10 days and had yet to receive his pay. Piseth had never left the village to work on construction.

Pchum Ben

During the Pchum Ben festival in September-October, Bo Tra's household contributed 3,000 riels to each of four food preparations at the two village wats. Members of the wat committees came to the house to collect the money. The household also contributed 200 to 500 riels plus 0.5 kg of rice to the monks each night during the ceremony. With their own preparations, the household usually spent 80,000 riels on Pchum Ben.

Bo Yeng's household contributed 3,000 riels to each of three preparations at the wats at Pchum Ben. With their own preparations and the money they gave to their parents, they spent about 50,000 riels during the festival.

In 1996, Bo Roeun borrowed 10,000 riels from her sister Yeng for Pchum Ben. In addition to her contributions to the wats and her own preparations, she gave her parents 2,000 riels and some cakes, and shared cooked food with a good friend and neighbour.

Case Five

The Story of Bun Samnang and Kin

1) The Households of Bun Samnang and Phay Visal

Bun Samnang and Hun⁴Krisna were married in 1965. Both were born and raised in Babaong. Forced to evacuate the village in 1972 by the Khmer Rouge, they returned in 1975 to live under the collectivism of the Khmer Rouge regime. When the government of the People's Republic of Kampuchea was installed in 1979, Samnang and Krisna resettled on their original house lot and cultivated rice as members of the *krom samaki*.

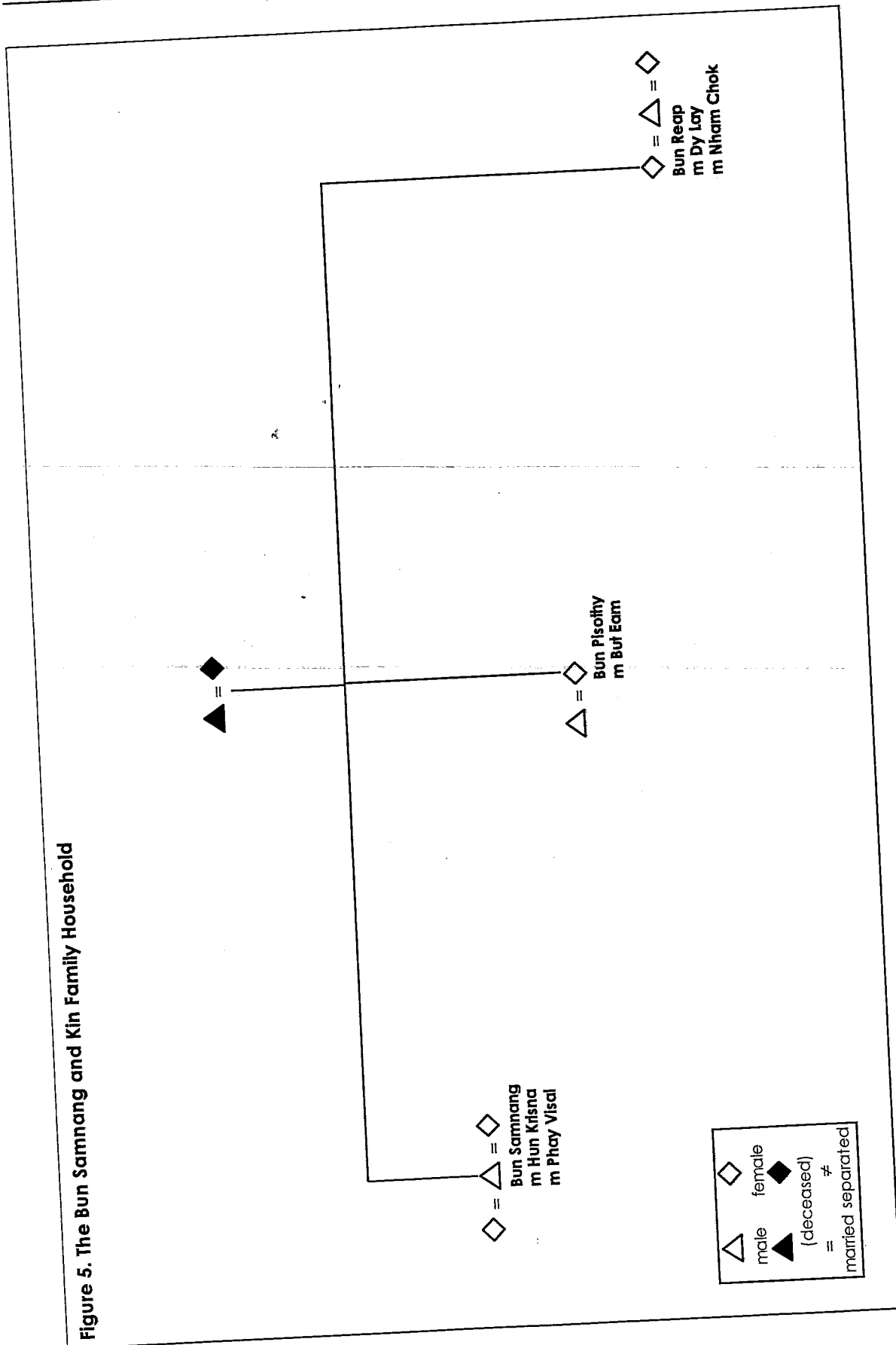
The four sacks of paddy rice that the household received as its share from the collective cultivation of the *krom samaki* was inadequate for its consumption needs. To supplement the household's food supply, Samnang and Krisna smoked and salted fish that Samnang caught in the Mekong River. Krisna then travelled to inland villages on a borrowed bicycle to exchange the processed fish for milled rice and sweet potatoes. At times, Samnang gathered firewood and Krisna again borrowed the bicycle to take the wood for sale in markets of Prey Veng or Neak Loeang.

In the 1980s, Samnang avoided conscription into the army because of his advanced age. Nevertheless, he did provide alternative service as a Babaong security guard and worked closely with the commune and village chiefs. Looking back on those years, Krisna reflected on how her husband's appointment as a security guard enabled him to develop a relationship with Phay Visal, his second wife in the village. "The wives of the security guards knew that their husbands had to go around the village at night," explained Krisna. "So they did not control them."

Phay Visal was a Babaong resident whose first husband had been killed by the Khmer Rouge in the aftermath of the revolutionary takeover. He had been taken away to be re-educated and had never returned. Visal lived through the Khmer Rouge period in the village with her two sons. Later, as a member of the *krom samaki*, she received three sacks of paddy rice as the share for her household and supplemented this by fishing. She also borrowed rice without interest from her neighbours. In 1986, her eldest son was conscripted into the army and, one year later, was killed fighting in Siem Reap. By then, Visal had already begun her relationship with Samnang.

In 1996, Samnang and Krisna were both 51 years old and lived in Babaong with their four surviving children: a 15-year-old son, Bun Nga; a 13-year-old son, Bun Chetra; a 12-year-old son, Bun Samkol; and a nine-year-old daughter, Bun Makara. In 1996, Visal was 50 years old and lived in the village with her three children: a 20-year-old son, Koy Kamsoth, from her first husband; a nine-year-old daughter, Bun Ram, from Bun Samnang; and a six-year-old son, Bun Pros, from Bun Samnang.

Figure 5. The Bun Samnang and Kin Family Household



Landholdings

Bun Samnang and Hun Krisna received two hectares of lowland from the *krom samaki* distribution and cleared a contiguous 0.5-hectare parcel of lowland in 1988. "The land that we cleared was neglected," said Krisna. "Villagers who were able to clear more land after the *krom samaki* usually had connections with the authorities." At the dissolution of the *krom samaki*, Samnang and Krisna also received a 0.4-hectare parcel of relatively unproductive highland. In 1991, they purchased a 0.4-hectare parcel of lowland near the irrigation canal for one chi of gold.

Phay Visal received 0.5 hectares of lowland and 0.15 hectares of highland at the break-up of the *krom samaki*. Although she had not cleared more land for cultivation, she had reclaimed her original house lot. After the 1995/96 crop season, Visal purchased another small plot of highland from an elderly woman in the village for one chi of gold.

Rice Cultivation

Bun Nga and Hun Krisna's cultivation—In the 1995/96 crop season, Bun Samnang and Hun Krisna cultivated their one parcel of highland and their 2.9 hectares of lowland.

Samnang and his son Nga ploughed and raked both the highland and lowland parcels. They used Samnang's own water buffalo and spent one morning ploughing the drought-prone highland and 12 mornings ploughing the more productive lowlands. They spent an identical number of mornings raking the same parcels. Samnang and Nga likewise ploughed and raked for a total of three mornings to prepare the seedbeds.

Krisna sowed the seed and pulled seedlings with Nga and her son Chetra. Krisna and Nga transplanted the one highland plot and the lowland parcels with help from Chetra and Samnang. Krisna also hired labourers from outside the village to help transplant the lowland parcels. She paid the labourers 2,000 riels per day plus three meals.

Samnang owned his own irrigation machine and carried it to the fields with Nga. Although they did not have to pay rental fees they did have to purchase their own diesel fuel.

In the 1995/96 crop season, the unproductive highland plot produced no yield for lack of rain. Krisna and Nga harvested the lowland parcels with assistance from Chetra and Samnang. Krisna also hired labourers from outside the village to help harvest these parcels at 2,000 riels per day plus three meals. In the 1995/96 crop season, Krisna spent 250,000 riels in wages for transplanting and harvesting.

Samnang, Nga and Chetra carried the bundles of harvested rice to the threshing area. Samnang hired a machine to thresh the rice and spent about two sacks in threshing fees at the rate of one basket for every 30 baskets threshed. Samnang and his sons also threshed some of the rice by hand. Samnang transported the yield home with his own oxcart and water buffalo.

Phay Visal's cultivation—In the 1995/96 crop season, Phay Visal cultivated both her 0.5-hectare lowland and her 0.2-hectare highland.

Bun Samnang ploughed and raked Visal's rice fields using one water buffalo that she owned and one water buffalo that she borrowed from a distant cousin in the village. Her cousin likewise borrowed her water buffalo when he ploughed and raked. Samnang never used his own draught animals to cultivate Visal's fields.

It took Samnang seven mornings to plough Visal's lowland and two mornings to plough her highland. It also took him four mornings to rake the lowland and one morning to rake the highland. Visal's son Kamsoth by her first husband had a deformed leg and was unable to plough and rake. In previous years, before she could rely on Samnang's help, Visal had exchanged her own labour, pulling seedlings and transplanting for full days on the farms of others, to ensure that mornings of ploughing and raking would be accomplished on hers.

In the last crop season, Visal sowed and pulled seedlings on her rice fields. Visal and Kamsoth, with occasional help from Samnang, transplanted both the highland and the lowland. The lowland was transplanted with help from 10 villagers who worked as exchange labourers. Kamsoth worked on the farms of these villagers to reciprocate the exchange.

In the 1995/96 season, Samnang helped Visal irrigate her fields with his pump. Visal paid the cost of the diesel. Some years before, Visal had hired a pump at a rate of one basket of paddy rice for each litre of fuel consumed. Prior to this, she had irrigated her fields with a *rohat* (pedal-operated wheel).

Visal and Kamsoth harvested both the highland and lowland. Before her son was old enough to help her, she had exchanged labour to finish the harvesting. In the last crop season, Samnang carried the harvested bundles to the threshing area.

Samnang threshed some of the harvest by hand. Visal also hired a machine to thresh the paddy rice at a cost of one basket for every 30 threshed. With an oxcart borrowed from her neighbour and with her own and her cousin's water buffalo, Samnang transported the yield home.

"Since Samnang has helped with the rice cultivation, much of the burden has been reduced," said Visal. "He helps to plough, to rake, to operate the irrigation pump, and to carry the yield home. Before I worked very hard just to have enough rice to eat."

Rice Production and Distribution

Bun Samnang and Hun Krisna's household—In the 1995/96 crop season, Bun Samnang and Hun Krisna harvested 79 sacks of paddy rice on their 2.9-hectare lowland (2.8 tons per hectare). They used high-yielding varieties and fertiliser.

From the 79 sacks, they spent more than 15 sacks to repay loans borrowed to cover production costs such as transplanting, harvesting and diesel. They had borrowed cash from several people in amounts of 25,000 riels to be repaid at the harvest with one sack of paddy rice worth about 30,500 riels. The household also repaid three sacks of paddy rice borrowed without interest as consumption loans.

At the end of the 1995/96 crop season, Samnang and Krisna purchased a rice threshing machine for 2.9 million riels. To finance this purchase they sold 30 sacks of paddy rice at 300 riels per kg for 900,000 riels. They sold two female water buffalo for 940,000 riels. They also borrowed 4.5 chis of gold from relatives without interest and 0.5 chis of gold at 10 per cent interest for two months.

Phay Visal's household—In the 1995/96 crop season, Phay Visal obtained a total harvest of 20 sacks of paddy rice on her 0.5-hectare lowland and 0.2-hectare highland. The combined yield amounted to 3.1 tons per hectare. She used high-yielding varieties and fertiliser.

