

# WOMEN IN RICE FIELDS AND OFFICES IRRIGATION IN LAOS

Gender specific case-studies  
in four villages



Loes Schenk-Sandbergen  
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Women in rice fields and offices : irrigation in Laos  
Gender specific case–studies in four villages.

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**Photo's cover:**

1. Women staff with son before the provincial irrigation office
2. Fetching water out of the irrigation canal in Bung San

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## ABBREVIATIONS AND GLOSSARY

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<b>ADB</b>	Asian Development Bank
<b>DAFSO</b>	District Agriculture and Forestry Service Office
<b>DIS</b>	District Irrigation Service
<b>DLWU</b>	District Lao Women's Union
<b>DOI</b>	Department of Irrigation
<b>GOL</b>	Government of Lao PDR
<b>LWU</b>	Lao Women's Union
<b>MAF</b>	Ministry of Agriculture and Forestry
<b>NGO</b>	Non-Government Organization
<b>PAFSO</b>	Provincial Agriculture and Forestry Service
<b>PIS</b>	Provincial Irrigation Service
<b>PLWU</b>	Provincial Lao Women's Union
<b>SIRAP</b>	Sustainable Irrigation Agriculture Project
<b>SRIDP</b>	Strengthen and Restructuring of Irrigation Development Project
<b>TOR</b>	Terms of Reference
<b>TTIS</b>	Tad Thong Irrigation School
<b>VLWU</b>	Village Lao Women's Union
<b>WID</b>	Women in Development
<b>WUG</b>	Water User Group
<b>WUO</b>	Water Users Organisation
<b>Ban</b>	Village
<b>Hai</b>	Slash-and-burn fields in the uplands
<b>Khok tam</b>	
<b>khao</b>	Rice poulder
<b>Na</b>	Rice fields in the lowlands
<b>Nai Ban</b>	Village head
<b>Mayphia</b>	Bamboo knife used to cut the umbilical cord
<b>Pha Chia</b>	Cloth in which babies are carried
<b>Phi fah</b>	Sky spirit
<b>Phi huen</b>	Ancestor (house) spirit
<b>Po Ban</b>	Village head
<b>Teen sin</b>	Ornamented border of Lao skirt
<b>You kam</b>	First month after delivery with special care for mother and baby
<b>Kip</b>	Lao currency, one US dollar = about 774 kip (July 1995)
<b>Baht</b>	Currency of Thailand, one US dollar = 24 Baht: and one Baht is around 32 kip
<b>USD</b>	United States dollar

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During the collecting of data we were supported and accompanied by marvellous women representatives of the central and provincial level working in irrigation, and women of the Lao Women's Union (LWU) of various levels. It is impossible to mention all names, but we are particular grateful to Mrs Petsamone Seng Muang (DOI), Mrs Othong Phachomphonh (DOI), Mrs Maiwong (Provincial LWU, Xieng Khouang), Mrs Phomma Thammavong (District LWU, Vang Vieng), Mrs Shivan (Village LWU, Vieng Xay), Mrs Kouella (PLWU, Khammouan), Mrs Napha Sayakoummane, Vice President LWU, Khammouan Province, Mrs Sompith Inthalangsy (assistant SRIDP).

It was a great privilege to travel with these exceptional, warm and admirable women along dusty

roads, sometimes in old Russian jeeps. Women who have sacrificed part of their youth, their personal happiness for the sake of their country.

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We are extremely thankful to the Royal Netherlands Embassy in Bangkok, which funded the publication under its 'Special Activities Programme'.

It is with immense gratefulness that we remember the unique encounters in villages with wonderful Lao women of various ethnic communities. There, over the mountains and through rivers, we met the old lean grandmother and it was as if we had known her already for a long time. She showed us her small basket with earthworms and bamboo shoots, the yield of hours searching in the forest for the evening soup. We will never forget the gladness of the admirable strong Hmong women about the fact that women from 'outside' were interested in their problems and joys in life. We remember the talks with the young charming teenage girls while carrying the heavy yoke with two water buckets, or sitting next to them on the wooden shelf of the weaving loom on which they made their beautiful Lao skirts. We remember well the young Xieng Khouang girls making reinforcing cages for the concrete construction of the irrigation dam, and the women in Vieng Xay digging irrigation canals shoulder to shoulder with the men. Each encounter has its own infinite value, but the striking similarity we found during our gender specific studies is the overwhelming vital role women have in the survival and the development of the family, the community and the country. The natural and powerful way in which they shoulder their many tasks as mother, wife, farm-woman, forager, weaver, buyer, seller, deserves all our respect and admiration. But, we are not so much 'gender-biased' that

we will easily forget the young father carrying his two-day old son in the red flower cloth on his body, and bringing his wife strengthening food after the delivery. The same holds for the husband of Kamla who was permanently disabled by fragmentation bombs, parts of which are still in his body and cause unbearable pains 25 years after the war. Kamla lost seven children and raised six alone; she saved twenty years for an operation for her husband which eventually proved to be impossible.

Above all we are very indebted to all these wonderful women and men in the villages we have met and talked with, and from whom we have learned such wise lessons of life. Without their friendship and cooperation this study could not have been conducted. Therefore, we dedicate this small book to them.

Outhaki Choulamany-Khamphoui

Loes Schenk-Sandbergen

Vientiane, June 1995.



*WID specialist talking with girls doing voluntary labour for the irrigation scheme.*

## PREFACE

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Women in Development' studies are as yet an almost unknown field of knowledge, science, experience and application in Laos. But the importance of the subject is increasingly recognized, and in the past five years we have witnessed the publication of a growing number of interesting articles and reports (Carol Ireson 1992; Unicef 1992; Escoffier-Fauvcau 1994) and a pioneering book (Ngaosyvathn 1993) on women in Laos.

In view of the still existing lack of data, in particular on rural women of various ethnic communities, we thought that it might be useful for a broad group of interested readers to publish a small book on the gender specific data we collected on 'the role of women in irrigation, and development' in four villages in the framework of an institutional irrigation project, the Strengthening and Restructuring Irrigation Department Project (SRIDP). Therefore the book is written for various categories of readers, such as the staff members working in NGOs, and various other foreign funded projects and programmes, Women and Development staff involved in practical work, intellectuals, government officials, women (and men) interested in women's studies, but, may be, also for the interested visitor who wants to know more about Laos than the average tourist.

We hope that our publication will contribute to gain insight into the unique history and cultural heritage of women's roles and gender relations in Laos, which are the foundations of the very strong and emancipated position of the majority of Lao women. Laos is one of the very few countries left in the world in which matrilineal kinship and residence patterns, and matrilineal inheritance patterns still exist for a large group of women. In so many other countries – for instance, African countries and India –, these favourable gender systems, which implies a high status and power for women have been destroyed by the penetra-

tion of capitalist-patriarchal modernization processes. If we take an overall look at the world and compare the position of the majority of women in Laos with those of women elsewhere, perhaps it is justified to state that they rank very high in terms of status, power and autonomy: in many places they live in an ecologically sound, non-exploitative, just, non-patriarchal, self-sustaining society. These are qualifications which are presented in women's studies as the ideal vision and circumstances for the life of present and future generations of girls and women, which should be pursued by all kinds of women's organizations in other parts of the world.

Certainly, we are aware that we should not generalise, or even romanticise, the present condition of all Lao women, as there are also patrilocal and patrilineal communities where sex discrimination is dreadful, and the life of women is very hard. But even then our study reveals that the influence of the dominant matrifocal Lao Lum Culture has a positive radiation on the social environment of women living in such a subordinated position.

Any visitor to Laos will confirm that Lao women look very emancipated. This impression is easy to get, just by watching the street scenery in peak hours in Vientiane and seeing so many Lao women in their beautiful 'Lao skirts'<sup>1</sup> on their motorbikes rushing to their offices, companies, shops, marketplaces, banks, schools. Also the country women, visibly different by the batik shirts and big triangle shaped heads, selling vegetables in the streets of Vientiane while carrying heavy baskets or pushing handcarts with shining pears, apples, grapes, look very strong and independent. The foreign visitor will be impressed to observe that in Talat Sau (morning market) the large majority of women are gold and silver traders, and money exchangers. The visible role women play in the local and national economy of the country is striking and impressive. It

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<sup>1</sup> Lao skirts are very characteristic and beautiful by their style, designs, materials, and tailoring. Moreover, they are practical as the skirt looks slim but owing to the broad front pleat it offers enough space to cycle, to run, (as appropriate in the context of this book) to dig irrigation canals.



is striking while it seems to be self-evident that women are dominant in public, formal domains which are colonized in many other societies by men. The same holds for a swift observation in rural villages and small towns: visit the market and you will see only women buying and selling, and dominating the local money circuit and the local economy.

However, the intention of our book is to look deeper into the fabric of society and to express our concern for the negative consequences that might be generated by the introduction of the new economic policies and the related process of economic liberalization and modernization in which Laos is involved at the moment. 'Women in Development' (WID) studies show that modernization processes which have blindly followed imported dominant models, have often been detrimental for the former relatively favourable role and position of women. The main causes of the marginalization of women have been exclusion from productive resources (new private property land rights, wage labour, technology, credit, education) and denial of access to, and control over, crucial levels of decision making, planning and management which have been monopolised by men.

Our small study will show that in this context, the unique Laotian socio-economic structure, culture and related favourable gender relations have to be protected and strengthened. We found already alarming indications of a gradual undermining of the great matrilineal Lao tradition as a consequence of the present economic and cultural transformation process. This will be a disaster for the universal value of gender equality and the life and work of the Lao women itself, but also for the overall economic, and in particular rural development and progress of the country at large, as women form more than half of the creative, innovative, and (re)productive population.

Lao women deserve it to benefit by the experience of mistakes made in other countries regarding the development of women, which often became

maldevelopment. These same mistakes should be prevented in Laos. Therefore, it is with great enthusiasm and commitment that we present the data of our specific gender studies, and hope that our suggestions on action and interventions can contribute a little bit to the strengthening of women to maintain their powerful resource bases and to develop themselves, their families and the country.



*Girl Volunteer crossing the irrigation canal*

# 1 INTRODUCTION

---

*The policy is clear: irrigation development is for all. But the paradoxical situation is, that irrigation development costs much money, and that in particular the poor villages need irrigation and have no money.*

(Quotation participant workshop in Phonsavan, Xieng Khuang)

## 1.1 BACKGROUND

The revolution in Laos, compared with other revolutions in recent times, left the basic structure of the country remarkably intact. For three centuries Laos had been at war with Siam, Burma, Vietnam, China, Japan, the French colonists and the United States. The character of the Laotian revolution was very different from other nationalist and socialist movements. The sociologist Grant Evans (1990) points to the fact that there was no mass based peasant discontent directed at onerous landlords. The promise of land reform was not a major objective in the Lao People's Democratic Republic<sup>2</sup> political ideology: 'no land to the tiller', not 'away with the feudal regime of land ownership' (Evans, p.41). The most important cause of misery was perceived as the use of backward techniques of production. Outdated technology, rather than the maldistribution of land was the main problem of the Pathet Lao, the Communist movement<sup>3</sup>. The Pathet Lao's appeals to the Lao peasantry were therefore largely **nationalist**.

Another striking difference of the agrarian structure was, and still is, that a class of landless farmers and the related wage-labour structure did, and still does, hardly exist. And as far as landlessness exists, this was,

and is, not due to exploitation. Landlessness is a consequence of the continuous war conditions with its refugees and war migrants, and a consequence of re-settlement policies, as we will see in our case-studies of village Dong Dan and Nong Jama.

In 1963 the leaders in the White House ordered a 'secret war'. During a decade B-52s bombarded the Northeast of Laos, home base of the Pathet Lao, and the so-called 'Ho-Chi Min trail' in the South. From 1968 to 1973, Laos suffered the heaviest aerial bombing in the world history: 580,000 bombing missions, or the equivalent of one plane load of bombs every eight minutes around the clock for nine years. Flying from Vientiane to Phonsavane, the new capital of Xieng Khuang province as the old one is still destroyed, the terrible damage caused by the bombing is still very visible by the numerous bomb craters that can be seen in paddy fields and forest areas<sup>4</sup>. Invisible is the suffering of the people who went through these traumatic events. The case-study of the village Nong Ja Ma will show how the people have to cope until now with the tragic aftermath of the bombing.

Regarding the perception of the role of women

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<sup>2</sup> For the sake of the readability of the book the official name of Lao People's Democratic Republic (Lao PDR) will be abbreviated as Laos.

<sup>3</sup> The Pathet Lao (Lao Nation) emerged out of the Neo Lao Issara (Free Lao Front) founded in 1950, the precursor of the Lao communist party formed in secret in 1955, and the Neo Lao Hak Sat (Lao Patriotic Front), established in 1957 (Evans 1990, 42).

<sup>4</sup> The Mennonite Central Committee and the Mines Advisory Group have launched a \$1 million project which will include intensive training, ordnance clearing and community education. The Vientiane Times of June 9-15, 1995 (p.5) reports that, 'there is "hope for movement soon" on the question of American assistance to clear bombs, or unexploded ordnance. American assistance might take the form of prosthetic help to war victims, building of schools, pumps for irrigation, building of roads etc.'

in society we have to state that in the zone under Pathet Lao control, the revolutionary movement made a serious effort to change the conservative view on gender relations, and to propagate and practice the equality between women and men. Documents and historical photographs testify the important role women played on an equal footing with men in the revolutionary movement<sup>5</sup>. However, as the historian and Lao expert Stuart-Fox writes in the foreword of the book of Ngaosyvathn (1993,2), 'for women in the Pathet Lao movement, as for everyone else, the first priority was survival.' There was not much opportunity and time to bring the equality ideology between men and women in practice under normal conditions. Hopefully, with the development of women's studies in Laos this unknown history of the role of women in the revolutionary movement will become visible, recorded and acknowledged.

The communist party came to power in Laos in late 1975 arising out of the Vietnam War. Many civil servants, military officers, intellectuals, Chinese merchants and businessmen who had supported the Royal Lao Government left the country in panic to Thailand, using the Mekong as an easy way to get out.

In 1976 the process of collectivisation started and cooperatives were established. For various reasons (Evans 1990, Bourdet 1995) the system was quickly abandoned<sup>6</sup>. As we will reveal in our case-study, one of our informants characterised the situation at that time as 'the buffalo was eating rice in the paddy field but nobody chased the animal away'. The meaning is that nobody cared for the crop as a result of communal responsibility for food production. Today Laos is a

country of paradoxes. On the one hand it is still in remote places an untouched peasant society. During our study visits to five provinces we found that abject poverty, pollution, or exploitation of landless hardly exists in the rural villages. The degree of self-reliance of peasant families is impressive and looks of what can be called a 'pure and natural economy'. In the villages the Lao peasant households possess as main assets a wooden house on poles, to live and sleep, a rice field (*Na* = lowland or *Hai* = highland fields) of around one hectare, a weaving loom and buffalo under the house, and a small vegetable garden along the edge of the river, or, sometimes on an island in the river. It is as Stuart-Fox (1986) writes: the isolation of a mountain village in Laos has to be seen to be believed.

On the other hand in Vientiane, the capital, it is very visible that the country, as China and Vietnam, is immersed in a breathtaking transformation process from a socialist country to a post-revolutionary state of economic liberalization and capitalist development. Since 1986, the Government of the Lao People's Democratic Republic has placed a great importance on implementing the New Economic Mechanism (NEM) policy: privatization, market economy and foreign investments are encouraged to foster economic development of the country. Nightclubs and disco's are no longer taboo, and Vientiane is humming with walkmans, Japanese motorcycles and cars, Shell, Caltex and other western gasoline stations. In the supermarkets most western consumer articles can be bought. In the villages the rapid expansion of the use of small television sets with a bamboo antenna, often running on batteries, herald the new era of modernisation.

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<sup>5</sup> The documentation and historical photos referred to were exposed in the Museum of the Revolution in Vientiane in November/December 1994.

<sup>6</sup> In the context of this book an interesting hypothesis in relation to gender has been suggested to explain the short life of the cooperatives. In summary, while the formally democratic organization of the cooperative potentially challenges male authority, it does not automatically favour women because the cultural reality of Lao society means that women as a group and individually would most likely hand over their social power to male cooperative leaders and officials. Therefore neither males nor females were spontaneously attracted to the cooperatives. This situation was different in China and Vietnam. The patriarchal power of the heads of household was diminished in the cooperatives (later people's communes), which was welcomed as a liberation by subordinated women, and many examples of female leadership and loyal participation of women at the work team and brigade level are documented. They had more to gain than to lose, whereas that was different in the Laotian situation.

Theravada Buddhism has been accepted 'by itself' as the state religion by the Lao government. Three years ago the hammer and sickle in the national emblem was replaced by the depiction of the 'That Luang pagoda'<sup>7</sup>. The interaction between the traditional values of Theravada Buddhism and Marxism in contemporary Laos is unique in the world-wide context of Marxist adaptations.

The country's constitution, enacted in August 1991, ensures equal rights for both sexes in political, economic, cultural and social fields, and family affairs. The role of the Lao Women's Union is recognized in the constitution as a body for information gathering and service delivery. Among 21 other laws which have been enacted since January 1992, some are related to gender issues. Among these are the Property Law, Inheritance Law, Insurance Law, Labour Law, Family Law, and Election Law. The Government has not included gender issues in its national planning. The Medium Term Policy Framework and Public Investment Programme (PIP) for 1991–1995, approved in December 1991, does not address any gender issues (Takeko Inuma 1992).

## 1.2 FRAMEWORK AND AIMS OF THE BOOK

The content of this book is mainly based on our analysis and findings of studies and action we conducted and initiated in the framework of the Strengthening and Restructuring Irrigation Department Project (SRIDP). The project aims to assist the Department of Irrigation (DOI) in enhancing its role and organization, to enable it to support a more rapid expansion of community managed, government supported irrigation development.

As it was realised during the inception of the project that women in the staff of the Department of Irrigation (DOI), and the women in the rural villages,

can play a crucial role in irrigation development, two 'Women in Development' (WID) specialists, one from Laos and one from the Netherlands<sup>8</sup>, were engaged in the SRIDP; they are the authors of this book. We had to ensure that gender, ethnic and generation issues are properly addressed in the project activities, either within the Department of Irrigation, and/or in the villages. In short we had to answer the question 'how to strengthen the role in irrigation development of rural women of various ethnic groups and age categories, and of the women employed in the Department of Irrigation'. This implies that our attention is directed at two categories of women, which are symbolised in the title of this book as the women in the (irrigated) rice fields, and the women in the (irrigation) offices. The interrelation between the women in the rice field and the office, and how they can mutually strengthen and support each other, is a main focus of our study. It is self-evident that the rather wide question we had to tackle, could only be dealt with by involving the two categories of women as much as possible in our activities. Not only that, but bringing them together in the field to initiate a process of 'learning by doing' was a basic objective of our activities. So, we went with the women of the irrigation offices to the women in the rice fields to conduct simple gender specific case-studies in four villages. After that we invited the women of the rice fields to the provincial irrigation offices to express their problems and perceptions on what the staff in the office could do to assist them in improving their conditions. Finally a gender sensitive planning for the strengthening of the women in the rice fields and the offices was formulated, and preparations for implementation were made. We hope that this participatory step-wise methodology of our gender studies will initiate a process of strengthening of various groups of women in rice fields and offices.

In this context, the book aims:

- To give insight in the main characteristics of

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<sup>7</sup> The That Luang is the largest 'stupa' in Laos, situated in Vientiane, the capital of Lao PDR. It is considered a sacred monument of antique Lao culture related to Theravada Buddhism.

<sup>8</sup> The SRID Project is partly financed by the Dutch Government through the Asian Development Bank.

the position of women in various ethnic groups, in relation to men, in terms of gender division of labour, gender-related access to and control over resources, socio-political dimensions and other influencing factors;

- To highlight the role of farm women in four selected villages in irrigated agriculture, and to indicate ways and means to strengthen them in irrigation development;

- To give insight in the characteristics of the position of women in the involved government line departments, and to reveal how they have to be strengthened first in order to support the women in the rice fields;

- To give insight in the dynamics of gender relations in Laos, and to raise awareness of the negative impact the New Economic Policy and the related social change have, or might have, on the relatively powerful position of Lao women.

- To show the subsequent steps in the methodology of our participatory gender studies, aiming to operationalize the question, 'how to strengthen the role of women in irrigation development?'

### 1.3. METHODOLOGY

#### 1.3.1 Mixed methods

During the past years the use of Rapid Rural Appraisal (RRA) techniques have been promoted as a methodology in project development, and in gender assessment studies. However, this approach can only be applied when the investigators are familiar with the context of the community involved. Mostly they are not, as class, gender, language, age, and rural-urban differences hamper a real understanding and analysis of the daily life and problems of the village women. We realised that the information that can be gathered by the RRA methodology is by definition restricted, and does not yield sufficient data on the basis of which a 'serious participatory gender and irrigation develop-

ment planning' can be implemented. 'Rapid' cannot be 'participatory', therefore we devised a mixed methodology of flexible and suitable participatory learning components, and more conventional anthropological data gathering.