From the total yield, she spent two sacks of paddy rice worth about 61,000 riels to repay cash loans of 40,000 riels she had taken out before the harvest to finance production. She repaid rice consumption loans borrowed from the village teacher Chhim Bunthan and his wife without interest. Visal also sold five sacks of paddy rice for 150,000 riels towards the purchase of a small plot of highland.

Other Livelihood Sources

Bun Samnang and Hun Krisna's household—Nga and Chetra, the older sons of Bun Samnang and Hun Krisna, gathered firewood and wild vegetables. They also looked after the household's three mature and one young water buffalo.

Apart from rice cultivation, Samnang fished with a net and shared his catch with both families. "I used to quarrel with Samnang about Phay Visal," said Hun Krisna. "But it didn't help. He never became violent but he kept on visiting her."

Phay Visal's household—Phay Visal's son Kamsoth hired out his labour transplanting and harvesting and earned about 60,000 riels in the previous crop season. In the months of June and July, he also bought fish at the canal and sold them around the village. He earned from 1,000 to 1,500 riels per day or the equivalent in milled rice.

Visal grew bananas and coconuts around her house. She sold the coconuts for 300 riels each or, at times, exchanged them for fish to process into *prahoc*. Although she normally bought vegetables from village vendors, on occasion she gathered wild plants. Her children helped her to gather firewood and to take care of their one water buffalo. As a consequence of her son's death in the army, Visal received 8,000 riels per month from the government.

2) The Household of Bun PISOthy

Bun PISOthy, the 43-year-old sister of Bun Samnang, was married to 45-year-old But Eam. PISOthy lived in Babaong with her family near the home of Samnang and Hun Krisna. PISOthy and Eam had five children: a 14-year-old son, Eam Sovuthea; a 10-year-old daughter, Eam Malea; a nine-year-old daughter, Eam Sum; a five-year-old daughter, Eam Sruoch; and a two-year-old daughter, Eam Chhay.

Landholdings and Rice Cultivation

Bun PISOthy and But Eam received 0.5 hectares of lowland at the break-up of the *krom samaki* and cleared another hectare for a total of 1.5 hectares of lowland. The couple also received a 0.7-hectare plot of relatively low-yielding highland at the end of the *krom samaki* period and a more productive 0.7-hectare plot of highland near the irrigation canal from Eam's father.

In the 1995/96 crop season, PISOthy and Eam cultivated their rice fields primarily through household and exchange labour. They hired labour only for harvesting and paid rental fees only for the use of an irrigation pump.

Eam ploughed and raked with his own oxen. It took him three mornings to plough the often dried-up highland, three mornings to plough the more fertile highland, and about 15 mornings to plough the lowland. It took him an equal number of mornings to rake the same parcels. Eam ploughed and raked for three mornings to prepare the seedbeds.

PISOthy sowed the seeds and, with some help from Eam, pulled the seedlings. Eam carried the seedlings to the fields. PISOthy transplanted the three parcels herself with six days of help from exchange labourers. It took four to five days to transplant each of the two highland plots, and about 15 days to transplant the lowland. PISOthy repaid the work done by the labourers herself.

Eam rented the pump of his half-brother, Sey Top, to irrigate the lowland at a cost of seven baskets of paddy rice for every 10 litres of fuel consumed. Eam had helped Top to plough without payment and was given a discount on the use of his pump. PISOthy was not able to use the pump of her brother Samnang, because her lowland parcel was too far from his. The couple spent 42 baskets of paddy rice plus 60 litres of fuel in irrigation costs.

PISOthy harvested the two highland plots by herself. The unproductive plot with less yield took about three days to harvest. The plot near the canal took about six days to finish. PISOthy harvested the lowland with help from hired labourers. She paid the labourers 2,000 riels per day plus two meals. It took about seven days to complete the lowland harvest.

"When I work in the fields I get up early and prepare food for the children," said PISOthy. "I do not bring them to the fields. My daughter Sum takes care of the younger ones and when her sister Malea returns from school she helps out, too."

Eam carried the bundles of harvested rice to the threshing area and threshed the rice by hand with his 14-year-old son Sovuthea. Eam borrowed Samnang's oxcart and used his own oxen to transport the paddy rice home.

Rice Production and Distribution

In the 1995/96 crop season, Bun PISOthy and But Eam harvested 51 sacks of paddy rice on their 1.5-hectare lowland (3.4 tons per hectare). They harvested about five sacks on the 0.7-hectare highland near the canal and, due to lack of rain, less than three sacks on the more barren 0.7-hectare highland. They used high-yielding seed varieties and applied fertiliser and pesticide on the lowland as well as on the highland near the canal.

From the total production of 59 sacks of paddy rice, the couple spent 13 sacks for production expenses and set aside another four sacks for seeds. At the end of the last crop season, they had no consumption loans to repay. By November 1996 they had, however, borrowed two sacks of paddy rice without interest to be repaid at the next harvest. One sack was borrowed from PISOthy's brother Samnang, and one from Eam's half-brother Top.

Other Livelihood Pursuits

But Eam used to fish regularly, but recently his son Sovuthea had done more fishing with the household net and traps. During the flood of September 1996, Sovuthea had earned about 60,000 riels selling fish. Earlier in the year he had given his mother more than 100,000 riels from fish earnings. After the harvest in May 1996, Bun PISOthy made *prahoc* and exchanged it for paddy rice in nearby villages.

Sovuthea took care of the household's livestock. They had four cows, two oxen, and one water buffalo. Sovuthea also carried water for household use. PISOthy grew two coconut trees on their house lot and kept the coconuts for home consumption. She gathered firewood and sometimes vegetables. Normally she bought vegetables from village vendors.

Health

In 1996, Bun PISOthy paid 20,000 riels to the village nurse Chea Ratha to treat her for an illness. The year before she had paid one chi of gold to the Peam Ro district nurse to treat But Eam for cholera. The children had not been ill.

3) The Household of Bun Reap

Bun Reap, the 37-year-old sister of Bun Samnang and Bun PISOthy, was the second wife of 41-year-old Dy Lay. Years earlier, as a young woman in Babaong, she had been his first and only wife. In 1975, local officials of the Khmer Rouge regime had arranged a marriage between Reap and Dy Lay. The young couple had three children in successive years, though only one daughter had survived the regime. Lay himself was jailed for two months by the Khmer Rouge in 1978 with 98 other villagers. Only 14 people, including Lay, survived.

In 1979, soon after the People's Republic of Kampuchea was established, Reap and Lay divorced. In 1981, Lay started to live with Nham Chok, a resident of Babaong, and together they had four children. Reap never remarried. About four years ago, much to the chagrin of her relatives, Reap began to live as the second wife of Lay. In 1996, Reap's only living child

was a three-year-old son from this second liaison. Her daughter born of their earlier relationship had died the year before at the age of 16.

Reap worked in the *krom samaki* as the head of her household. Nonetheless, her share of the rice harvest was insufficient for her needs and she borrowed from relatives and neighbours to offset the deficit. When cooperative members decided to work their own lands, she received 0.5 hectares of lowland, two plots of highland near the canal, and one plot of highland at the edge of the flood waters. She inherited her house lot, close to that of Samnang and PISOthy, from her parents. For years Reap cultivated her rice fields with assistance from the households of Samnang and Krisna and PISOthy and Eam. Lay had helped her in rice cultivation tasks only recently.

Rice Cultivation

In the 1995/96 crop season, Bun Reap cultivated both her highland and lowland parcels. She borrowed water buffalo from her brother Bun Samnang, and Dy Lay ploughed and raked. The ploughing took one morning on the distant highland, two mornings on the highland near the canal, and five mornings on the lowland. The raking took one morning on the distant highland, three mornings on the highland near the canal, and six mornings on the lowland. In previous years, Bun PISOthy's husband But Eam and Samnang's oldest son Bun Nga had helped her to plough and rake.

Reap sowed the seed. She also pulled seedlings with some help from Lay. In previous years, PISOthy and Nga had helped her.

Reap transplanted her own rice fields with help from hired labour and Samnang's wife Hun Krisna. She transplanted the upper highland by herself in five days. She transplanted the highland near the canal in three days with help from two labourers hired for three days at 2,000 riels per day plus two meals. She transplanted the lowland in 15 days with help from two labourers hired for 10 days at the more competitive rate of 2,500 riels per day plus two meals. Krisna helped Reap transplant the lowland for two days without payment or exchange. Reap sold coconuts worth 10,000 riels and chickens worth 27,000 riels to help pay for transplanting costs.

"When I worked in the rice fields, I bought my son and Lay looked after him," explained Reap. "Lay was able to help because his work with the other family was already completed."

Reap's brother Samnang used his pump to help her irrigate her lowland and her highland near the canal. In the last two crop seasons, Reap had paid for the cost of the diesel herself. In previous years, Samnang had paid for the fuel.

Reap harvested the two highland parcels herself. It took two days to harvest the distant highland and five days to harvest the highland near the canal. Reap harvested the lowland in seven days with help from hired labourers. She hired one person to work for four days and four persons to work for two days at a rate of 2,500 riels per day plus two meals. Reap borrowed cash to pay the wages of the harvesters. For every 20,000 riels she borrowed, she had to repay one sack of paddy rice at the harvest worth 30,500 riels.

Lay carried the bundles of harvested rice to the threshing area. Reap and Lay threshed the rice with a threshing machine owned by a relative of Lay. They did not pay a rental fee. Lay transported the rice to Reap's house with Samnang's oxcart and water buffalo.

Rice Production and Distribution

In the 1995/96 crop season, Bun Reap obtained 18 sacks of paddy rice on her 0.5-hectare lowland (3.6 tons per hectare). She also harvested five sacks of paddy rice on her highland

near the canal, and two sacks of paddy rice on her distant highland. She used high-yielding varieties and applied fertiliser.

From the total yield of 25 sacks of paddy rice, Reap kept two sacks for seeds and spent about four sacks on production expenses. She spent another 12 sacks to repay loans that she had borrowed the year before to treat the illness of her now deceased daughter. "I borrowed a lot to cure my daughter," Reap recounted sadly. "I took her to Kantha Bopha Hospital in Phnom Penh and to the private clinic in Neak Loeang, but no one was able to help her." When she needed cash, Reap first sold her rice stocks. By November 1996, six months after the harvest, she had sold five baskets of milled rice for cash at 6,000 riels per basket. When she was no longer able to sell her rice stocks, she borrowed cash and repaid every loan of 20,000 riels with one sack of paddy rice at the harvest.

When Reap experienced a rice shortage, she borrowed from Samnang and PISOthy without interest for consumption needs. At times, her brother and sister gave her paddy or milled rice without asking for repayment. Often they gave her fish from their household catch. Dy Lay also gave Reap a share of the fish he caught, though he kept his net and gear at the house of his other wife and family. "Lay rarely goes fishing," said Reap. "He spends a lot of his time drinking."

Other Livelihood Pursuits

In late 1996, Bun Reap hired out her labour in rice cultivation and earned 6,000 riels for three days of transplanting. She also grew coconuts on her house lot and raised chickens. Reap gathered firewood by herself and collected palm leaves to weave mats for drying paddy rice. Wild vegetables were becoming scarce and more difficult to gather, but Reap grew morning glory between her rice plants. Each year, she made *prahoc* for household consumption.

External Assistance

Before the 1993 national election, Bun Reap, like many Babaong villagers, received gifts of milled rice from the Cambodian Red Cross in Kandieng commune. No subsequent assistance was given.

Two years before, a credit scheme had been initiated in Babaong by the Women in Development (WID) Programme of UNICEF and was managed by the village chief. Reap tried to borrow from the scheme, but was told that the funds had been loaned out to others. "Better-off villagers received the loans first," complained Reap. "Poorer families were not able to borrow from the fund."

Case Six

The Story of Keng Preap and Kin

In 1954, Keng Preap married Ith Chith at the age of 15. Like her husband, Preap had lived in Babaong since her birth. Preap and Chith had seven children: Seiha, Sopheap, Siet, Sophoeun, Sokola, Sovany and Saroun. Chith never saw his youngest child. Months before the birth of Saroun, he was killed by the Khmer Rouge. In 1996, the widowed Preap was 57 years old and lived in Babaong with her 23-year-old daughter Sovany. Her youngest daughter, 17-year-old Saroun, had recently left with her married sister Sokola to work in Thailand as a construction labourer. Preap's four older children were married and lived in the village.

Landholdings

The circumstances surrounding the current state of the Preap family landholdings were rather complex. Although some family members had augmented their landholdings through purchase and clearing plots, others had squandered their lands through drinking and gambling.

Landholdings of Keng Preap—Keng Preap had cultivated rice land on her own since the dissolution of the *krom samaki*. In 1996, she had one lowland parcel and two highland plots. One of the highland plots was near the irrigation canal. None of her landholdings had been distributed to her children.