In line with this participatory approach we asked the villagers to draw maps of their village, and the location of their fields and irrigation facility (dam, weir, pump house etc) (Mascarenhas 1993). We also encouraged them to make activity profiles of the division of labour between women (girls) and men (boys) in the village, with emphasis on various irrigation activities. A very enlightening aspect was that women's and men's groups have drawn so-called 'dream maps', of how they hope and expect that their village will look in the future. It was most interesting that there were remarkable differences between the dreams of the women and those of the men, which will be shown in the village Nong Jama.

Our interpretation of the essence of a participatory gender methodology did not stop with drawing maps. We realised that in the perception of the village women we came with empty hands, as policy recommendations for improvement and possible linkages with responsible government departments are remote abstractions. No doubt our intensive contact, interest and concern for the village women will raise certain expectations for concrete support<sup>9</sup>. We felt it as a moral problem that we had to talk in-depth with women on their gender problems and that we took their time and energy, and that we had nothing tangible to offer for support as an 'institutional' project, as SRIDP has little provision for that. To find some small solution for this dilemma we did our best to do something in practice, such as the financing of a women's weaving group, and a (of course men's) water users group.

More in line with the traditional anthropological methodology, we conducted in addition 71 semi-structured individual interviews among married female farmers between 25 to 65 years of age in three provinces and four pre-selected villages. Nine individual inter-

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<sup>9</sup> These moral and ethical aspects of gender studies have been discussed in the publication of Schenk-Sandbergen, 1995.

views with the woman of the house were carried out among a group of women belonging to the so-called Highland Lao population, 21 among Midland Lao and 40 women among the lowland Lao ethnic groups.

Furthermore, we had long talks at verandas of houses, while sitting near the weaving looms, or while walking through paddy fields and rivers on our way to weirs and irrigation canals with village leaders, members of water users committees and small groups of women.

Sometimes it happened that during discussions with women, the men started to give replies on questions we asked the women, who then, in the middle of a sentence, stopped talking<sup>10</sup>. The team developed several ways to avoid this kind of male dominance in the interview situation by asking the women to show us the kitchen in the house or to interview women when their husband was not around.

As mentioned, an important aim of the studies was a **'learning by doing'** process. Therefore each field study was undertaken by a women's study team which usually consisted, besides us and our female translator, of: one woman representative from the personnel of the Department of Irrigation of Vientiane, who was also the representative of the Lao Women's Union Unit within the Irrigation Department; one woman, and if possible one man, from the staff working in the provincial or, if possible, district offices of Agriculture and Forestry; and the women staff members of the provincial and district Lao Women's Union Offices<sup>11</sup>. It must have been a strange view for the villagers to watch how at least six unknown women (and sometimes a man) were rolling out of a Russian jeep to visit their usually unvisited village. The following fragment of field notes gives an illustration of the atmosphere during fieldwork.

'Cold winds were already blowing on the plain of Phonsavane in the province of Xieng Khuang in late October when the WID study team arrived with the small airplane. The rising sun and a bowl of hot noodle soup were most welcome to stop our morning shivering. The next day we bumped in an old Russian Jeep through the 'plain of jars' landscape of barren hills and bomb craters on our way to our remote study village. It was the third time that we would visit our small group of Hmong women to talk about their history and problems in life. Never before had an outsider entered their small hamlet in the small valley wedged between the impressive mountains, let alone to show interest in the women. The landscape quickly changed in beautiful lakes which have a dramatic revolutionary past, and which are absolutely breathtaking in the red light of sunset. Gorgeous green pine forests, which were dotted with peach blossom when we visited our study village in spring, are now all around. Nature in Laos is simply beautiful, and so are its people. We arrived, and what a joy to see very old grandmother again with the typical Hmong blue scarf around her head, and the third wife of Singh as always with the typical Hmong basket on her back, and Taag carrying her two babies. Children had snotty noses and a bad cough: it must be terribly cold now to sleep in the low mud houses with a loam floor. We gave them the photos we made in spring. They are excited: it is the first time in their life they see a photo of themselves. They become upset by seeing a boy

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<sup>10</sup> This interference of men in interview situations was by far not so frequent and overruling as known from South-Asia practice. The usual pattern was that the men withdrew or listened silently to our discussions from a distance.

<sup>11</sup> This approach at the village/scheme level was based on the common knowledge in women's cross-cultural studies that data collecting for women requires that women investigators should gather data from women: they have more access to and a better communication with other women.

on the photo who drowned in the lake one month ago. They say that his mother will cry very much when she sees this photo. After the first emotions of arrival were over, we sat down and started to ask questions, too many questions...'



*Hmong mother with her children*

The four villages and the Provincial Irrigation Service, and Lao Women's Union offices were visited three times in 1994 over a time span of eleven months: the first time during the process of selection of villages; the second time to involve the village women in the collecting of data and to take interviews; finally to check, and to collect missing data and to conduct in-depth interviews on special subjects. At the end of the third visit we organized workshops at the Provincial Agriculture and Forestry Service office to bring the women of the rice fields, the representatives of the village and the responsible officers and provincial authorities together. With big wall posters we briefed

them on the village problems we had identified, and gave our views and recommendations for improvement. The workshops were very informative for staff members at the district level as the communication gap is often very wide. Moreover, the workshops have highly contributed to drawing the attention of the responsible authorities to the problems of the concerned villages and have initiated concrete steps to incorporate the villages in ongoing programmes and activities.

Not the least aspect of the studies at large was that they have offered a unique opportunity for women staff working in irrigation offices to visit the field, and to investigate the role of women in irrigation development. One of them stated, after joining us, that 'a new world' had opened up for her, and that she had become very interested and motivated to continue on this line and to work for rural women, irrigation and development.

We found that although these few women are qualified as irrigation engineers, they are sitting in the office serving ovaltinc/tea and typing. The reason for this 'downscaling' of their capacities is partly a question of a class and gender bias in male perceptions on the role of women in irrigation work, but it is also partly due to scarcity of funds and means of transport. The engineering tradition of perceiving irrigation as dirty and heavy work not suitable for women staff members is prevalent. On the other hand nobody from the male staff will deny that village women play a substantial role in digging and maintenance of irrigation canals. Double standards are used in perceptions on 'suitable' work for women in irrigation. For the educated women staff members at the Provincial Irrigation Service Office, administration and typing are perceived as the most appropriate supporting type of work in irrigation. These gender assumptions still exist, although the revolutionary past of the country, and in particular the male/female relation in the Pathet Lao movement, has made it clear that women were able to do all the heavy and dangerous work the same as men did. Even the dominant matrilineal Lao Lum culture with its strong economic position of women and much scope and power to play a prominent role in the public sphere, has

no notable influence on the class and gender bias in the perception of male staff. In talks with male staff nobody said that women should be entitled to doing work for which they have the capacity and qualifications, and to have decision making power on an equal footing with men.

The interviews were recorded in Lao language. For the processing, tabulation and compilation of data, the material was partly translated into English.

### 1.3.2 Selection of villages

The main criterion for the selection of villages was the proper representation of the three major ethnic groups in Lao society and the more or less corresponding variety in types of irrigation schemes. The status of women in Laos varies in main lines with the ethnic group the women belong to. Studies mention different numbers of ethnic groups, mainly based on ethno-linguistic criteria. An UNICEF publication (1992,9) mentions that in some studies 38 groups are distinguished, but a recently published very valuable study on ethnic minorities classifies even 130 ethnic and sub-ethnic groups. Chazec writes in his 'Atlas des Ethnies et des sous-ethnies du Laos' (1995, p.5),

La mosaïque ethnique et la diversité ethno-culturelle représentent une des principales richesses de la République Démocratique Populaire Lao. Avec des origines et des histoires différentes, les 4.3 millions d'habitants se distinguent aujourd'hui en 4 familles linguistiques, en 130 ethnies et sous-ethnies et en de nombreux clans, sous-clans et lignées, qu'ils soient généalogiques ou totemiques.

In general an official classification into three major groups is made: Lao Lum, Lao Thung and Lao Sung.

**Table 1.1 Population by ethnic composition, 1985 (per cent)**

Ethno-linguistic group	Official designation	Approximate proportion in the country
Tai	Lao Lum	68
Mon-Khmer	Lao Thung	22
Tibeto-Burman (Miao-Yao)	Lao Sung	10

Source: Lao PDR, Population Census, 1985 (Unicef 1992, p.9)

The overview indicates that the majority of women, 68 per cent, belong to the Lao Lum group<sup>12</sup>, while women of the other two groups can be considered minority groups. The classification used by the Lao government combines nationality (Lao) with an additional component, referring to the supposed usual elevation at which the people concerned reside (Lum means down/low land, Thung means above/mid land and Sung means on the top/high land). Only six per cent of the country has a flat lowland topography, the remainder consists of plateaus and mountains. The three ecological zones correspond with different types of irrigation schemes, each with its own adjusted technology and social environment, which raises its own practical gender demands and interests.

In principle this designation provides a useful basis for our purpose to conduct studies, in order to identify how women can be strengthened, as it is assumed that significant differences exist between the resource basis, division of labour, status, and decision making roles in the household in the three ethnic groups in the three ecological zones.

<sup>12</sup>In general the following sub-groups are distinguished in the Lao Lum population: Lao, Phouane, Youn, Thai Daeng, Thai Dam, and Lu. There are no inter-marriage restrictions between the groups.



Our field visits, however, revealed that sometimes groups do not reside on low lands, valley floors, or mountains, as the terminology would suggest. War conditions, government policies of resettlement of certain ethnic groups to reduce shifting cultivation (slash-and-burn), refugees, pensioned government employees, inter and intra province migration, etc. have resulted in population dynamics in which the relationship between the type of irrigation scheme (ecological zones) and the expected ethnic composition of the population is no longer synchronous. Our field visits revealed that in particular the Hmong (Lao Sung) population have often shifted from the mountains to the valleys, i.e. from highlands to lowlands. We came along villages of Lao Kham refugees (former upland inhabitants) now living in the river lowlands.

However, in main lines it was found that Lao Lum women are mainly residing in the alluvial lowland along the Mekong and its tributaries, and are involved in river lift/reservoir/weir irrigation, which mainly aims to irrigate the rice fields in the wet season and for a small percentage in the dry season to obtain a second paddy harvest, while Lao Thung and Lao Sung women are mainly involved in traditional small-scale gravity/weir/reservoir schemes, aiming to give supplementary irrigation to rice fields in the wet season.