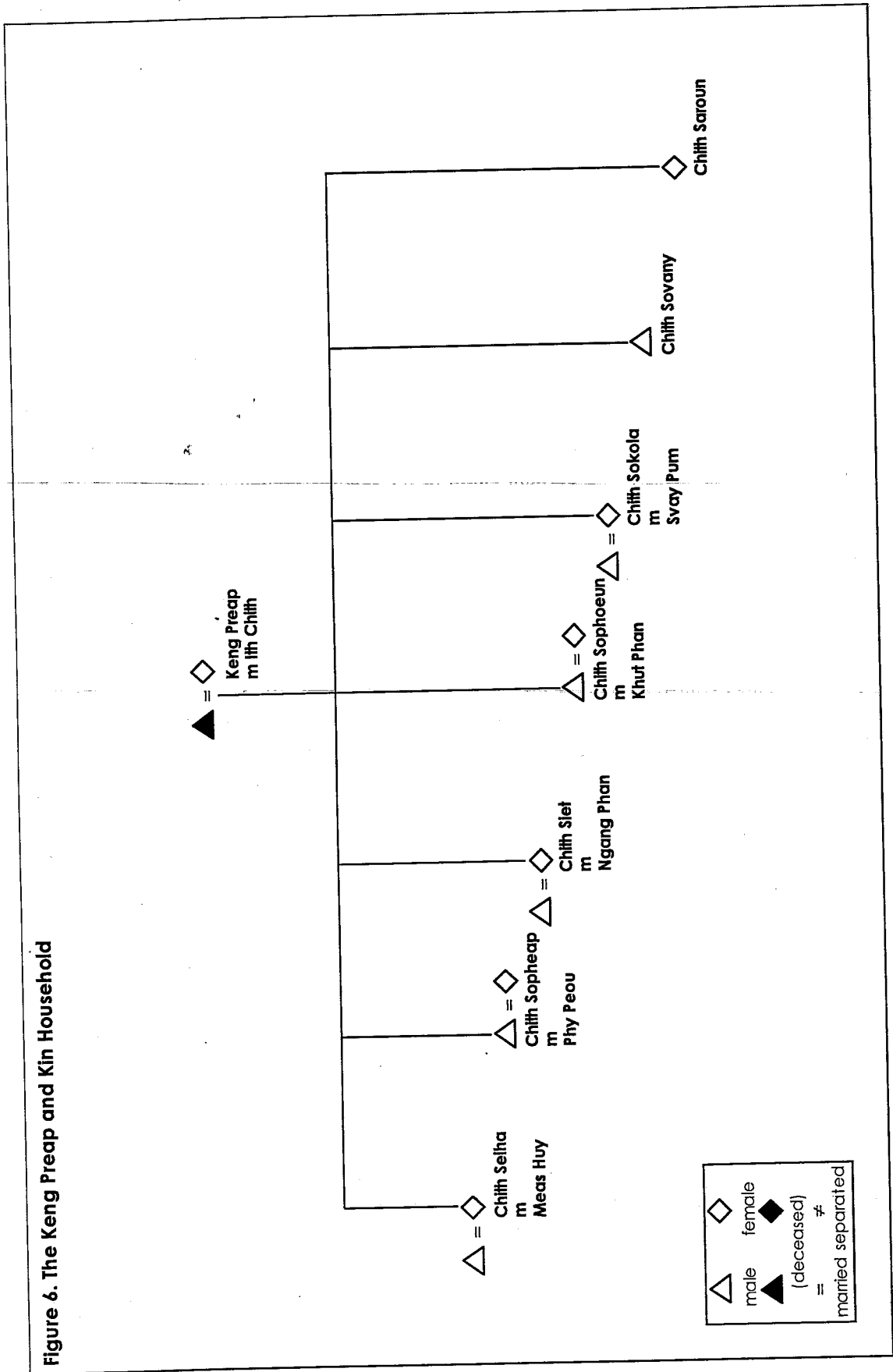
Preap's married daughter Sokola had rights to a lowland parcel in Babaong which produced an annual yield of between 40 and 50 sacks of paddy rice. In 1996, she leased the parcel to another villager for three years and used the rent of five chis of gold to finance the trip to Thailand.

Landholdings of Chith Seiha—Keng Preap's oldest daughter, 41-year-old Chith Seiha, and her husband, 35-year-old Meas Huy, had cultivated a 0.2-hectare parcel of lowland since the end of the *krom samaki*. In 1985, the couple purchased another 0.6-hectare parcel of lowland for a total of 0.8 hectares.

In 1992, Seiha and Huy leased 0.5 hectares of their lowland to Huy's brother Meas Hem for an annual rent of 15 sacks of paddy rice. Hem cultivated the land for two years. In 1995, the couple sold the 0.5 hectares to another villager for eight chis of gold to repay debts accrued primarily from gambling. Disregarding the advice of relatives and village leaders, Seiha and Huy refused to curtail their habitual card-playing. In 1995, Huy likewise sold a house lot for five chis of gold that he had and Hem had inherited from their parents. Hem received two chis of gold as his share of the proceeds. Seiha and Huy then moved their house to the edge of the village on a small plot of land owned by her mother.

In 1993, Seiha and Huy had mortgaged the remaining 0.3 hectares of their lowland to a Babaong villager for three chis of gold to pay the village nurse Chea Ratha for medical

Figure 6. The Keng Preap and Kin Household



treatment for their children. Under the agreement, the villager mortgaging the land had the right to cultivate it without sharing the harvest until the loan was repaid. In 1995, though the loan remained unpaid, the couple borrowed another three chis of gold from the same villager. This time they agreed to relinquish the 0.3-hectare parcel to him if the entire loan remained unpaid by 1997. By Seiha's own account, they were certain to lose this land.

Landholdings of Chith Sopheap—Keng Preap's 38-year-old son, Chith Sopheap, and his 37-year-old wife, Phy Peou, received 0.5 hectares of lowland at the break-up of the *krom samaki*. In 1986, the couple began to clear another 1.5 hectares of village lowland with help from Peou's mother and younger siblings. After this land was cleared, Sopheap and Peou retained it as their own and transferred the 0.5-hectare parcel to Peou's mother. Peou's father, a Lon Nol soldier, had been killed by the Khmer Rouge in 1975.

Landholdings of Chith Siet—Keng Preap's 35-year-old daughter, Chith Siet, and her husband, 34-year-old Ngang Phan, took up residence in his home village of Prolung Meas in Prey Veng district soon after their marriage. Until the early 1990s, the couple cultivated a parcel of wet-season rain-fed rice land in Prolung Meas that Phan had received as his inheritance. They moved to Babaong when they were given a neglected parcel of flood-recession lowland to work by Siet's sister Seiha. Phan allowed his own sister to work the rain-fed rice land in Prolung Meas without sharing the harvest.

Siet and Phan cultivated the lowland in Babaong for about three years. They then sold it to pay for medical expenses incurred from the treatment of their two young sons. The sale left them without landholdings in the village, but the couple maintained their residence in Babaong. Nevertheless, they reclaimed their rain-fed rice land in Prolung Meas from Phan's sister and travelled there to cultivate it during the wet season.

Rice Cultivation

In the 1995/96 dry season, Keng Preap and her son Chith Sopheap cultivated flood-recession rice in Babaong. In the 1995 and 1996 wet seasons, Preap's daughter Chith Siet cultivated rain-fed rice in her husband's village of Prolung Meas. By 1996, Preap's daughter Chith Seiha had mortgaged or sold all of her landholdings.

Keng Preap's cultivation—In the 1995/96 dry season, Keng Preap's household cultivated one lowland parcel and two highland plots. In exchange for mornings of ploughing and raking on their own rice fields, Preap's unmarried daughters, Sovany and Saroun, transplanted for full days on the farms of several men in the village. Preap sowed the seedbeds, Sovany and Saroun pulled seedlings for the highland plots, and Preap pulled seedlings for the lowland parcel when her daughters exchanged labour on other farms. Sovany and Saroun carried the seedlings to the field, and were sometimes assisted by the husbands of their married sisters, Sokola and Siet.

Sovany and Saroun did most of the transplanting with help from hired and exchange labour. The hired labour was paid at a rate of 2,000 riels per day plus two meals. Sokola and Siet helped their sisters to transplant for a few of days without payment as part of the mutual assistance that took place within the family. Preap rented pumping machines to irrigate her rice plots.

Sovany and Saroun harvested the highland plots by themselves. Labourers were hired at a rate of 2,000 riels per day plus two meals to help them harvest the lowland. Sovany and Saroun threshed the more distant highland plot by hand. Their mother hired a threshing machine to thresh the highland near the canal. She hired labourers at 3,000 riels per day plus three meals to thresh the lowland by hand. Sovany and Saroun carried home the harvest from the distant highland on their heads and exchanged labour with village men to transport the harvest from the other two fields to their house.

Chith Sopheap's cultivation—Without draught animals of their own, Chith Sopheap and his wife Phy Peou hired a tractor to plough their entire 1.5-hectare lowland parcel for 75,000 riels in the 1995/96 dry season. They then hired villagers with water buffalo to rake the land for a total payment of three sacks of paddy rice at the harvest. Sopheap's 17-year-old daughter Moroth exchanged labour for the ploughing and raking of the seedbed. Sopheap sowed the seeds. Peou and Moroth pulled seedlings and transplanted with help from labourers hired at a rate of 2,000 riels per day plus two meals. Exchange labourers also helped with the transplanting and Moroth repaid their work.

Sopheap irrigated the field with his own pump, purchased in 1992 for 11 chis of gold. He bought diesel from Neak Loeang and transported it to Babaong by *remorque*. Peou and Moroth harvested the field with help from labourers hired from outside the village at piece rate. The harvesters were paid at a rate of 400 riels for every 100 bundles harvested, plus two meals per day. They normally earned from 1,200 to 2,000 riels per day. Sopheap and Peou hired a thresher from outside the village and paid the owner two sacks of paddy rice for one day's rental. The couple transported the paddy rice home first by boat at one basket of paddy rice for every five sacks carried, and then by tractor trailer at 500 riels for every sack hauled.

Chith Siet's cultivation—In the 1995 wet season, Chith Siet and Ngang Phan cultivated the rain-fed parcel of rice land in Phan's home village of Prolung Meas. The entire household travelled there with their water buffalo and stayed at the home of Phan's sister. Phan ploughed and raked with his water buffalo and an ox borrowed from his sister. Siet pulled the seedlings and transplanted with some help from Phan. Phan's sister also helped to transplant. The wet season cultivation in Prolung Meas relied entirely on rain.

After transplanting was finished, Siet and Phan and their three young sons returned to Babaong with the water buffalo. They asked Phan's sister to watch over the crop. When the grain was about to be harvested, the couple returned to Prolung Meas with their two youngest sons. They left their 10-year-old son at the house of his grandmother, Keng Preap, to take care of the water buffalo. Siet and Phan harvested the rice field by themselves. Phan carried the harvested bundles to his sister's house and did the threshing by hand.

Rice Production and Distribution

Keng Preap's household—In the 1995/96 crop season, Keng Preap harvested five sacks of paddy rice on her distant highland, seven sacks of paddy rice on her highland near the canal, and 19 sacks of paddy rice on her lowland. From the total yield of 31 sacks, Preap's household spent about 12 sacks on production expenses, two sacks for medical treatment (including one sack paid to Chea Ratha), and one sack to buy clothes.

Chith Sopheap's household—In the 1995/96 crop season, Chith Sopheap and Phy Peou obtained a yield of 70 sacks of paddy rice on their 1.5-hectare lowland (4.7 tons per hectare). They used high-yielding varieties, three sacks of fertiliser and one litre of pesticide. At the harvest, the couple sold 40 sacks of their total yield to traders from Kandal province who came to the village by boat. Sopheap and Peou sold their paddy rice at 308 riels per kg (30,800 riels per sack). They used some of this money to pay back interest-bearing loans for production expenses and for the purchase of two mature oxen. They spent some money as well to buy a cassette recorder and car battery. In 1996, there was no electricity in Babaong. Villagers used and recharged batteries to run electric lights, cassette players and televisions. In the last crop season, Sopheap and Peou had no consumption loans to repay. In previous years, they had borrowed up to three sacks of paddy rice without interest before the harvest for their consumption.

Chith Siet's household—In the 1995 crop season, Chith Siet and Ngang Phan harvested only eight sacks of paddy rice on their rain-fed rice field in Prolung Meas. They retained one sack for seeds. The only other production cost they incurred was 12,000 riels for fertiliser.

Siet and Phan kept half of the net harvest at Phan's sister's house in Prolung Meas and transported the other half to Babaong. "We never have enough rice to eat," said Siet. "During times of shortage, I borrow rice from relatives without interest and pay them back at the harvest. My mother sometimes gives us one or two baskets of paddy rice as a gift."

Credit

Keng Preap's household—In 1996, Keng Preap borrowed one chi of gold from each of three different village moneylenders. The interest on the loans in each instance was 0.1 chi of gold (10 percent) per month. Preap borrowed two chis of gold to finance her vegetable trade around Babaong. She borrowed another chi of gold for medical treatment and for the Pchum Ben festival. In September 1996 during the Pchum Ben ceremonies, Preap's daughters Sokola and Saroun sent her 200,000 riels from Thailand which she used to repay some debts.

In 1996, Preap was able to borrow 50,000 riels at 4 percent interest per month from the village credit scheme. By November 1996, she had already made two interest payments each of 2,000 riels.

Chith Seiha's household—In 1995 and 1996, Chith Seiha and Meas Huy sold and mortgaged their landholdings to pay for their accumulating gambling debts. In late 1996, the couple still owed one chi of gold without interest to Seiha's mother Keng Preap.

Without access to land, the couple were forced to procure rice with the earnings from their labour. In 1996, they had borrowed two baskets of paddy rice from each of three village residents. For every two baskets borrowed, Seiha agreed to pull seedlings and transplant for five days on the lenders' farms. By November 1996, she had begun to repay these loans.

In mid-1996, Seiha borrowed 20,000 riels at 4 percent interest from the village credit scheme to finance her fish and prawn trade from Babaong to Phnom Penh. Seiha had been involved in this enterprise for more than 10 years, but had lost her capital to debts. Although the money borrowed from the credit scheme was insufficient to restart the business, Seiha repaid the loan in August 1996 with earnings from carrying soil. "The village chief let us borrow from the credit scheme," explained Seiha. "He is not our relative, but he helps us. Sometimes he gives us free medicine and 1 or 2 kg of milled rice."

Chith Sopheap's household—In 1995 and 1996, Chith Sopheap and Phy Peou incurred debts of 13.5 chis of gold, including three chis from moneylender Ek Heang and two chis from her sister Ek Uy for rice production expenses and the purchase of two mature oxen. Of the total, four chis were borrowed at 6 percent interest per month, 7.5 chis at 10 percent interest per month, and two chis with interest included in the repayment of 13 sacks of paddy rice at the harvest. A large portion of these loans were repaid by the 1996 harvest with the sale of paddy rice.

In 1996, Chith Sopheap and Phy Peou borrowed 50,000 riels at 4 percent monthly interest from the village credit scheme. In late 1996, they borrowed two sacks of UREA fertiliser from the Mennonite Central Committee (MCC) input scheme at 4 percent monthly interest. The couple was also able to borrow small amounts of cash of between 10,000 and 20,000 riels from relatives and friends without interest.

Chith Siet's household—In 1996, Chith Siet and Ngang Phan borrowed 10,000 riels at 4 percent interest from the village credit scheme. They repaid the loan in May 1996.

In September 1996, they borrowed 30,000 riels from a village moneylender at 25 percent monthly interest. Three months later they had made only one interest payment.

Other Livelihood Pursuits

Keng Preap's household—Keng Preap's unmarried daughters, Sovany and Saroun, hired out their labour to others in rice cultivation. In the 1995/96 crop season, they together earned 40,000 riels from transplanting and 10,000 riels from harvesting. In the previous crop season, they had transplanted for half a month in another Prey Veng village, staying with families who had come to work as labourers in the rice fields of Babaong. In the 1995/96 crop season, Sovany was ill and Preap did not allow Saroun to work outside the village on her own.

In the 1995 wet season, Sovany earned 2,000 riels per day from the sale of chicken rice porridge in Babaong. In 1996, after her younger sister Saroun left for work in Thailand, Sovany no longer sold the porridge. In 1995, Preap bought and sold vegetables in Babaong, earning a few cans of milled rice and a few hundred riels each day. In 1996, she resumed this trade but stopped after a few months due to illness.

Sovany collected firewood and carried water for herself and her mother. The two had no livestock, and only one hen and six chickens.

Chith Seiha's household—In 1996, Meas Huy and Chith Seiha carried soil at the village wats and in the rice fields of the village nurse Chea Ratha and others until the September flood. They were paid at rates of between 2,000 and 3,000 riels per cubic metre, depending on distance the earth was moved. Together, they were able to carry from three to four cubic metres per day.

In late 1996, Seiha hired out her labour to pull seedlings and transplant in Babaong at the rate of 2,000 riels plus two meals per day. She also arranged to help her mother Keng Preap cultivate a parcel of highland in the forthcoming 1996/97 crop season for a share of the harvest. Huy caught fish for home consumption, though towards the end of the year he was not engaged in wage work. The couple's 13-year-old daughter, Srun, gathered small fish and wild vegetables. She also collected firewood with her mother and carried water with her nine-year-old sister, Karn.

Chith Sopheap's household—Although Chith Sopheap owned a boat worth 200,000 riels, he had rarely gone fishing in the past two years. The couple's 15- and 13-year-old sons, Mora and Morith, caught fish for household consumption. Mora took care of the two oxen his parents had recently purchased, and Morith looked after a cow raised under a *provas* agreement with the village chief Nuon Pheng. The cow had already given birth to two calves, one for the household and for the chief. The young sons gathered firewood and carried water. Their 17-year-old sister Moroth gathered wild vegetables and firewood.

No one in the household hired out their labour to others in rice cultivation, nor did they engage in off-farm enterprises. Sopheap often cooked for weddings in the village without payment. On their house lot, the couple raised coconuts, bananas and other crops. Aside from their livestock, they raised a few ducks.

Chith Siet's household—After the 1996 rain-fed rice harvest in Prolung Meas, Siet earned 1,000 riels per day from the sale of noodle soup. Back in Babaong, she traded sour cucumbers that she had prepared for cans of milled rice. In late 1996, Siet's trade of shrimps bought in Babaong and sold in Neak Loeng market earned her up to 4,000 riels per trip. She also made *prahoc* with her husband's catch.

In Babaong, Siet hired out her labour in rice cultivation, pulling seedlings, transplanting and harvesting. She normally earned 2,000 riels per day plus two meals. When she received her wage a month in advance, she earned only 1,500 riels per day plus two meals.

In 1996, Siet's husband Ngang Phan fished with a net and sold small amounts of up to 1 kg at 1,500 to 2,000 riels per kg. In the same year, Phan carried soil in the rice fields of Chea Ratha and earned from 2,000 to 3,000 riels per day without meals.

Before the Pchum Ben festival in September 1996, Phan worked in Phnom Penh for 10 days as a cyclo driver and brought home 30,000 riels. After Pchum Ben, he returned for another 10 days of this work and brought home 35,000 riels.

Part Three

**Accounts from the Kompong Speu
Village of Trapeang Prei**

Trapeang Prei Village

Trapeang Prei village is located in Ksem Ksan commune of Odong district in Kompong Speu province (see Map 2 overleaf). The village is located 45 km from Phnom Penh by road.

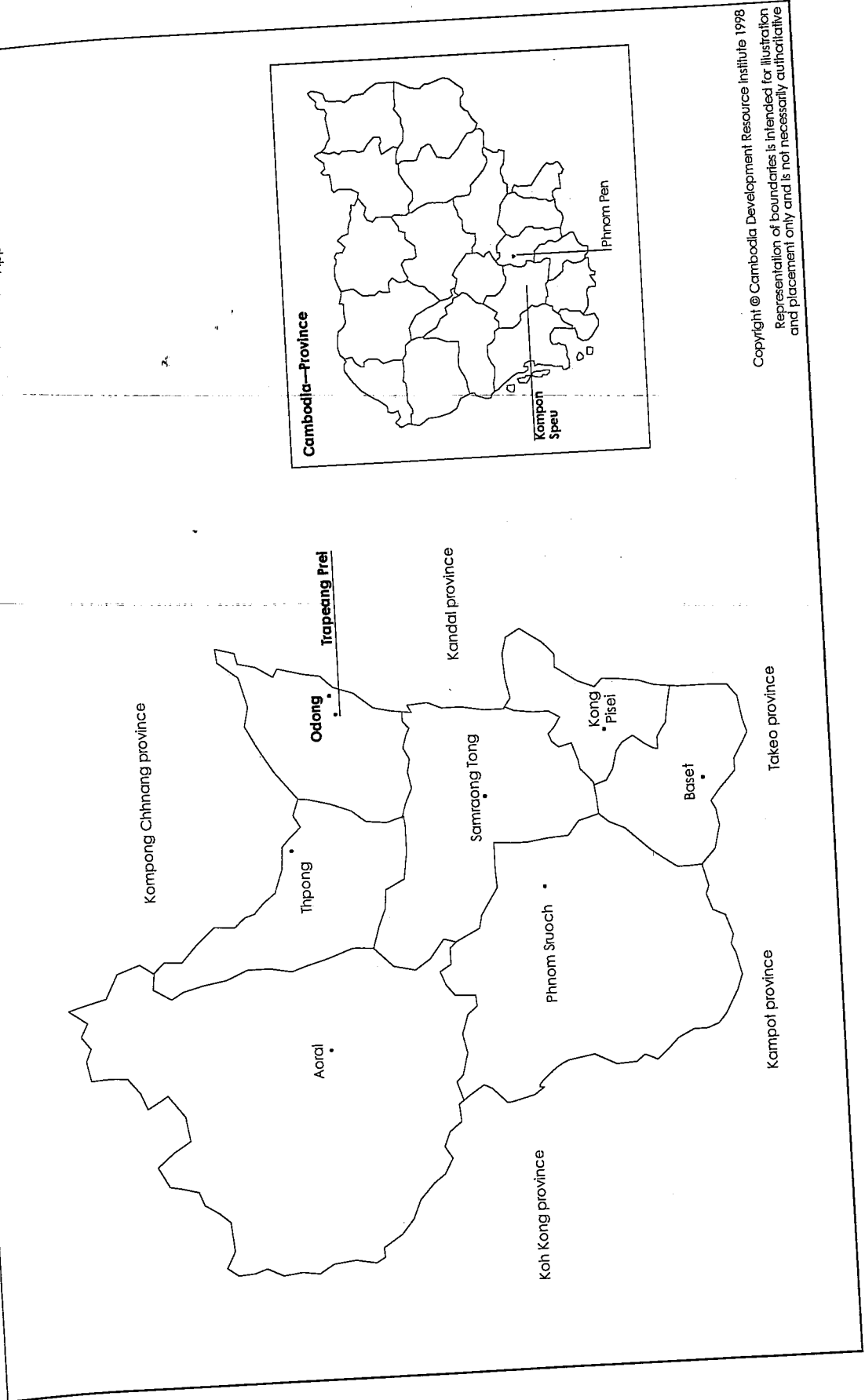
In 1996, there were 64 households in Trapeang Prei. Villagers cultivated rain-fed rice on drought-prone lands that generally produced less than 1.5 tons of paddy rice per hectare. Some residents processed palm sugar after the rice crop. Almost all households earned part of their livelihood from migrant work.

There were no deep wells in Trapeang Prei. Residents collected water from village ponds. During the dry season they sometimes had to collect water from a neighbouring village 2.5 km away.

There were no wats in Trapeang Prei. Villagers had to travel distances of between 5 and 7 km to attend one of the three wats in the area. There were also no schools in the village. Primary school children walked to classes in Bat Doeng 3 km away or attended classes at a wat 5 km away.

There were likewise no health clinics in Trapeang Prei. Villagers normally bought medicine from small pharmacy stores in Bat Doeng market or, in times of greater need, consulted private health clinics in Bat Doeng.

Map 2. Kompong Speu Province
Approximate scale 1:750,000



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Case One

The Story of Pheap Long and Kin

1) The Pheap Long Family Household

Pheap Long was a lifelong resident of Trapeang Prei. Her husband, Chok Vin, had migrated from the nearby commune of Trach Tang. In 1996, when the youngest of their nine children was born, Long was 47 and Vin was 51 years old. They lived in Trapeang Prei in a large wooden house with their six unmarried children: a 21-year-old son, Vin Reap; an 18-year-old daughter, Vin Roth; a 10-year-old son, Vin Rin; an eight-year-old son, Vin Ry; a seven-year-old daughter Vin Ra; and a six-month old daughter, Vin Phy. Their three elder daughters, 25-year-old Vin Neang, 24-year-old Vin Rom, and 20-year-old Vin Rith, were married and lived nearby in smaller houses on a house lot belonging to their mother. For the most part, the family members enjoyed good health.

Vin Neang and her husband, 24-year-old Mao Huot, had three small children. The couple had lived in Huot's village for more than two years before they moved to Trapeang Prei to cultivate a small parcel of land Neang's parents had given them.

Vin Rom had a turbulent marriage with her second husband, 30-year-old Sao Mom. Shortly after she gave birth to her first child in 1996, Mom left her to work as a security guard in another district in Kompong Speu. Without support from her husband, Rom and her baby lived temporarily in the house of her parents and relied on them for subsistence.