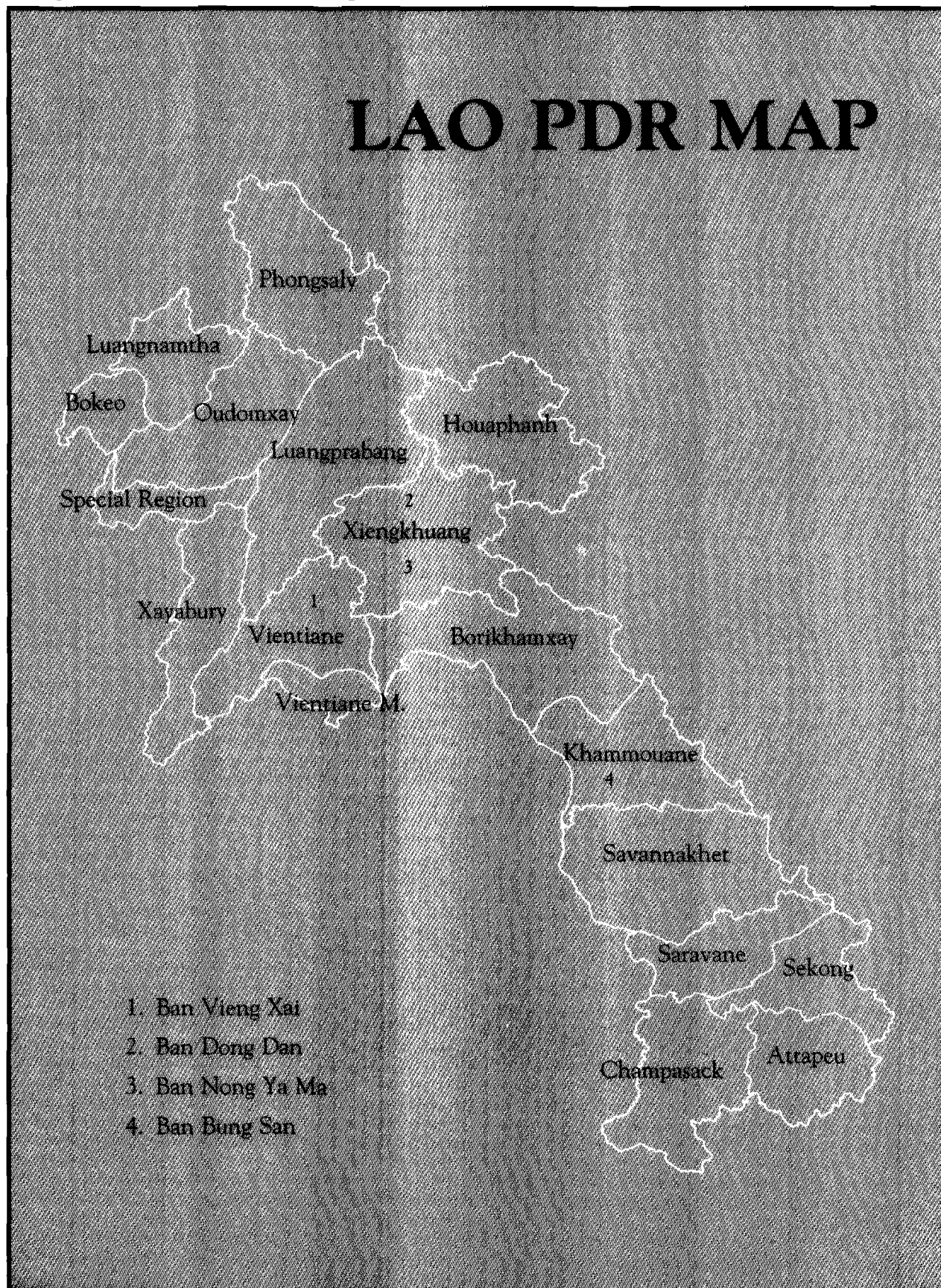
In summary the following overview of the relation between ethnic group, type of irrigation and the character of irrigation water use can be given:

**Table 1.2 Overview ethnic group, type of irrigation and production system.**

Ethnic group	Type of irrigation	Production system
Lao Lum women	River lift/ gravity/weir/ reservoir in the lowland plains	Also dry season for subsistence and cash
Lao Sung women	Gravity/weir/ reservoir in the upland	Mainly wet season for subsistence and some cash
Lao Thung women	Gravity/weir/ reservoir in the lowland of mountain areas	Mainly wet season for subsistence and some cash

On the basis of the above reality we have selected four villages; we realise that these four cases are, no doubt, unique in themselves, but we believe they stand for a wider validity of the conditions and status of women in the country at large (see map. 1)

Map 1. Location of selected villages



The following brief sketches of the four villages give an impression of the diversity.

### **Vieng Xai:**

The first case-study is a patrilocal Lao Lum village of Thai Deng sub-group in Vientiane province. Women and grown-up girls play a major role in the earning of cash in the household with weaving. Gender relations and the division of labour are flexible. The traditional gravity irrigation system is intended to supply additional irrigation in the rainy season. If not, there is a rice shortage for an average of six months, and compensation with Hai rice and foraging are the only ways of survival. Three times the villagers have invested much money and voluntary labour in improving their irrigation system. It failed two times. The village is now included in the formal planning of the Nam Kuang II (700 ha) irrigation scheme. Recently a new style formal Water Users Organisation has been founded consisting of only male members. Lao Women's Union is active in the village.

Identified problems are that the irrigation scheme is not secure and there is a shortage of rice while the cultivable land is limited. Animal diseases, in particular in chicken raising, are a problem. Women lack capital for investment in silk weaving. There is some need for a family planning programme.

### **Dong Dan:**

The second case gives an insight into the typical problems of a small group of Lao Sung, Hmong women in Xieng Khouang. Their historical background in terms of war and resettlement, their patriarchal clan culture (some polygyny) and the changes in their livelihood system have a strong effect on the present conditions. They lack land and irrigation. The *Na* (lowland paddy) fields they occupied in 1976 and cultivated, have been reclaimed by the former land owners. With a juridical consent to acknowledge the land rights of the former land owners and financial compensation, the Hmong have to leave their *Na* fields and to buy less fertile land far away from their settlements. The women cultivate different Hai plots, for animal fodder, rice, cassava and maize. They try to irrigate some land for vegetable growing and fish ponds.

Ground water irrigation to be used in the dry season will help them as a component of a wider rural development approach. It has to be feared that their socio-economic condition can only decline as the Government policy is to stop the production of opium, slash-and-burn cultivation in Hai fields and wood cutting, which are all traditional important sources of income for Hmong people.

Women mentioned as their problems a lack of land for food and subsistence production; low income, as there are very limited income generation opportunities; lack of irrigation; low education, lack of skill in marketing; animal diseases, in particular related to chicken raising.

### **Nong Jama:**

The third village selected for our gender study is a Lao Thung, Khamu village also in Xieng Khouang. It gives a portrait of a village which was totally destroyed by the war in 1969, and still shows the consequences of that tragic event. Risk of bomb explosion is still a constraint when opening new land for cultivation. Their traditional weir has to divert the water for additional irrigation in the wet season. Two times women contributed much money and voluntary labour to make the dam more solid. Two times it failed. In October a typhoon destroyed 70% of the rice crop. Cash earning is very difficult, in particular for the men.

The problems as perceived by the women (and some men) are the shortage of rice due to the limitation of paddy fields and the risk of bomb explosion, and the failure of the irrigation system in which their traditional dam broke down twice. No compensation of rice in Hai fields is allowed and they have no access to funds for raising more livestock. According to them a major problem is their low income due to restricted income generation opportunities.

### **Bung San:**

The fourth village represents by and large the position of the majority of matrilineal Lao Lum women. The majority of village women are the owners of the farmhouse and land. An electric irrigation pump scheme is installed along the Mekong, designed to provide

irrigation water in the dry season. The reasons why villagers are often not motivated to use the scheme in the dry season, as well as the reason why other households want to use the irrigation water, will be revealed in the section on Bung San. Much household cash comes from selling and processing of tobacco, vegetables (spring onions) and weaving. In the matrilineal context women have more decision making power in matters such as agricultural production and other 'above household level' decisions.

Women stated that the irrigation canal should be improved with machines to avoid flooding. Poor women have no money to buy boats to go to the island to grow vegetables. They like to improve extension for vegetable growing.

The following overview of the four villages can be given:

**Table 1.3 Location and ethnic group composition of the four selected case-study villages.**

Name of Village	Province	District	Ethnic group
Ban Vieng Xay	Vientiane	Vang Vieng	Lao Lum (patrilineal Thai Deng, Thai Dam)
Ban Dong Dan	Xieng Khouang	Paek	Lao Sung (Hmong)
Ban Nong Ja Ma	Xieng Khouang	Khoun	Lao Thung (Khamu)
Ban Bung Xan	Khammouane	Nong Bok	Lao Lum (matrilineal Thai Vang)

For the two small villages Ban Nong Ya Ma and Ban Dong Dan the whole number of households of one neighbourhood have been involved in the studies. For the big villages Ban Vieng Xai and Ban Bung Xan

the interviews have been conducted among women of different classes based on stratification of the availability of rice per year (shortage, enough, excess) and on observations about the quality of houses.

## 1.4 CONTENT OF THE STUDIES

The scope of our specific gender study is wide since it deals with women from diverse ethnic groups in various types of irrigation schemes: the upland traditional self-reliant ones, and the mainly government supported ones along the Mekong and its tributaries. The studies were very challenging and the perspectives, from place to place, changed as a many-faceted diamond.

In the beginning of the studies we adhered strictly to the perspective of 'how to strengthen the role of women in irrigation development'. This had initially a narrowing-down effect by focusing too much on issues within the mandate of the irrigation department, and closely related subjects such as agricultural extension, forestry and livestock. However, we soon became aware that the best support to irrigation development might be to assist women in better income generating employment, such as weaving and embroidery, to enable them to pay water fees, or to re-pay loans invested in irrigation schemes. Therefore we have not limited our focus strictly to agriculture and irrigation but we have developed a rather flexible holistic set of questions covering the subject of 'women, irrigated agriculture and development' in a broad sense.