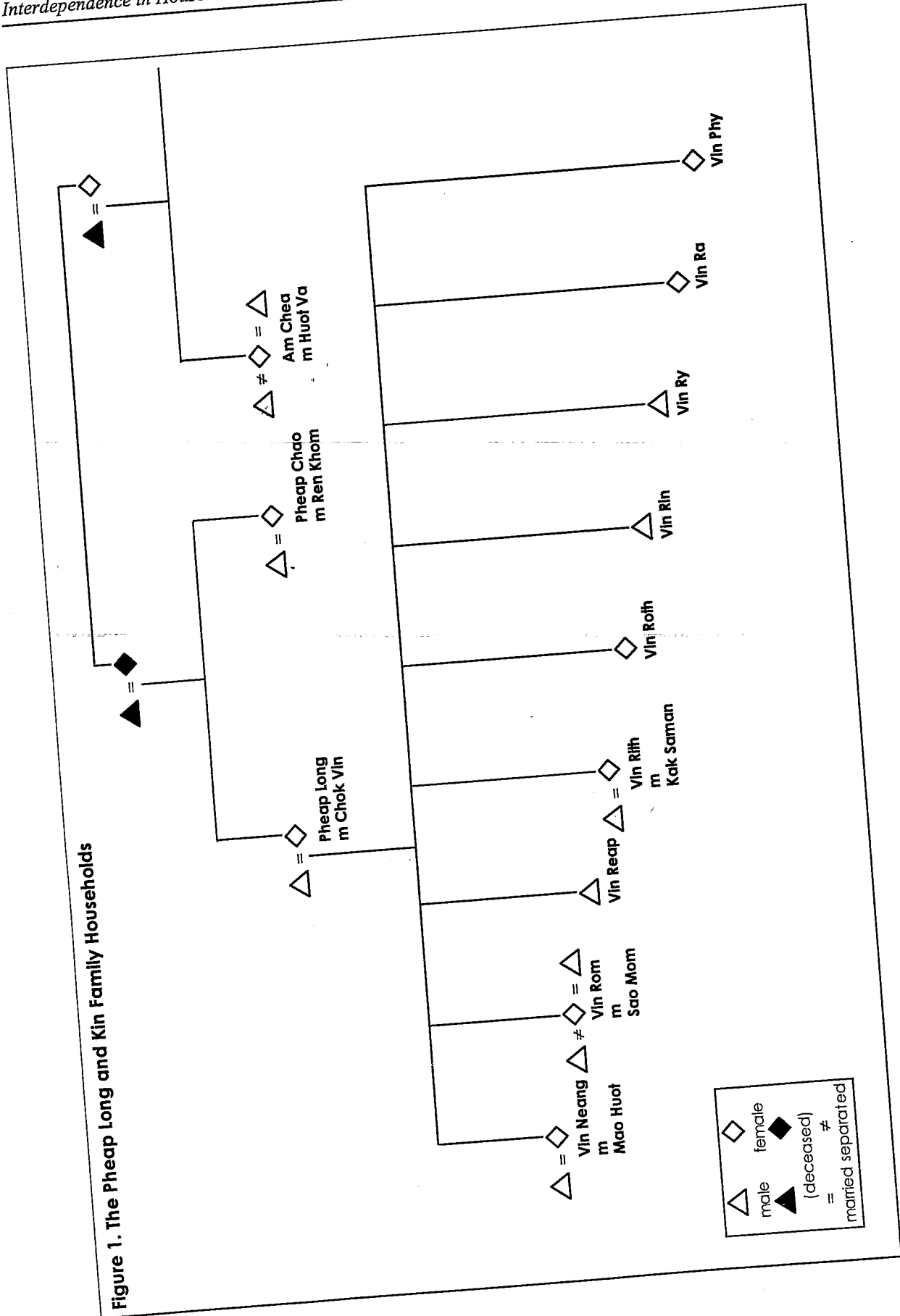
Vin Rith and her husband, 30-year-old Kak Saman, had married in 1995 and had no children.

Landholdings

Pheap Long and Chok Vin were able to reclaim rights to family farmland under the People's Republic of Kampuchea. Vin obtained 0.5 hectares of rain-fed rice land in his home commune of Trach Tang. Long similarly received 0.1 hectares of rain-fed rice land from her parents in Trapeang Prei. They had enlarged their landholdings through the purchase of four additional parcels of land. "We used our savings from making palm sugar to buy the rice land," Long explained.

Long and Vin bought a 0.1-hectare parcel of rice land in Trapeang Prei from Long's aunt, Sam Leng. They purchased a 0.2-hectare parcel from Long's brother who moved to Ratanakkiri province. Later the couple bought a 0.2-hectare parcel of higher land for 1.5 chis of gold from someone in a neighbouring village. More recently, they bought a 0.5-hectare parcel of drought-prone rice land for two chis from one of Long's distant relatives.

In recent years, Long and Vin had given parcels of rice land to their married daughters. Neang was given the 0.1-hectare purchased parcel, Rom the 0.1-hectare inherited parcel, and



Rith the 0.2-hectare purchased parcel. Long and Vin retained the two 0.5-hectare parcels for cultivating rice and the 0.2 hectare parcel for watermelons.

Rice Cultivation

Pheap Long and Chok Vin and their married daughters cultivated their land with wet season rain-fed rice. The season began with the first rains in June or July and ended in November or December. In the 1995 crop season, the four households used traditional rather than high-yielding rice varieties, and only Long and Vin used fertiliser. None of the households used irrigation pumps or mechanical threshers.

In the 1995 season, Long and Vin cultivated the 0.5-hectare parcel in Vin's home village and the 0.5-hectare parcel in Trapeang Prei. Their married daughters, Neang, Rom and Rith, cultivated the parcels given to them by their parents.

In the 1995 season, the family households cultivated their rice fields through a combination of household and exchange labour. Within the four households, everyone helped one another without a strict accounting of work done. At the same time, the labour exchange was restricted to the family households. "We exchange labour only with our daughters," Long remarked, "and everyone works more or less the same for each other." In the last crop season, labour exchange within the family was most pronounced in pulling seedlings and transplanting. With the exception of a few workers hired to help transplant Vin's parcel in Trach Tang, none of the four households hired farm labourers.

The major rice cultivation tasks undertaken by the family households in the 1995 season were ploughing and raking, sowing, pulling seedlings, transplanting, weeding, harvesting and threshing. Divisions of labour between men and women were more clearly delineated in some tasks than in others. Men ploughed and raked, women sowed, and both participated in other cultivation activities.

Ploughing and raking—Vin ploughed and raked his own rice fields with help from his son Reap. Vin also ploughed and raked for his daughter Rom, and ploughed, with Reap, for his daughter Rith. Neang's husband Huot ploughed and raked their parcel and raked Rith's field. Both Vin and Huot used their own draught animals. There were no requirements for family members to reciprocate mornings spent in ploughing or raking with full days spent in pulling seedlings or transplanting.

Sowing—Long and her daughters Neang and Rom sowed the seedbeds on their own plots. Long also sowed for her daughter Rith.

Pulling seedlings—Long and Vin, their unmarried children Reap and Roth, their married daughters Neang, Rom and Rith, and the husbands of Neang and Rith (but not Rom) pulled seedlings on their own farms and exchanged labour on the farms of other family households. Although family members counted the bundles pulled for each other, they did not enforce a strict exchange.

Transplanting—Family household members transplanted on their own and each other's farms in largely the same manner as they had pulled seedlings. Rom's husband transplanted on her parcel but not on the parcels of her parents and sisters. Vin hired a few labourers to help transplant the parcel in Trach Tang.

Weeding—Women and men from each household did their own weeding.

Harvesting—For the most part, women and men from each household harvested their own crops. There was some exchange among the married sisters, and unmarried Roth helped her married sister Rith. Neang's husband Huot helped to transport the paddy rice home for Rom and Rith in his oxcart.

Threshing—All threshing of harvested paddy rice was done by hand. Vin threshed with help from his children Reap and Roth and son-in-law Huot. Huot threshed by himself. Rom threshed with help from her father. Rith and her husband threshed together.

The family households milled their paddy rice nearby at the village chief's mill. Most paid the leftover bran as the milling fee. Rith kept the bran to feed her pig and was charged 300 riels for every basket of paddy rice milled.

Rice Production

The relatively low yields of the rain-fed rice lands in and around Trapeang Prei were evident from the rice harvests of Pheap Long's family in the 1995 crop season.

Pheap Long and Chok Vin's household—Long and Vin obtained a gross harvest of 11.2 sacks (80 baskets) of paddy rice on their combined 1.0 hectares of rice land (1.1 tons per hectare). Seven baskets were spent for fertiliser. Another 10 baskets were spent for paddy rice they had borrowed without interest from Vin's sister. Three baskets were spent for 2 kg of pork borrowed with interest at the previous Pchum Ben festival. After deducting these costs, their net yield was 8.4 sacks (60 baskets).

Vin Neang's household—Neang and Huot harvested 2.8 sacks (20 baskets) of paddy rice on their 0.1-hectare plot (2.8 tons per hectare). They would have obtained two more baskets had a part of their plot not been affected by drought. "Our harvest lasts for about two months," Neang said, "then we have to buy rice from our palm sugar earnings or borrow rice with interest from the market."

Vin Rom's household—Rom harvested 0.84 sacks (6 baskets) of paddy rice on her 0.1-hectare plot (0.6 tons per hectare). Despite her protests, her husband Sao Mom sold two baskets and kept the money for himself. This left her with only four baskets for consumption. After two months she had to buy milled rice from the market with money she had earned selling crabs and snails. She also received milled rice from her parents without having to repay them.

Vin Rith's household—Rith and Saman obtained 2.8 sacks (20 baskets) of paddy rice on her 0.2 hectares of rice land (1.4 tons per hectare). From the total she spent nine baskets to repay a five-basket paddy rice loan of borrowed before the harvest. The rice that remained was sufficient for less than two months' consumption. She then had to buy milled rice from the market with her husband's off-farm earnings. She also received small amounts of milled rice from her parents as gifts.

Borrowing Rice

Pheap Long and Chok Vin's household—In 1995, Long and Vin borrowed 10 baskets of paddy rice without interest from Vin's sister in Trach Tang commune. In October 1996, they had yet to borrow rice, though they expected to experience a shortage before the harvest. In Trapeang Prei they were able to borrow rice without interest from the village chief, a first cousin of Long's. "Except for small items like salted fish we never borrow from other relatives in the village. They are too poor," said Long. "We are also too poor to lend to them."

Vin Neang's household—In 1996, Neang borrowed 10 baskets of paddy rice from a trader at Bat Doeng market and was to repay 16 baskets of paddy rice at the harvest. In October 1996, she spent 33,000 riels of her 100,000-riel loan from the village credit project to buy 50 kg of milled rice from the market. Neang did not borrow from her parents or neighbours because they were too poor.

Vin Rom's household—In 1996, Rom had not borrowed rice nor had she cultivated her rice land. After giving birth, she lived with her parents and relied on them for her livelihood.

"I never borrow rice from my sisters or money from the village credit project," said Rom. "I only take help from my mother as a gift."

Vin Rith's household—In 1995, Rith borrowed five baskets of paddy rice from a trader at Bat Doeng market and repaid nine baskets at the harvest. In October 1996, she spent 65,000 riels of the 100,000-riel loan she had received from the village credit project to buy one sack of milled rice.

Palm Sugar Processing

Palm sugar processing was the major source of household livelihood for Pheap Long and Chok Vin, and for Vin Neang and Mao Huot. The households of Vin Rom and Vin Rith did not produce palm sugar. Villagers started to process palm sugar at the end of the rice harvest in December and continued until May, with peak months in February and March.

Pheap Long and Chok Vin's household—Long and Vin owned five productive palm trees and rented another 25. They paid rent of 50 kg of sugar for the use of 15 trees and rent of 35 kg of sugar for the remaining 10. Vin and his son Reap climbed the trees and extracted the juice. Long and her daughter Roth boiled and stirred the juice in a large pan over a small oven outside their home to produce the sugar. They received some help from Vin and Reap. Chinese-Khmer traders from Bat Doeng came to the village to buy the sugar. "We sell about half of our sugar during the season to pay for expenses and to buy food," said Vin. "We stock the other half to sell in August or September when the price is higher." The price of palm sugar was 400 to 500 riels per kg in season and 600 to 700 riels per kg later in the year.

In 1996, Long and Vin processed 1,200 kg of palm sugar from the 30 trees for a gross income of about 645,000 riels. From this total, they paid expenses for firewood to process the sugar, bamboo containers to carry the extracted juice, and bamboo steps to climb the trees. In 1996, household costs for firewood amounted to 70,000 riels, for bamboo containers to 34,000 riels and for bamboo poles for steps to 125,000 riels. Deducting these expenses (229,000 riels) from their gross income of 645,000 riels left Long and Vin net earnings of 416,000 riels from palm sugar processing in 1996.

The process of boiling extracted juice to produce sugar required large amounts of firewood. In recent years, palm sugar producers from Trapeang Prei had travelled further and further from the village to obtain firewood. Normally they paid owners for the right to dig out stumps on their land. Producers also bought and cut down unproductive palm trees for firewood. Both the dug-out stumps and the unproductive trees could be purchased on credit and paid for during the production period. Bamboo poles could also be bought on credit. At one time, producers journeyed for days to forested areas to cut down bamboo poles. Now traders brought poles to the village in trucks to sell to the producers.

Vin had processed palm sugar since he was 24 years old. Reap had helped his father for the past three years. When Vin had worked alone he produced only 800 kg of sugar each season. Still, he looked back on those years wistfully. "At that time we were better off," declared Vin. "Our earnings were worth more. Now we have to spend a lot on our children and goods are more expensive."

Vin Neang's household—Much like her parents, Neang and husband Huot relied heavily on earnings from processing palm sugar. In the 1996 season, they rented 20 trees at a cost of 5 kg of sugar per tree. They also incurred expenses for digging out stumps for firewood and for bamboo poles and containers. In 1996, Neang and Huot produced about 10 kg of sugar per day in peak periods. Neang's sisters helped her and Huot boil the juice and, in return, were given some sugar for household consumption. The couple sold their sugar at prices ranging from 400 to 500 riels per kg to the traders who came to the village. They did not keep track of their total production for the year.

On-Farm Pursuits other than Rice Cultivation and Palm Sugar Processing
Pheap Long and Chok Vin's household—In the 1995 crop season, Long and Vin grew watermelons on their 0.2-hectare parcel of higher land and exchanged the produce with other villagers for paddy rice. For one basket of large or two baskets of small watermelons they received one basket of paddy rice. In the 1995 season, they earned 30 baskets of paddy rice from their watermelon production. This was the first profitable yield they had had in four years. In the 1996 crop season they planted rice on the watermelon parcel.

Long and Vin owned three oxen, and raised one pig and three hens. Their son Reap caught frogs, fish, crabs and snails. Their daughter Roth gathered crabs and water lily stalks for home consumption.

Vin Neang's household—Neang and Huot owned one young cow and one young ox, and raised a hen and some chickens. Huot caught frogs and crabs to supplement their food consumption.

Vin Rom's household—Before giving birth, Rom caught crabs and snails in the village rice fields for sale in Bat Doeng. She would work a full day and then walk the 3 km to the market the next morning to sell her catch. With earnings of between 1,000 and 2,000 riels, she bought milled rice and then walked back to the village. Aside from Rom, none of the other family members sold the food they gathered. Rom had no assets in livestock or poultry.

Vin Rith's household—Rith was the only family member to hire out her labour in the 1995 season. She worked for three days for her aunt in Trach Tang commune pulling seedlings and transplanting, and was paid 10 kg of milled rice.

Rith and her husband Saman owned one small cow and raised one pig and two hens. Rith's younger brother Ry looked after the cow. In 1995, Rith sold one pig for 70,000 riels and in 1996 sold four hens for 40,000 riels. She bought milled rice with the proceeds from each sale. Rith cultivated sweet potatoes on her house lot. Saman sometimes caught frogs for their own consumption.

Off-Farm Migrant Work

Pheap Long and Chok Vin's household—In Long's household, Reap earned from off-farm migrant work in 1996. After the sugar processing season ended in May, Reap travelled to Prek Pnov commune in Ponhea Leu district (Kandal province), where he dug and carried soil by the cubic metre to build fish ponds. He earned from 3,000 to 4,000 riels per day and stayed at the work site for one to two weeks at a time. Reap later went to look for work in Kambol commune in Ang Snuol district (Kandal province). He stayed there for one week but found no work and returned home.

Vin Neang's household—In September 1996, Neang's husband Huot journeyed to Kambol commune to work on construction sites. He had learned about the job from his sister's husband. Huot earned 5,000 riels per day without meals. He spent 1,000 riels per day on food in addition to the milled rice he brought to the site. After half a month of this work, Huot returned to the village to gather tree stumps for processing palm sugar.

Vin Rom's household—In 1996, Rom's husband Mom left her to work as a security guard in another district in Kompong Speu. Since he began his new job, he had visited her only once and had never given her a share of his earnings. He had told his friends that he did not want to come back to Trapeang Prei.

Vin Rith's household—Before his marriage Rith's husband Kak Saman had worked in Phnom Penh on several occasions. Although he had never had a permanent job, he had a place to stay in the city with his married sister. For construction work, Saman usually earned 5,000 riels per day without meals. In early 1996, he worked for three months at a Phnom Penh brick making company. Later in the year he worked for two weeks at a construction site

in Kambol commune. His salary was 5,000 riels per day without meals. "He worked for two weeks," said Rith, "but he was only able to give me 17,000 riels." In 1995, Rith and Saman had purchased a 0.2-hectare parcel of land in Trapeang Prei for two chis of gold with off-farm migrant earnings. In 1996 they planted rain-fed rice on the parcel.

Credit

In January 1996, Pheap Long and Chok Vin borrowed 60,000 riels in the first cycle of the village credit project at 4 percent interest per month and used the money to buy bamboo poles for steps. Normally they would have sold part of their sugar production to pay for the steps. The loan allowed them to stock the sugar for sale at a higher price later in the year. In August 1996, they sold some sugar to repay the loan.

In late September 1996, Long and Vin borrowed 100,000 riels in the second cycle of the credit scheme under the same repayment terms. They planned to use the money to raise a pig, buy some food, and purchase bamboo poles for the forthcoming season. Within two weeks, they had already spent about half of the money for Pchum Ben preparations and to buy firewood for boiling palm sugar. They were unlikely to buy a pig.

Vin Neang and Mao Huot borrowed 100,000 riels in the second cycle of the credit scheme and immediately spent 33,000 riels for 50 kg of milled rice purchased from traders at Bat Doeng market. Like her parents, Neang also spent money for Pchum Ben.

Vin Rith and Kak Saman borrowed 100,000 riels in the second cycle of the credit scheme and spent 65,000 riels for 100 kg of milled rice. They likewise spent money to prepare for Pchum Ben.

Vin Rom did not borrow from the credit scheme. She had no means to repay the loans.

2) The Household of Pheap Chao

Pheap Chao, the 37-year-old sister of Pheap Long, and her 39-year-old husband Ren Khom, lived in Trapeang Prei with seven of their eight children, aged 14 years to three months. Their 12-year-old son studied and lived with the monks at a wat in Kandal province. Khom was from the Odong district commune of Chanta Sen.

Much like Long and her husband Chok Vin, Chao and Khom relied primarily on palm sugar processing and rice cultivation to sustain their livelihood. With the break-up of communal farming they had received six plots of rain-fed rice land. With savings from palm sugar production they bought an additional three plots in 1992 for four chis of gold. The nine plots amounted to about one hectare of rice land.

Rice Cultivation, Production and Consumption

Much like the family households of Pheap Long and Chok Vin, Pheap Chao and Ren Khom cultivated their rice land through a combination of household and exchange labour. In the 1995 crop season, they used traditional varieties of rice with no irrigation. Khom ploughed, raked and prepared the seedbeds using his own oxen. Chao sowed the seeds. Chao and Khom, with help from their 14-year-old son No, pulled seedlings, transplanted and harvested. Chao and Khom did the weeding. Khom carried the bundles of harvested rice home with his oxcart and threshed the rice by hand with No. "When we work in the rice fields," Chao said, "we take all the children with us and eat there." They milled their paddy rice at the village chief's rice mill and paid the bran as a fee.

In the 1995 season, Chao, Khom and No exchanged labour with some of Chao's relatives in the tasks of pulling seedlings and transplanting. These households helped each other with-

out requiring exact measures of exchange as to the work done. The only exception was when Khom ploughed for one of these relatives at a rate of one morning of ploughing for one full day of transplanting. In the 1995 season, Chao and Khom did not hire any farm labourers to help them with rice cultivation. Neither did they hire out their labour to others.

Chao maintained that, with sufficient rain, their one hectare of rice land could produce about 16.8 sacks (120 baskets) of paddy rice (1.7 tons per hectare). However, in the 1995 season, they harvested only 8.4 sacks (60 baskets) of rice (0.8 tons per hectare). Out of this total they had to pay 20 baskets to repay a loan of 12 baskets borrowed four months earlier from a Chinese-Khmer trader. The 5.6 sacks (40 baskets) of rice that remained was enough to feed the household for about five months.

In 1996, Chao borrowed 10 baskets of paddy rice from a trader in Bat Doeng market and agreed to repay 15 baskets at the harvest in December. The couple also borrowed without interest three baskets of paddy rice from Khom's aunt in Chanta Sen commune and two baskets of paddy rice from a better-off villager in Trapeang Prei. "We will need to borrow again before the harvest," calculated Chao. Her cousin in the nearby village of Trapeang Thma had offered to lend them five baskets of paddy rice without interest until the harvest.

Palm Sugar Processing

From December 1995 to April 1996, Pheap Chao and Ren Khom processed palm sugar from 22 trees. Of the total, 14 trees were their own and eight were rented for the season at 8 kg of sugar per tree. Khom climbed the trees to extract the juice and Chao boiled the juice with their son No. The household produced from 12 to 15 kg of sugar a day in peak periods, earning from 6,000 to 7,500 riels per day at rates of 500 riels per kg. By August, the price had risen to 700 riels per kg.

In 1996, Chao and Khom incurred about 210,000 riels in production expenses for stumps for firewood, bamboo poles for steps and bamboo containers. In previous years, the couple had borrowed 30,000 riels in September or October from relatives in Trapeang Thma to help finance their palm sugar production. In March or April, they would repay the loan with 100 kg of palm sugar worth 50,000 riels. In the last production season, Chao and Khom borrowed instead from the village credit project.

In January 1996, Chao and Khom borrowed a first cycle loan of 60,000 riels from the credit scheme at 4 percent interest per month to buy bamboo poles and firewood. After eight months they repaid this loan, and in late September 1996 borrowed a second-cycle loan of 100,000 riels under the same terms. In fact, they borrowed an additional 60,000 riels under the name of another villager to circumvent the household ceiling of 100,000 riels. Chao and Khom planned to use the 160,000 riels borrowed from the credit scheme to finance their palm sugar production in the forthcoming year.

Off-Farm Migrant Work

When their sugar production diminished, Ren Khom sought opportunities for off-farm migrant work with others from the village. In March 1996, he earned 30,000 riels for two weeks of digging and carrying soil to build fish ponds in Kandal province. In May 1996, he returned and earned 25,000 riels for another two weeks of this work. Pheap Chao and Khom used the money he earned to buy milled rice in Bat Doeng. In August 1996, Khom earned 5,000 riels per day for two weeks building a large house in nearby Kakab village. Khom had never gone to Phnom Penh to work.

Other Livelihood Pursuits

Chao and Khom owned two oxen and one cow and raised two hens. The couple also planted vegetables and fruit trees on their large house lot. Their son No looked after the livestock and caught fish and crabs for household consumption. No and Khom caught frogs and, when they caught a large amount, sold 40 for 2,500 riels to villagers in Trapeang Prei and Trapeang Kralong. No and Khom also gathered wild plants such as morning glory and water lily stalks for household consumption.

Health

Pheap Chao often had fevers and would go to Bat Doeng market to buy medicine prescribed by the owners of small pharmacies. Her husband and children also took tablets, but they were not ill as often as she was. Chao could buy medicine on credit without interest, and in late 1996 owed 50,000 riels. "We do not go to the district health centre because the costs are the same," said Chao. "Health care workers employed by the government also prescribe medicine that has to be bought in the market."

3) The Household of Am Chea

Am Chea was a first cousin of Pheap Long and Pheap Chao. Her mother, Sam Leng, was a sister of their mother. Thirty-one-year-old Chea lived in Trapeang Prei with her mother, her second husband and her three young children. Chea had a daughter from her first marriage, and a daughter and son from her second. Her second husband, 44-year-old Huot Va, was previously married and was said to have extramarital liaisons outside the village. Va was a Khmer healer from Kompong Cham province and was often away from the village selling traditional medicine and healing.

Chea was virtually landless. Her mother had sold a small parcel of rice land in Trapeang Prei to Pheap Long. Although her father had inherited rice land in a nearby village, his distant relatives would not recognise Chea's claim to the property after he died. Chea nevertheless cultivated a small plot on her house lot with rain-fed rice and obtained two to three baskets of paddy rice each year. In the 1995 crop season, Chea did most of the cultivation tasks by herself. A relative ploughed and raked for her without cost.