To obtain a clearer understanding of 'how to strengthen women in the rice fields' we studied the characteristics and the key variables shaping, influencing and transforming gender roles and relationships in irrigated agricultural systems. We covered the following themes in our questionnaire, talks and interviews:

- The village profile and the history of the irrigation scheme (traditional or government supported) as the context: use and access of irrigation water, crops grown, the role of women in implementation, operation and maintenance of irrigation facilities and gender composition of water users groups.

– An holistic approach was followed to assess the position of women. Some readers may possibly wonder when reading our case-studies what subjects as ‘residence pattern’, ‘the role of husbands during deliveries’ and data on ‘bride-prices’ and ‘number of born children’ have to do with ‘strengthening in irrigation’ To our view, all these subjects are, in one or another way, related to our main focus of involvement of women in irrigation development. Let us give a few examples: Residence patterns, and the role of husbands during deliveries are important indicators to assess the status of women and the prevailing gender relations. Bride-prices are yardsticks to assess women’s status, but are social obligations too, involving money that cannot be spent on irrigation development. The number of born children reveals the important motherhood role of women with its impact on time and energy left for agricultural production and irrigation. It is our intention to show in our village case studies, that the scope and limits of women’s participation in irrigation projects are determined by an inter-play of numerous aspects. The variety and character of these aspects are different in each situation as the context in which they are embedded varies from place to place. We want to make clear that no gender blue-prints or replicability models can be delivered, as each location requires a different series of gender interventions to make irrigation development successful and sustainable (Schenk–Sandbergen 1994 c).

– Women’s economic roles are studied in detail for two reasons: To know the domestic and agricultural workload of women, and to find out what economic activities can be supported to improve the income capacity of the household. Therefore, the focus of data collection is on the gender division of labour, ownership of land, responsibility for rice and vegetable production, livestock rearing, cash earning activities, and wage labour.

– The subject on ‘women, income and expenditures’ aims to assess the share of men and women in the total cash income in the household. This is crucial for two reasons: to know the extent of financial autonomy of women, and to have insight from which side investments in irrigation schemes, repaying of debts,

water fees can be expected.

– The role of women in management and decision making of Water Users Groups was studied to indicate male authority in new formalized public institutions, and to identify ways and means to enhance the women’s voice.

– Women expressed their perceptions and dreams (see ‘dream maps’) on the future developments in their village. In this way their gender interests, solutions and ambitions became visible.

## 1.5 COMPOSITION OF THE BOOK

To put the four case-studies in context, we will briefly sketch the socio-political dimensions on which the relatively high status of the majority of Lao women is based. However, during our field visits, we noticed some alarming indications of a deterioration of this favourable position. Therefore, the worrisome consequences for women of the economic liberalization policy get attention in Chapter 2. We are very concerned that the unique matrilinear tradition which supports the relatively high status of women in Laos is very much in danger. The position of women staff members in a changing Department of Irrigation and the new ‘women and development’ approach of the Lao Women’s Union will be briefly indicated in Chapter 3. In Chapters 4, 5, 6 and 7 the four gender specific irrigation village studies will be described, and the main problems of socio-economic development will be identified. In Chapter 8 the spotlight is on our suggestions how possibly the women staff in the irrigation offices can be supported. Followed by our findings of ‘how we can support women in the rice fields’. New horizons have to be opened to develop their capacities and talents to shoulder the stimulating and innovative roles they can play in irrigation development.

## 2. LAO WOMEN: GENDER CONSEQUENCES OF ECONOMIC TRANSFORMATION

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Irrigation development and the involvement of women, cannot be seen in isolation, but should be placed in the wider context of post-revolutionary change caused by modernisation and economic liberalisation policies. Irrigated agriculture is connected with the social transformation process in many ways.

In this Chapter a brief introduction will be given of basic gender data, and the fascinating differences in social organisation and status of women between ethnic groups. Our main attention will focus on the unique matrilineal and matrilineal social organisation and related gender ideology of the Lao Lum groups, which support the powerful and autonomous position of its women.

**However, the crucial question that can be raised is, 'how long can the wonderful matrifocal and matrilineal Laotian culture be protected against undermining forces generated by the current new economic transformation process ?'**

Carol Ireson (1992, p. 3) writes that Lao women have managed to maintain their sources of power while going through numerous historical events. Through war, socialist revolution, and recent economic liberalisation women were able to continue their access to economic resources on which their high status is based. However, during our visits in the provinces we found alarming indications that the favourable gender position is seriously in danger by threatening changes such as: mechanisation and modernisation of agriculture, land legislation and land title developments to increase the state revenues by collecting more land tax, logging of forests, import of factory-made cloth competing with women's home-produced goods. On the other hand it cannot be denied that the economic transformation has generated more opportunities for women to earn an income in the 'free markets' and to develop skills and talents. During our studies it was clear that selling and buying vegetables and handicrafts are very lucrative trades in which many women participate.

In Lao culture authority and social hierarchy are more based on rank and age, rather than on sex; in the Lao world view men and women are seen as each other's complement, a view which supports women's relatively autonomous position. Nonetheless, female autonomy is not only a question of having a crucial role in agrarian production, or in the wider economy and the market, but it is also a question of having decision making power, and access and control over resources. We are very worried that in particular the last two aspects mentioned are quickly eroding and undermined as a result of the new economic policies and its related patriarchal value system.

Additionally, the increase of Buddhist influence and ideology, which legitimates 'au fond' the superiority of men, might be a religious factor in the long run which will endanger the unique and very precious matrifocal Laotian culture.

### 2.1 DEMOGRAPHIC GENDER DATA

The 1995 population in Laos is 4,590,000: 2,256,000 males (49%) and 2,334,000 females (51%). The birth rate in 1995 was high and estimated at 41/1000 and the death rate at 15/1000. Based on the 1995 national census the annual growth rate is 2.6 per cent per year. Children under 15 represent 45 per cent of the population, which is a very high figure (UNICEF 1992, 5). Surveys reveal that an average married women gives birth to 8.8 children (UNICEF 1992, 98). Women in the four villages we studied gave birth to on average 7, 7.7, 6.2, and 8.3 children respectively, which is a somewhat lower figure, but shows the intensive motherhood role Lao women have to shoulder. This is an important fact in relation to irrigation development, as motherhood limits the time and energy of women for other activities and aspects of life.

The birth rate figures in the very interesting study of Claire Escoffier-Fauveau (1994, p 58) are much lower and show that birth rates and child mortality are related to ethnic groups. In our study we found that Hmong women have the highest birth rates, followed

by the matrilineal Thai Vang community, the Thai Deng and the Khamus, in that order.

We observed that Lao women have developed admirable skills in combining their household and productive work with child care and looking after the smallest baby and toddler at the same time. It is not unusual to see a mother having one baby on her back in the *Pha Chia* (cloth in which babies are carried), the toddler on her arm, while in the meantime she is pounding the rice with the *Khok tam khao* (traditional wooden rice pounder) by moving the handle with her feet.



*Combining motherhood with grinding rice*

Even mothers with many children make a calm and joyful impression, and they treat small children with ease and self-confidence. Fathers and men share in looking after children and carry babies and small children in all sorts of *Pha Chias*, often of cloth characteristic for the weaving patterns of their ethnic group.



*Lao Thung grandfather with grandson*

The relatively positive gender relations which support the relatively high position of Lao Lum and other women, can best be illustrated by the habits and customs around pregnancy and deliveries. These are happy events and not burdened as in other cultures with feelings of shame, inferiority and uncleanness. On the contrary, we found during our studies that mothers who have just delivered are treated with care and tenderness and during the first month they get extra good food to regain strength. It is the responsibility of the father to provide the best food and to make life comfortable for mother and child. It looks as if Lao culture, aware of the crucial economic role of its women, has developed favourable and affectionate customs and behaviour to ease the biological role of women as much as possible. We had the impression that there is much awareness of the necessity of good reproductive health of mothers which seemed to be based on the cultural view of positive naturalist perceptions of the body. All women we interviewed had breast-fed their children for a long time. The duration of breast feeding varied also accord-



ing to the ethnic diversity. Claire Escavier (1994, p 51) mentions that most of the Lao Lum women she interviewed thought that the power to control their family size was in their hands and that contraception was very much a woman's affair. She states,

....the husbands interviewed said they agreed with their wife's decision, and seemed content to let their wife be the controller of their own fertility.... and their own sexuality.

This reveals that Lao Lum women enjoy a certain autonomy which allows them to make personal decisions concerning their own fertility and sexuality. This may be so for the private, personal sphere but that does not mean that women can exert the same control and decision making power in other domains of life although they are very much involved in that.

Life is still harsh in many remote places in the mountains, and mothers and fathers suffer as child mortality is high<sup>13</sup>. The child mortality in our four village studies varied from 35% (Khamus), 31% (Lao Lum), 27% (Lao Sung) to 18% (Thai Deng). It is our impression that there is a relationship between high fertility and high child mortality.

We found that Hmong women are familiar with birth spacing practices and herbal medicines to limit their families. Lao Lum women feel free to use contraceptive methods and have no guilty feelings or fear of committing a sin by using contraceptives, but women of Lao Sung community do as we will reveal in our Dong Dan village study.

The role of the government concerning family planning has been quickly changing during the past three years. The UNICEF report on children and women in Lao PDR states (p. 98):

The Lao PDR government has been pro-natalist and has not given enough attention to the importance of birth spacing and pregnancy counselling. For instance, sterilisations can legally performed only for health reasons and after authorisation has to be obtained through local authorities from the council of ministers. The government now recognizes the importance of birth spacing and has included some family-planning methods in MCH activities.

During our field visits to Khammouan and Bolikhamsai in January/February 1994 and in November/December 1994 we found that at the provincial Lao Women's Union level a training for trainers had just been completed to carry out a huge survey regarding family planning. In each district 30 villages will be surveyed. The propagation of 'spacing of child-births' will be the central focus in the campaign. The project is implemented by the Ministry of Health and supported by the UNFPA. The Lao Women's Union representatives with whom we spoke, stated that they are very grateful for this change in policy and hopeful that it will improve the health and living standard of the mothers. We came across mothers who lost seven of the 14 children born. We wondered what their reaction will be as they are told to practice 'spacing of child-births'.

According to the 1995 population census, women represent 51 per cent of the total population. No doubt the smaller male population may have been caused by periods of intense war. The distribution of the population by age groups, sex and marital status confirms that particularly in the age group 40 to 70 years the proportions of women divorced and widowed are much higher than those of men. It is estimated that 25 per cent of women in this age group are the head of households (Country Report 1995, p.12). Of the 71 households we investigated the total population was 491, of which 265 women and girls, which comes to

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<sup>13</sup> *The main illnesses in children are acute respiratory infections, diarrhoeal diseases, and malaria. Iodine Deficiency Disorder rates in Lao may be amongst the highest in the world (Unicef, September 1993).*



54%. Sex ratios<sup>14</sup> are usually good indicators to assess the gender situation in a country. In countries where women have a low status and discrimination against them is unmistakable, sex ratios show consistently fewer women than men. In Laos the situation is different but as stated the war conditions have distorted demographic patterns: in all age groups there are more women (girls) than men (boys). The sex ratios (according to the Lao definition) in the provinces we visited are as follows: Bolikhamxai 96, Khammuan 91, Xieng Khuang 99, Vientiane province 115, Vientiane prefecture 105. The lowest sex ratio in Laos is found in the province of Saravane, where there are 88 men to 100 women.

## 2.2 THE GREAT MATRILINEAR CULTURE

Social organisation and cultural patterns inherently support the relatively high status of the majority of Lao women, in particular the Lao Lum women. Bi-laterality of Lao Lum families with a tendency towards matrilocality is, according to Carol Ireson, an important supporting pattern, which means that descent can be traced either through the male or through the female line. Other studies are more determined in their statement that confirm our impressions from talks and interviews in villages that the system of groups belonging to Lao Lum is predominantly matrilocal and matrilinear<sup>15</sup>. As we will show in our findings in the village Bung San, matrilinear descent implies inheritance of the house and land through the youngest daughter (ultimogeniture), or other daughters, as the main custom. The youngest daughter's inheritance of the family home and fields is more or less seen as a compensation for her care of the parents. Sons usually marry out, and live with their in-laws, either in the same village or in another village. Therefore, such a family welcomes the birth of female children since

they might be the successors who own, care for, and manage the family property.

A typical domestic cycle of a Lao peasant family entails that the eldest daughter and her husband will live in the family house along with her brothers and sisters. The young couple works on the land of her father and mother and try to acquire their own productive property. When the next eldest daughter marries, she and her husband come to live in the family home, while the eldest daughter and husband will move and build their own house, with all kin assisting, in the compound (next door). This shifting of daughters goes on till the youngest settles permanently with her husband in her parents' home. To understand the gender relations in a matrilocal household the following perception was often mentioned,

There is a Lao custom that parents worry about their daughters so they want them at home. But the family needs a leader so the son-in-law has to look after his parents-in-law.

This indicates the ambivalent position of the son-in-law. Economically he has no power resources of his own, but in some way, as a man, he is considered the head of household. The problematic relation between mother-in-law and daughter-in-law which is a well-known phenomenon in patrilocal residence cultures, does not exist in Laos. It was mentioned to us that there is often tension between the father-in-law and son-in-law as they both try to balance their extent of dependency and authority.

The matrilinear pattern implies that women are assured of powerful economic resources, which enable them to have a very central role in the rice-based farming system.

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<sup>14</sup> Usually the number of women per 1000 men but the Lao Unicef definition uses the more women friendly yardstick of the number of males per 100 women (UNICEF 92)

<sup>15</sup> When we asked about the residence pattern after marriage, we received the standard answer that 'it depends on the situation'. However, in a meeting of 6 young women in a LWU group only one had come to her husband's house. The other 5 husbands had come to their bride's house, which implies that they cultivate the land belonging to their wife's parents.

Unfortunately, this does not apply to the women of the Lao Sung and Lao Thung groups. Their social organisation and culture is based on male dominance in the ownership of means of production, patrilocal residence patterns and patrilineal descent and inheritance patterns. Polygyny is practised among some of the Hmong (in the villages we visited only 10 to 15 per cent of Hmong men had more than one wife). Women of those groups have less access to economic resources but have to do almost all productive and household labour. Nevertheless, we found that despite the dominance of patriarchal relations, the social atmosphere of these patrilineal ethnic groups was coloured by what we want to name as 'women's sense of solidarity'. The social structure may offer men the position of authority, but women's sense of solidarity and socio-economic power often counteracts socially sanctioned male domination. This power base springs from a collective spirit among women and from the options available for them for economic autonomy, both based on women's identity. **It is our finding that being a woman in Laos, also in a patriarchal context, implies a potential for economic autonomy and self-reliance as crucial economic sectors and activities are monopolised by women due to the acceptance of the gender division of labour.** Laos offers still a refreshing example of the opposite of what is usually emphasized in women's studies theory, namely, that men are dominant in the cash economy and the market, and women are marginalized to food-production and subsistence. In detail this will be described in our 'patriarchal' case-studies of Ban Dong Dan and Ban Nong Ja Ma. An additional crucial point for the intrusion of matrifocal influences in the social organisation and cultural patterns of patrilocal groups is, that inter-marriage between ethnic groups is not a taboo. For example, our visit to Muang Kham village revealed that four Lao Lum women married Khamu men; the other way round there are also five to six cases, and the Khamu men followed the matrilocal custom of their brides, and went to their parents-in-law houses.

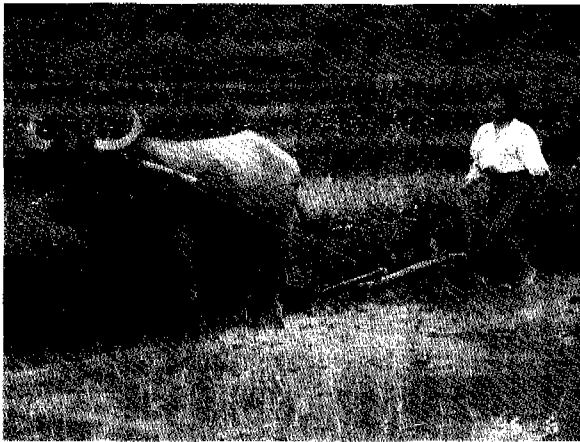
## 2.3 STRONG FARM WOMEN

Agriculture is by far the most important sector in which Lao women participate, followed by commerce, education, health, industry and government administration. There are very few women in professional, technical and managerial occupations. According to the 1985 census 69.5 per cent of the female labour force (age group 16–60 years) works in agriculture; that is 14 per cent higher than males, of whom 55.6 per cent of the labour force (age group 16–60 years) participates in agriculture. Lao women work in several important sectors of the village economy: they work on the land as farm women, they gather forest products, many are artisans in weaving, they are the buyers and sellers on the market, and last but not least, they run the household.

Glutinous rice is the staple food in Laos and the main agricultural crop among the Lao Lum and the Lao Thung. The use of land, water and labour is almost totally directed to rice production. Rice production is the significant component in the livelihood pattern of almost 90 per cent of the population.

Through the centuries women have been responsible for the rice production in the lowland paddy fields together with their husbands and children. When we look at the division of labour in rice production we can roughly depict the following: men plough, make bunds, and prepare seed beds, and women do more than half of the transplanting of rice, weeding, harvesting, threshing and post-harvest operations. The work in post-harvest operations has been strongly reduced by the introduction of the rice mill in the more developed areas. However, in more remote areas we saw women carrying babies in the Pha Chia while doing the fatiguing rice pounding with the Khok tam khao.

The long absence of husbands during the war period had no doubt an impact on this general division of labour in agriculture. In Xieng Khuang, a province which has heavily suffered from the war, women even do the ploughing.



*Woman ploughing in Xieng Khuang*

It seems that it also has enhanced the cooperation between women to help each other on a mutual basis. We came across many mutual labour groups in villages, now consisting of males and females of around ten neighbouring households which exchange labour in planting and harvesting of rice. The same pattern we found in Khamu women's groups exchanging labour in making parts for thatched roofs. According to our view this collective spirit has to do with the earlier noted sense of women's sense of solidarity which culturally is embedded in a matrilinear social organisation.

For upland Hai rice farming, women take part in the burning and clearing of trees and bushes. After planting, women are responsible for weeding, making fences, and harvesting (Hakangard 1990). Women and men collect most of the small forest products, but women **sell them in the market**. When we asked 'why'? the reply was 'that men are shy, and that women love their husbands more than the other way round and that therefore women go to the market'. No doubt, social contacts, sitting together and sharing talks and food, at the market place play also an important role for women.

Vegetable growing with spray-bucket irrigation (sometimes small pumps), but also the growing of cash crops like tobacco, spring onions and corn is quickly increasing in the alluvial plains. Every centimetre of land along and in rivers is utilised. A lot of time and energy of women is spent on cultivation and marketing. Small children often sit on top of the heavy baskets the mothers carry and this adds substantial to the workload.

Women and men have much knowledge on vegetable growing, which varies from the charming small plots with onions and some herbs in front of the house, to big plots of vegetable land on the islands in the Mekong river. Husband and wife work together in the vegetable garden but the women do the selling of crops (two to three days a week). We found that abundant rice yields in the wet season and the availability of land and water for vegetable growing often go together in the alluvial plains. However, in the uplands this combination is not possible, although many small streams in the uplands are creatively used by women to make lovely small vegetable plots. We observed all types of fenced mini-gardens in the uplands of Xieng Khuang in Hmong and Lao Kamu villages. The gathering and selling of forest products is more or less the substitute of vegetable selling. Women in the uplands have to spend far more time and energy, making their lives much more exhausting and burdensome.

Women in Luang Prabang, especially the Lao Thung and the Lao Sung, expressed that rice hulling and water carrying are the hardest and most time-consuming tasks. A project to provide labour-saving devices such as rice mills and water supply systems found that the time regained by the labour-saving devices could be spent for productive and income-generating activities. Such villages saw a slight improvement in the quality of life, such as increased number of school enrolment and reported decrease in malaria and gastro-intestinal diseases. It is noted that the rural population often do not become motivated by a concept to save time but more likely by one to earn income. Other time-consuming tasks pointed out by women include cooking, highland field cultivation, and gardening.

## **2.4 GENDER CONSEQUENCES OF ECONOMIC TRANSFORMATION**

Let us now come back to the question we raised at the beginning of this chapter, **'how long can the wonderful matrifocal and matrilinear Lao culture be protected against undermining forces generated by the current new economic transformation process?'**

## 2.4.1 Mechanisation

Field visits in villages along the Mekong, and particularly in the province of Bolikamxay, revealed that one of the most important transformations with respect to rural mechanisation is the change from buffalo to (the walk-behind) power tiller or small tractor. This technological innovation has a tendency to increase the male dominance in agrarian production as it changes the division of labour, and the general opinion is, that only men can work with the power tiller. This kind of gender ideological notions and values are new. The machine is mainly used for ploughing, which is, and was, of course an almost male-dominated type of work, but the power-tiller is simultaneously also used for activities which were previously carried out partly by women. It is said that because of the machine, women have less work as they have less to carry. The attraction of the power tiller is that the whole family can be taken around, and that large quantities of wood and water can be transported as well as the crops from the field to the house. Children are brought to school with the power tiller by their fathers. Farmers told us, 'they have no worries in the dry season on feeding and bathing of buffaloes.' And, according to our informants, it is a status question: 'when people see that their neighbours have a power tiller they also want to buy one'.