Farm Labour in Rice Cultivation

Without land resources of her own, Am Chea worked as a farm labourer in rice cultivation to earn cash to support the household. In the 1995 crop season, she hired out her labour to rice farmers in Trapeang Prei and in the neighbouring villages of Trap Kreng, Tuk Aok, and Pal Hal. Work outside the village included two meals per day. Chea came home at noon to breastfeed her baby and returned home again at the end of the day. Her mother cooked and looked after the children while she was away.

In the 1995 season, Chea earned 20,000 riels from pulling seedlings and transplanting. Her earnings were based on the number of *plons* (bunches of 40 seedlings) she pulled or transplanted. The rates inside the village for pulling seedlings and transplanting were 1,000 and 1,100 riels per *plon* respectively. The rates outside the village were 1,200 and 1,300 riels per *plon*. In one day, Chea was able to pull two to three *plons* of seedlings or transplant one and a half *plons*.

In the 1995 season, Chea earned 20,000 riels from harvesting. The rate both inside and outside the village was 200 riels per *plon* harvested. In one day she could harvest five *plons*. Sometimes she helped the farm owner to cook and clean up and was paid up to one basket of paddy rice. One basket of paddy rice was worth about 2,500 riels at the harvest.

In the last crop season, Chea's husband Huot Va did not work as a farm labourer for others. He mostly gathered roots and plants from the forests to make traditional medicine. He often went to Prek Pnov in Kandal province to sell the medicine and to heal people. "Sometimes he brings home 10,000 to 15,000 riels," said Chea. "Sometimes only cakes."

At the harvest in 1996, Chea bought five baskets of paddy rice at 2,500 riels per basket from her wages. As the year went on she bought milled rice, but never more than 5 to 10 kg at one time. One kg of milled rice cost 650 riels at the harvest and 700 riels later in the year. Chea could not afford the 500-riel round-trip horsecart fare to Bat Doeng, so she walked the 3 km there and back to buy the milled rice.

Other Livelihood Pursuits

On a small parcel of non-arable land owned by Chea's mother were 11 palm trees that no longer produced juice. Chea and her mother made thatch from the palm leaves. They paid someone 500 riels per tree to cut down the leaves. They then stitched the thatch and sold up to 100 pieces a year for 80,000 riels. On her house lot, Chea grew vegetables for household consumption. She had tried without success to grow fruit trees.

During the 1996 dry season, Chea and her husband left the village to work digging and carrying soil by the cubic metre for earthwork construction. They bought the youngest child with them and left the other two children in the care of Chea's mother. They stayed with their employer and bought food from their wages. They worked for half a month, returned home for half a month, and then went out again. They worked until the end of the dry season and earned a total of 100,000 riels.

Credit

In January 1996, Chea borrowed a first-cycle loan of 60,000 riels at 4 percent interest per month from the village credit project. Eight months later she sold a pig to repay the loan. In late September 1996, she borrowed a second-cycle loan of 100,000 riels at the same interest rate. In each instance, she borrowed the money to buy rice for household consumption.

In the years before the credit project, Chea normally borrowed money at usurious terms. In 1995, she had borrowed 10,000 riels from a village moneylender at 4 percent *daily* interest. She repaid this loan in 10 days from off-farm earnings. At these terms, she was not able to make long-term loans.

Surprisingly, in 1996 Chea still borrowed sums ranging from 4,000 to 5,000 riels from the moneylender at 4 percent daily interest to pay for medicine at Bat Doeng market. "Each year I borrow from the moneylender," said Chea, "but I try to earn and pay back quickly."

Case Two

The Story of Chak Phak and Kin

1) The Chak Phak Family Household

Chak Phak, a locally born resident of Trapeang Prei, had six children, three of whom were married. Neither Phak nor her children were literate. In 1996, the 56-year-old widowed Phak lived in a small house with her three unmarried daughters: 18-year-old Krui Va, 16-year-old Krui Srey and 10-year-old Krui On.

Phak's married children were: a 28-year-old daughter, Krui Chen; a 25-year-old son, Krui Cheoun; and a 20-year-old daughter, Krui Mom. Chen and her husband Suos Sem lived with their two young children in Trapeang Prei on the same house lot as her mother. Cheoun had settled in his wife's village in Kandal province. Mom and her husband Soth Sokum lived with his family in Kandal, though at times during the year, especially after the fishing season, the couple and their young child stayed with Chak Phak in Trapeang Prei.

Rice Cultivation

Chak Phak had four small plots of inherited rain-fed rice land that amounted to about 0.5 hectares. Phak had also given a small 0.1-hectare plot to her married daughter Krui Chen. Phak had not shared any land with her other two married children, nor had she sold any land.

In the 1995 wet crop season, the households of Phak and Chen helped each other to cultivate the entire five plots and Phak shared a portion of her harvest with Chen and her husband. They used traditional varieties without fertiliser and hired labour only for ploughing and transporting the harvest home. They did not use irrigation or threshing machines.

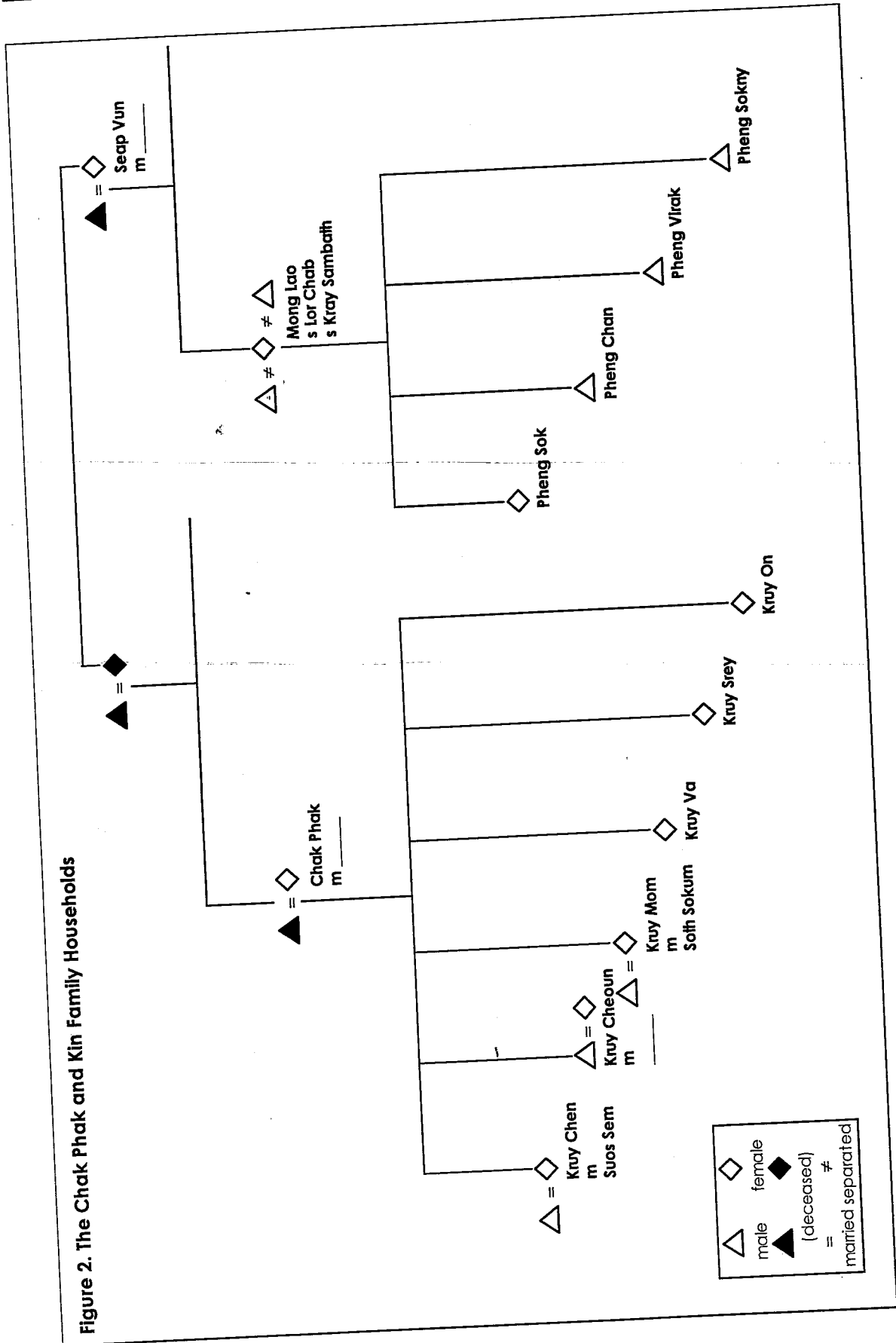
Ploughing—In the 1995 crop season, Phak hired a neighbour to plough her four rice plots at a cost of 12,000 riels for four mornings of work. Her daughter Chen also hired the neighbour to plough her one small plot. Phak had no draught animals. Chen had only a young ox and a cow.

Sowing—Phak and Chen sowed their own seedbeds.

Pulling seedlings—Phak pulled seedlings with her daughters Va and Srey. Chen and her husband Sem helped them. When the work on Phak's plots was completed, Va and Srey helped to pull seedlings on Chen's plot. Phak looked after Chen's two young children.

Transplanting—Phak transplanted with Va and Srey, and again they were helped by Chen and Sem. Va and Srey then transplanted on Chen's plot while Phak looked after Chen's children. There was no irrigation on any of the plots.

Harvesting—Phak harvested with Va and Srey and received assistance from Chen and Sem. Va and Srey harvested Chen's plot in return.



Transporting harvested rice—Phak and Chen hired their neighbour to transport the harvested rice to their homes with his oxcart and draught animals. He hauled four ox carts of harvested bundles and was paid in rice straw threshed from these bundles.

Threshing—Sem threshed the harvested rice from all five plots by hand. He was helped by Chen, Va and Srey.

Milling—Phak and Chen milled their paddy rice at the village chief's rice mill. In earlier years, they had milled their rice at Bat Doeng market.

Rice Production

Chak Phak's household—In the 1995 crop season, Chak Phak harvested seven sacks (50 baskets) of paddy rice on her 0.5 hectares (1.4 tons per hectare). From the total yield she shared 10 baskets with Chen and Sem for their help with cultivation tasks. Phak also spent 20 baskets of rice to repay a loan of 10 baskets borrowed before the harvest. What remained was 20 baskets of rice for household consumption. "We lived on the 20 baskets for about two months," explained Phak. "Then we had to buy rice with our earnings to survive." By October 1996, Phak had borrowed six baskets of paddy rice from a trader in Bat Doeng market with terms to repay the loan with 10 baskets of paddy rice at the harvest.

Krui Chen's household—In the 1995 season, Krui Chen harvested 1.4 sacks (10 baskets) of paddy rice on her 0.1-hectare plot of land (1.4 tons per hectare). In addition, Chen and her husband Sem received about 10 baskets of paddy rice from her mother for their help in the cultivation of her plots. From the total, Chen spent 10 baskets of paddy rice to repay a six-basket loan made from a Bat Doeng trader before the harvest. By October 1996, Chen had borrowed three baskets of paddy rice on two separate occasions from the same trader with terms to repay each loan with five baskets of paddy rice at the harvest. "We do not borrow from relatives and neighbours," said Chen. "They are unable to lend to us. And if they were, they would charge us the same interest."

Farm Labour in Rice Cultivation

Chak Phak's household—Chak Phak and her daughters Va and Srey hired out their labour to others in rice cultivation. In the 1995 crop season, they each transplanted for two days for the village chief and another better-off villager in Trapeang Prei and earned a total of 15,600 riels. The wage rate in Trapeang Prei for transplanting was 1,300 riels for one *plon* (40 bunches) with no meals provided. Phak and her daughters were each able to transplant two *plons* a day. There was little work available for farm labourers in Trapeang Prei.

To take advantage of labour opportunities elsewhere in rice cultivation, Chak Phak and her daughters travelled outside the village. Often they went with other Trapeang Prei villagers. In the 1995 wet crop season, Phak, Va and Srey journeyed to Bek Chan village in Ang Snuol district of Kandal province, and stayed for seven days at the home of their employer. In Bek Chan, they pulled seedlings for three days and transplanted for four days. Their total earnings for the week was 60,000 riels. The wage rate in Bek Chan for pulling seedlings was 1,000 riels per *plon* plus three meals. The daily wage rate for transplanting was 2,000 riels plus three meals. Phak's married daughter Mom and her husband Soth Sokum also went with her to work in the rice fields of Bek Chan.

In the 1995 wet crop season, Phak and Va travelled to Treb village in Ang Snuol district for half a month to work as harvesters. Srey did not go because she was ill. The wage rate in Treb for harvesting was 3,000 riels per *sloek* (10 *plons*) plus three meals and accommodation. After half a month's work as harvesters, Phak and Va together earned about 90,000 riels. They stayed with the family they had worked for the previous year.