However, the use of tractors automatically introduces a field of male decision making in modern inputs that did not exist before, and reduces in an invisible way the traditional female skills, knowledge and approach in rice production. More serious is that the process of the nurturing of the soil by organic droppings of the cattle is slowly slipping out of the hands of the women and replaced by male control. Farm women told us that in the past they had plenty of manure for one hectare of rice land with two buffaloes and a cow. With power tillers the use of chemical fertiliser and other inputs becomes unavoidable and that new domain for the Lao farm household is dominated by male decision making.

Staff members of the provincial agricultural and forestry office in Bolikhamsai province summarised the 'pros and cons' of the transfer from buffalo to power tillers as follows:

- 1) There is no grass to eat for buffaloes because all fields are rice fields.
- 2) There is nobody to find, protect and look after the animal. The power tiller can be parked and locked.
- 3) A buffalo cannot carry wood and products
- 4) Women can relax and watch TV: no need for buffalo watching
- 5) Pollution in the field is more.
- 6) The power tiller does not reproduce
- 7) The power tiller only has to be 'fed' when it is working. The buffalo has to be fed 365 days a year.

The cost of a power tiller is 1,800,000 kip and that money has to be earned in cash. It has to be generated also by the hard labour of the women of the household. The price of a buffalo is 150,000 kip and 12 buffaloes can be bought for one power tiller. Along the Mekong the buffaloes are sold, and women become less in control and have less access to the agrarian cycle, but have more work-load to generate more income to pay for the mechanisation. The gender-specific, but also environmental and animal protection effects of this mechanisation process worried us very much. It should be propagated that women are also capable of operating power tillers, and more important, awareness should be raised on the risks and disadvantages of the use of modern chemical inputs. Attention should be given to the ecological consequences of the change in farm-system, as for example the loss of fertility of the soil in the long run. We did not notice any awareness of this possible ecological impact during our long talks in Bolikamxai villages.

However, luckily, we also found a strong resistance in our matrilinear village along the Mekong in Khammuan Province against changing the ecological cycle in terms of abandoning the cattle and adoption of power tillers and dry season irrigation. To understand the importance of having livestock we have to study the typical Lao farming system in its yearly agrarian cycle. When the rice is growing in the fields in the wet season, the cattle are sent to the forest, or uplands, to graze there. Most farmers mark their cattle to recognize the animal when it can return to the village, but farm women also assured us, 'that the cattle know exactly from the smell when the harvest is over, when and to whom they have to come back.' The cattle have to

return to the paddy fields in fallow time as in the dry season there is no food and water any longer in the uplands. The ecological balance and the fertility of the soil in Laos is based on the centuries long and sustainable system that after the harvest of the monsoon rice the lower parts of the stalks of the rice are just left in the soil of the fields, and the cattle is released in the field to eat the stalks. In this way a very natural manuring process takes place. Sometimes the droppings of the cattle are mixed with the remaining stalk waste, which gives an excellent compost.

One of the most serious consequences of the introduction of irrigation in the dry season is that this traditional seasonal ecological farming system has to be broken and abandoned. Women expressed their concern about their cattle ('where to put them'), and the 'unnatural' condition that compels them to buy fertilizers and other chemicals to destroy crop diseases if they use their paddy land for the second crop in the dry season.

Mechanisation, modernisation and implementation of irrigation schemes, in particular of the large pump irrigation schemes, provokes, as we will reveal in our village case-studies, male dominance in management, decision making and access of the irrigation facilities. Our field visits learn that the related processes of access to credit, insecticides and fertilisers are so far domains controlled by men. But, even worse is that the customary land rights and land legislation are quickly changing, which might seriously endanger the economic autonomy tradition of Lao women.

#### **2.4.2 Customary land rights and land legislation**

We are very concerned about the findings in our studies in the provinces, which show that the largest threat to the women's power resources in agrarian production might be located in the sphere of **land legislation**. Laos is going through a rural transition phase of transforming cooperative and traditional structures to individual land ownership. The State is exploring all possibilities to enhance its income, and land tax forms a substantial contribution. Therefore, we found that in the visited provinces and districts

large-scale land surveys are carried out (often contracted out to private firms from Vietnam) to determine individual land ownership in order to upgrade the pre-war cadastral surveys and allotment of land titles. At present it seems that all the land is registered in the name of the '**head of the household**': usually men.

In village Venthad in Bolikamxai we had a discussion with the village head and other men and they told us that all the land is just surveyed, and the land cadastre is updated. The reason for the land survey according to the farmers is, that the Government wants to know what land tax the individual farmers in the village have to pay. They said that all surveyed land is automatically classified in their name. The inheritance pattern in the village is matrilinear, and the farmers admit that they all cultivate the land property of the parents of their wives. We ask, 'if the men think it is right to classify the land in the head of the households' name?' They reply that this is a temporary arrangement and that a Land Law will be implemented which will put the land in future in the name of husband and wife. In Xieng Khuang the Head of the District Kam told us that, 'the survey for the estimation of landownership is almost completed'. It was carried out by a Vietnamese company. The farmers had to pay 3600 kip per hectare for the measurement. All land is put in the name of the head of the household. Only in case of widows the landtitle is given on her name. In Paek district in province Xieng Khouang we visited the Fai Nam Khun irrigation scheme and discussed the landright and land legislation in a group meeting with villagers. They told that land surveying was also completed in the first phase. All the land is put on the name of the husband. A small investigation among the residence pattern after marriage in the village learned that 80 per cent of the males have come to their bride's house which implies customary land rights through the maternal line. One women said that she has two types of land: 'inherited from her parents and common land which she and her husband bought together'. She thinks it is not fair to give the landtitle only to her husband. Another woman states that nowadays children ask about the land heritage of father and mother as the matter becomes important for their future plans. It is remarkable that the general opinion

of the authorities in the village is similar as in other places. They just emphasize that this classification is a step by step process and that in the next phase the landtitle will be put on both names.

Only in cases of female headed households (widows), or where women insist on their customary rights, the land is registered in the name of the woman in the house. It is in the urban areas, with an increase in the number of divorce cases, that women start to realise that ownership of land and property formally registered in their name is an important safety-net of economic and emotional security in life.

This male-dominant classification of land titles may cause a dramatic change in the power basis of Lao Lum women which may have very drastic negative effects for their role in agrarian production and status. As experience in other Third World countries shows (Erienne & Leacock 1980), with this they may lose one of the most basic and vital customary power resources: the land they have inherited from their parents. Raising awareness of this matter with the Lao Women Union, Government institutions, NGOs etc. can be considered one of the main activities of strengthening women's roles in (irrigated) agricultural production.

In relation with irrigation it can be assumed that the settlement of property rights on land will get priority in areas with irrigated agriculture aiming to grow a second crop. These areas will produce a high yield of rice and as the land tax collection is based on the output of the land in a cumulative way (the more output the more tax) these areas will be the first in which the

State will be interested to complete cadastral operations<sup>16</sup>. Further investigations will be necessary to substantiate our concerns regarding the detrimental effect of the current male oriented implementation of the land legislation.

### 2.4.3 Regulation of Water Users Organisations

During our investigations we found that many communities have a long tradition of voluntary labour to operate and maintain small local schemes. The people have inherited skills in local irrigation techniques and water management. This counts for the men, as much as for the women. However, as we found everywhere, women are not involved and not participating in the recently established Water Users Organisation in the village. According to a resolution of the Ministry of Agriculture, Water Users Organisations have to be formed to regulate the operation and maintenance of government supported schemes. Procedures for Water User Organisations before, during and after scheme construction are drawn up, and the role and duties of the Organisation formulated. Main duties and roles of members of formal Water Users Organisations are to look after regular repair and maintenance, canal excavation, weed cleaning in the scheme area, to give material and financial support, to collect water fees (either in cash or in kind) in accordance with the agreement of the association, and to protect the scheme against any type of destruction. Our visits to irrigation schemes in six provinces showed that there are no women participating in the management and decision making of the 'new' irrigation scheme

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<sup>16</sup> The farmers in the villages told us that the landtax is based on the output of their crop per hectare. The more production the more tax. In village Venthad in Bolikamxai the farmers told that the tax-rates are as follows:

- 1) 5000 kip (annual) more than 4.0 ton production
- 2) 4000 kip 2.2. ton production
- 3) 3000 kip less than 2.2. ton production.

In 1993 they paid in rice, but this year they had to pay in cash. This system might work as a disincentive for the farmers as the harder they work to get a good crop the more tax they have to pay. It is advised to base the tax system on the social criterium of the size of the land as it will discourage land speculation.

organisations with the exception of one scheme.<sup>17</sup>

We felt that the 'modernisation process' in formalising and legalising irrigation organisations has reduced the former more equal gender relations in the management of irrigation schemes to the disadvantage of women. In the new concept of community participation, awareness has to be raised that women are important partners in agriculture and irrigation, operation and maintenance, while that was a basic understanding in the traditional irrigation context. This situation will be indicated in our case-study of Vieng Xai village. With the institutional formalisation of government supported schemes, the danger is very realistic that women lose control and access over 'their' land, leading to a process of 'discpowerment.'

The main reason for the exclusion of women is the intrusion of the urban and class biased gender ideology that men are the heads of the households and women look after the children and the household (see also section 2.5 of this Chapter), and that irrigation is a male domain and not suitable for women. These values seep through the whole hierarchy of levels from the centre (Vientiane) to the village, as the process of mobilisation and organisation of water users organisations has to be implemented through the male officers of the irrigation line departments. At the district level the male heads of the villages are approached to organise meetings to discuss the formation, role and duties of formal water users committees. The head of the village will call the men of the households, as this matter relates to the public sphere of authority not specified by society as being the women's domain. In most cases the head of the village will invite the official representatives of the village Lao Women's Union to be present at the meetings. However, we came across a very large scheme where the representatives of the

Lao Women's Union were not invited at meetings and did not know that the male Water Users Organisation had decided that all households have to take a credit of 200,000 kip to invest in the irrigation scheme. It was very embarrassing and painful for the village women when this was brought up during a talk we had on the financing of the irrigation scheme. The consequence for the women was that, under the possibilities for earning cash in that area, the women have to earn most of the loans their husbands have taken.