After the wet season harvest, Phak, Va and Srey travelled to Pong village in Mukh Kampul district of Kandal province to pull seedlings and transplant the 1995/96 dry season rice crop. They stayed with their employer for 10 days and earned a total of 56,000 riels. The wage rate for pulling seedlings in Pong was 800 riels per *plon* plus three meals and accommodation. Together, they could pull 10 *plons* per day. The daily wage rate in Pong for transplanting was 2,000 riels plus three meals and lodging.

In the 1995/96 dry season, Phak, Va and Srey returned to Pong for half a month to harvest the rice. The wage rate for harvesting in Pong was 2,500 riels per *sloek* (10 *plons*). The three earned 7,500 riels per day plus three meals and accommodation for a total of 112,500 riels over 15 days.

In the wet crop season of 1995 and the dry crop season of 1995/96, Phak, Va and Srey, earned a total of 334,100 riels from work as farm labourers. Of the total, 318,500 riels (95 percent) was earned outside Trapeang Prei.

Krui Chen's household—Krui Chen hired out her labour in rice cultivation only in Trapeang Prei. She did not work outside the village because she had to take care of her two young children. In Trapeang Prei, she worked for better-off villagers such as her uncle, the brother of her mother, Chea Hao. Normally, she gave her 10-year-old sister On 300 riels per day to look after the children while she worked in the rice fields. Chen's husband Suos Sem did not work as a farm labourer.

In the 1995 wet season in Trapeang Prei, Chen earned about 90,000 riels from pulling seedlings, about 36,000 riels from transplanting and about 30,000 riels from harvesting for a total of 156,000 riels. Chen used most of the money to buy rice and salted or smoked fish. The wage rate in Trapeang Prei for pulling seedlings was 1,200 riels per *plon* and Chen could pull up to three *plons* per day. The wage rate for transplanting was 1,300 riels per *plon* and she could transplant up to two *plons* per day. The wage rate for harvesting was 300 riels per *plon* and she could harvest up to eight *plons* per day.

Off-Farm Migrant Work

Chak Phak's household—After the 1995/96 dry season rice harvest, Phak, Va and Srey went to Kandal province with other Trapeang Prei villagers to build earthworks. "I am too weak to dig and carry the soil," said Phak. "But I go with my daughters to cook and look after them. I am afraid that they will be kidnapped. I watch them carrying the heavy loads and I feel so sad that I begin to cry." For half a month of work digging and carrying soil, Va and Srey were able to earn about 50,000 riels. They used the money to buy milled rice and clothes.

Krui Chen's household—From March to April 1996, Krui Chen's husband Suos Sem travelled to Mukh Kampul district with other Trapeang Prei villagers to build fishponds and upgrade house lots. Sem earned from 2,500 to 3,000 riels for every cubic metre of soil dug and carried. Depending on the availability of the work, he stayed up to four weeks and brought home from 70,000 to 100,000 riels each time.

Other Livelihood Pursuits

Chak Phak's household—Chak Phak had seven palm trees on her rice field and at one time leased them to a palm sugar producer for 20 kg of sugar per season. In the 1996 season, the producer did not cultivate the trees because of a lack of available firewood. Phak did not cultivate vegetables on her house lot. Usually she bought vegetables or pulled water lilies from the village ponds.

Occasionally, Phak went with other village women to gather wild candle potatoes in a forested area of Kompong Speu four hours from the village. The women normally left early in the morning and arrived back in the village at sunset. After walking and working all day,

Phak was able to gather one basket of wild potatoes which she could exchange for one basket of paddy rice.

At times, Phak asked permission from Trapeang Prei villagers to collect the fruit from their tamarind trees. Her daughter Srey gathered the tamarind from the trees and Phak sold it for 100 riels per bunch or one can of milled rice for two bunches. When she had one basket or more, Phak sold the tamarind in neighbouring villages. Srey carried the baskets for her mother, though she herself was embarrassed to sell the tamarind from house to house.

Va and Srey caught crabs and snails to supplement the household diet. They also gathered firewood for their own use. The daughters stitched palm leaves and repaired the house.

Kruy Chen's household—Kruy Chen cultivated bananas and vegetables near her home for household consumption. She also gathered vegetables and firewood in common areas with her husband Sem. In 1995, the couple purchased one young ox and cow for 300,000 riels with savings from Sem's migrant work. They planned to sell these livestock for cash or, alternatively, to use them for ploughing and raking in rice cultivation. The poultry they had raised had died in the previous dry season.

Sem caught frogs, crabs and snails mostly for household consumption. From the sale of 80 frogs he could earn 5,000 riels. The couple bought fresh fish from vendors in the village and made *prahoc* (salted fish) to last them through the year.

Credit

Chak Phak's household—In January 1996, Chak Phak borrowed 60,000 riels at 4 percent interest per month in the first cycle of the village credit scheme. She used part of this loan to buy a large water jar and to contribute to village ceremonies. Phak made interest payments each month and paid the principal in September 1996 with household wage earnings.

In September 1996, Phak borrowed 50,000 riels under the same terms in the second cycle of the credit project. Interest was due monthly and the principal at the end of May 1997. She used the money to buy milled and sticky paddy rice and other food. She planned to pay the monthly interest of the loan with earnings from the sale of wild potatoes and tamarind.

Kruy Chen's household—Kruy Chen borrowed 20,000 riels in the first cycle of the village credit scheme and 50,000 riels in the second. The interest of both loans was 4 percent per month. She used the money to buy rice and other food. "We do not borrow much from the credit scheme," explained Chen, "because we do not want to owe too much."

Health

Chak Phak's household—When Chak Phak's daughter Va fell ill in early 1996, she was treated at a private health clinic in Bat Doeng and by traditional healers. Phak spent 160,000 riels to treat her. Phak paid the medical expenses from the sale of her gold earrings: assets which had been in her possession for many years. When Phak herself became sick she did not go to the hospital but simply bought medicine for around 2,000 to 4,000 riels prescribed by the owners of the small pharmacies in Bat Doeng.

Kruy Chen's household—Members of Kruy Chen's household had not been seriously ill. When they were ill they likewise bought medicine prescribed by the pharmacists in Bat Doeng. They had never gone to the hospital. When Chen's youngest child was born, they paid 65,000 riels for the health worker in Bat Doeng to come to their home.

External Assistance

Chak Phak's household—About two years earlier, Chak Phak had been identified as one of 10 woman household heads in Trapeang Prei to receive food aid from the World Food Programme through the Cambodian Red Cross. As a designated beneficiary, she received four cards that allowed her to receive 50 kg of milled rice from the commune over a four-interval period. When Phak and the other nine women recipients received their first 50 kg of milled rice they were asked by a commune official to relinquish their remaining cards for future notification. When the women returned for their second instalment, they were told that the rice stocks were exhausted. They received no subsequent assistance.

Kruy Chen's household—In 1994, an announcement was made at a village meeting that those who dug ponds would receive milled rice as food for work. Kruy Chen's husband Suos Sem dug a pond near their house but received no food for the work.

2) The Mong Lao Household

Mong Lao, a first cousin of Chak Phak, lived with her mother and four children in Trapeang Prei. Lao had been married twice: from 1979 to 1983 to Lor Chab and from 1988 to 1989 to Kray Sambath. Lao lived with Chab in his own village until he took a second wife and started to find fault with her. Lao refused to accept this and returned home to Trapeang Prei with her three small children. Her second husband, Sambath, treated her children unkindly. Lao was pregnant with his child when she forced him to leave their home. "I do not care to have any more husbands," Lao explained. "I had a difficult life and had to work hard when the children were young." In 1996, Lao was 42 years old and her mother was 76. Lao had three children from her first husband and one child from her second: a 17-year-old daughter, Pheng Sok; a 16-year-old son, Pheng Chan; a 14-year-old son, Pheng Virak; and a seven-year-old son, Pheng Sokny.

Mong Lao had lived through the Khmer Rouge period in Trapeang Prei and left under the People's Republic of Kampuchea. In 1979, the government's *krom samaki* system was established and for a few years villagers practised cooperative farming on their former family lands. When Lao returned to the village in 1983, she received 0.3 hectares of rain-fed rice land as her inheritance. In the mid-1980s, Lao sold this property for 1.5 chis of gold to buy food for her children and to pay for the medical expenses of her mother. Lao retained one small plot of rice land, though she did not cultivate it due to its low yield.

Farm Labour in Rice Cultivation

Mong Lao and her children earned a major portion of their livelihood from hiring out their labour to others in rice cultivation. In the 1995 wet crop season, Lao with her daughter Sok and son Chan earned 240,000 riels from pulling seedlings and transplanting. In the same season, Lao with Sok, Chan and her son Virak earned a total of 80,000 riels from harvesting.

In the 1996 wet crop season, Lao, Sok and Chan earned a total of 150,000 riels from pulling seedlings and transplanting. In 1996, Virak went to live and study at a nearby pagoda and no longer joined his mother and older siblings as a farm labourer. Sok and Chan had never gone to school.

Lao and her children worked in the rice fields of Trapeang Prei. They also travelled to other villages to sell their labour in rice cultivation. They worked in various communes in Odong and Samraong Tong districts in Kompong Speu and Ang Snuol district in Kandal. As migrant farm labourers in other villages, Lao and her children were provided accommodation and three meals. In Trapeang Prei, they lived at home and provided their own meals. Of the 470,000 riels that the household earned as farm labourers in 1995 and the first half of 1996, 360,000 riels (77 percent) was earned outside Trapeang Prei.

Although the wage rates for pulling seedlings, transplanting and harvesting were different from one village to the next, they were all based on piecework, i.e. the number of *plons* completed. "The workers accept the price offered to them," said Lao. "Otherwise someone else would be hired." In Trapeang Prei, Lao earned 1,000 riels per *plon* for pulling seedlings and 1,200 riels per *plon* for transplanting. She also earned 300 riels for every *plon* harvested.

Off-farm Migrant Work

In the dry season of 1996, Mong Lao, her daughter Sok and son Chan travelled to Mukh Kampul district in Kandal to dig and carry soil for the upgrading of house lots. They worked for about two months before and after Khmer New Year in mid-April. Lao and her children were paid 2,000 riels per cubic metre for the earth that they moved. Working together, they were able to move three and a half to four cubic metres per day and, in the two-month period, earned 100,000 riels. They slept at the work site and provided their own meals. Lao bought her youngest child Sokny with them. Lao's mother stayed at home in Trapeang Prei and cooked for herself. Sometimes the neighbours gave her a bowl of soup. Lao had heard about the work in Kandal from other villagers.

Other Livelihood Pursuits

When Mong Lao returned to the village from building earthworks in Kandal province she used a portion of her earnings as capital for making palm cakes. Her children sold the cakes in Trapeang Prei and in neighbouring Trapeang Thma village and earned up to 3,000 riels per day or the equivalent in cans of milled rice.

Lao cared for one cow under a *provas* agreement with a distant relative. Lao also raised three hens. Sok and Chan caught crabs in the rice fields. Chan also caught frogs at night. Both children collected firewood and carried water from the village ponds to their house. Lao and her children gathered water lilies from the ponds and grew squash around the house.

Lao's elderly mother wove mats from palm leaves for drying paddy rice, and in 1996 earned 30,000 riels for Pchum Ben festival preparations. At Pchum Ben, Lao's brother and sister travelled from another province to visit their mother in Trapeang Prei. They each gave her 1,000 to 2,000 riels.

Credit

In September 1996, Mong Lao borrowed five baskets of paddy rice from a trader in Bat Doeng market with interest of two baskets to be repaid with the principal at the harvest. In October 1996, she borrowed three baskets of paddy rice without interest from the village chief. Out of gratitude, she intended to repay this loan with four baskets of paddy rice at the harvest. Lao's household consumed about 60 kg of milled rice per month. Lao had no rice land of her own to harvest, but she used her household's wages from harvesting to buy paddy rice from village farmers.

Lao borrowed from both cycles of the village credit scheme. In January 1996, she borrowed a first-cycle loan of 60,000 riels at 4 percent interest per month. With the borrowed money she bought a pig for 40,000 riels, purchased ingredients for making palm cakes, and used the rest to buy rice and other food. Two months later, she sold the pig for 80,000 riels. In September 1996, she made her final payment on the loan.

At the end of September 1996, Lao borrowed a second-cycle loan of 100,000 riels at the same interest rate. She spent a portion the loan on food containers, a rice pot, a rechargeable battery to operate the radio, medical expenses, and food purchases. The interest on Lao's loan was due monthly and the payment of the principal in May 1997.

Lao paid 500 riels for a round trip to Bat Doeng market by horsecart. Sometimes her oldest son Chan walked the 6 km to the market and back to buy milled rice.

Health

Lao's mother did not have any serious illnesses. When she felt sick she asked a neighbour to massage her with a coin in the traditional method known as *kos khyal*. Lao herself likewise never had any serious sickness. Only her youngest son was sickly. Lao had the traditional healer attend to him, though she admitted that she would treat him in the hospital if she had the money.

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