In this male-dominated set-up it is no wonder that class and gender assumptions are reflected in the approach and conceptualisation of the Water Users gender composition. Additionally, in talks the argument was used that women are less educated and therefore less qualified to manage water facilities, and that women are too busy to attend meetings. The last argument may be true, but that does not justify their exclusion but should rather be a challenge to search for solutions.

At present we can state that there is a strict demarcation line in perception and actual behaviour that Water Users Organisations are a male domain, and that the Lao Women's Union is for women. The formal creation of new institutions to operate and maintain government supported irrigation schemes has created a new field of male authority and power as it originated in a social vacuum. Women are perceived as the followers and helpers of men, whereas in the daily practice of village life it is often the other way round.

The promotion of the appointment of women in Water Users Organisations at the management level and as members is an important part of irrigation development in which women can be strengthened. The reasons why women should participate are evident, and summarised in the conclusions of paragraph 8.2.

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<sup>17</sup> This is the Sustainable Irrigated Agriculture Project (SIRAP). The project has been established to provide support for irrigation scheme improvement (infrastructure, operation and management) and agricultural development in 7 provinces in Northeast Thailand and 3 provinces in Lao PDR. It is funded by the Netherlands Government and implemented through the Mekong Secretariat. The emphasis of SIRAP is on the involvement of government, farmers and the private sector in a development strategy based on a participatory approach. The strengthening of the women's role in water user organisations by gender awareness training is a main focus of the two Women in Development experts in the project.

#### 2.4.4 Deforestation and Resettlement Policy

The logging of forests on a wide scale is another threat which endangers the livelihood of, in particular, the Lao Sung and Lao Thung women. For them foraging of forest products is a question of survival. During field visits we met women who showed their small baskets with forest products they had gathered in order to secure the daily meal. Magda Maroczy (1986) is right in stating that in Laos forest and agriculture cannot be separated. People live from the products of both: agriculture and forest. Also women in our Lao Lum study village Vieng Xai supplemented their diet with mushrooms, wild berries, fruits, nuts, honey and all types of earthworms and shrimps to make soup.

A 'Women in Forestry' study (Ireson 1989) identified a village dependent on the forest for much of its nutritional and other needs, which had been critically affected by 'enterprise logging'. Other experience in other continents shows that with indiscriminate forest logging not only the environment deteriorates, but also the status and position of women as they are deprived of their main sources of livelihood. The same can be said on the prohibition of growing opium. Mainly women were the cultivators and sellers of moderate quantities used as medicine and drugs. They lost an important source of income which negatively affects their role and status in production as no alternative in development is offered to them. Moreover, the increase in environmental awareness in official government circles to protect the forest, has reinforced the policy in which tribal groups, practising slash-and-burn farming systems, are encouraged to leave the forest and to resettle in the low lands. Our field visits indicate that the resettlement of Hmong groups and Lao Thung people creates a very difficult position as in their new habitat they lack sufficient Na paddy fields. The result of fetching these people out of the forest is that the workload for resettled women increases. They have to compensate the Na rice shortage with the heavy Hai cultivation which was intended to be stopped

by means of resettlement. Our case-studies of Ban Dong Dan and Nong Ja Ma will illustrate this point very well. Besides, we came across two cases in which irrigation schemes have been promised to resettled groups, which afterwards seemed difficult to implement, and that again made the women more dependent on foraging.

An other alarming gender effect of the resettlement policy for women of certain communities is mentioned in the study of Escoffier (1994). She found that the year of resettlement of an Iko group was marked by an abnormally high mortality among children under five years. She writes that the mothers had some explanation for this high death rate,

In the mountains, the water was pure, the air was cool. There were no mosquitoes and children were not sick. Since we have come down, there are new diseases we did not come across before (Escoffier 1994, p. 60).

During the stay of Escoffier, there was a massive outbreak of measles, which had already killed children in the neighbouring village. No measles immunisation was carried out. She concludes that contact with the villagers in the plains, a lower immunity combined with a new life are factors resulting in a high death toll (p. 61)<sup>18</sup>. Acclimatization of resettled minority groups can be costly as the chances that children survive will be less. The women, as mothers, have to bear the main burden of the resettlement.

#### 2.4.5 Import of Ready-made Cloth

Weaving, in particular in the dry season, is a main source of cash income for rural households of all three ethnic groups. The import of factory-made cloth which compete with women's home-produced goods, is another threat that will have its future negative effect on the income position of rural women. The more so as it is accompanied by the import of notions that it looks

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<sup>18</sup> The same experience is mentioned by an UNDP official involved in a program to bring minority tribes down to the lowlands and away from their traditional opium harvesting by offering alternative fruit and rice crops (Vientiane Times, June 9-15, p.6).



more fashionable to wear jeans instead of home-woven cloth. The crucial meaning of the selling of hand-woven Lao skirts for irrigation development gets ample attention in our village case-study of Vieng Xai.

We could not substantiate the assumption that weaving has become less in those schemes where irrigation has raised the workload for women in the dry season. However, replacement of the mother by the elder daughters who take over the weaving work of their mothers was noticed, as the mothers lack time for weaving and have to spend their time to cultivate a second rice crop. This might be a disadvantage for this younger female generation as it hampers their opportunities to attend secondary education.



*Girl weaving at the loom under the house*

### 3. WOMEN STAFF IN CHANGING IRRIGATION OFFICES

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*What are the main reasons that so few women are employed in the irrigation offices and so few are studying to become irrigation engineers?*

*The reason is that labour of irrigation is not suitable for women, and women have to look after their children husband and the household.*

(Interview with male staff member at the Provincial Agriculture and Forestry Service Office)

#### 3.1 CHANGING APPROACH IN IRRIGATION DEVELOPMENT

Women staff in the offices of the Department of Irrigation in cooperation with the Lao Women's Union can play an important innovative role in strengthening the village women's role in irrigation development. And, what is more important, they should be given a position to make sure that the strong role of rural Lao women will not be undermined by negative effects of irrigation development. However, this is all future music, and will require a lot of human resource development and change in gender notions and perception. But, this does not mean that therefore we should just leave it, and be cynical. No, we like to draw lines towards a future scenario on how women in line departments can be prepared for their new roles, as it requires the development of new skills and knowledge, which are so far not available in the departments. Moreover, it needs a change in mentality, and point of view on what irrigation contains and implies, and what is the role of women in the irrigation offices. It is encouraging that in the development programme for the irrigation sub-sector for 1994 to 2000 of the Ministry of Agriculture and Forestry, a policy has been formulated which implies the increase of the participation of farmers (Water Users Organisations) and the recognition of the importance of the family farm in national development. This shows that changes are

going on, and that the engineering tradition, in which irrigation is seen as an exclusively technical matter, is becoming less acceptable. In the transition from a mainly subsistence economy to a market economy the irrigation concept is obviously adjusted and on paper an integrated rural approach is pursued. **We want to contribute to this hopefully new policy of community participation by showing the results of our participatory gender field studies and the related Women in Development approach.** Integration of gender analysis in the general community participation approach is necessary, as experience shows that otherwise community participation is primarily associated with male farmers, and that farm women are seen as an additional group, excluded when it comes to decision making and management.

What are the prevailing conditions of women in the irrigation offices? Women employees are very much under-represented in the various irrigation offices, the type of work they do is below the level of their ability and qualifications<sup>19</sup>. Their salary is low and that compels them to take up side-line income generating activities as pig and chicken raising, vegetable growing, small trade and stitching of skirts. Male assumptions of their roles determine the type of work allotted to them, which have been internalised by the women themselves to a high degree. They face problems regarding child care and housing. Incentives for an enthusiastic

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<sup>19</sup> The under-representation of women in public management and decision making ranks is not specific for irrigation but a general phenomena. Out of 65 members in the Central Committee of the Lao Revolutionary Party, there are now only four female members. Out of the 85 members of the National Assembly only eight are female. There is no woman minister in the Cabinet: only one woman occupies a minister-equivalent position, three vice-ministers positions, and three vice-minister-equivalent positions (Country paper, LWU, 1995, p.8).

work attitude are lacking. The women draw designs of dams but they have almost no opportunity to go to the field and to see the dam in reality. Nevertheless, some are motivated to have a more active and supporting role to assist the people in the villages. This context hopefully contributes to the understanding of the linkages we want to make between the women in the rice fields and the women in the irrigation offices. Our suggestions are presented in the last Chapter of this book.

## 3.2 REPRESENTATION OF WOMEN

The Department of Irrigation is one of the line departments of the Ministry of Agriculture and Forestry (MAF). The MAF consists of six line departments: irrigation, meteorology, forestry, livestock and veterinary affairs, agriculture and extension, and the department of personnel and training. These line departments have their offices at provincial (PAFSO) and district (DAFSO) level. The Department of Irrigation (DOI) at the central level has three main divisions: the administrative management division, the planning, finance and cooperation division, and the technical division. The Study, Survey and Design Center, formerly an integral part of the Department of Irrigation, has been designated as a state-owned enterprise since 1989. The Department of Irrigation in Vientiane has a permanent staff of 16 persons, of whom only three are women. Two women are officers of the finance & planning division, and the third one a secretary. In the room where the survey and designs are drawn we came across 11 women employees, and one man, as this work is considered suitable for women. Three other women work in the laboratory and are involved in (foreign funded) water testing programmes.

The Department of Irrigation is represented at the provincial level by the Provincial Irrigation Services (PIS), and at the district level by the District

Irrigation Services (DIS). The district level officers are very important yet, in the districts visited, no women were employed in irrigation activities, however we found in one case a very nice and gender-sensitive male officer. At the provincial level we came across some women in the PIS office, but in 10 out of 18 provinces there are no women at all employed at this level<sup>20</sup>.

We were told that in the whole country only 23 women are employed in irrigation, that is 4 % of the total of 521 men in the sector<sup>21</sup>. Savannakhet Province has the maximum number of women working in PIS.

The representation of women in the provincial agriculture and forestry offices is somewhat better.

Women staff working in the line departments of the Ministry of Agriculture and Forestry are very young, and form a minority in comparison with the male staff. Irrigation and forestry have the youngest average ages of the organisational units at 31 and 30 years. Few women in the Ministry of Agriculture and Forestry offices are older than 35 years. The female employees are in the age group of 23–29 years. The average period of service in the irrigation section is around seven to eight years (not gender specified). In main lines women are employed in the lower, and some in the middle ranks of the Ministry of Agriculture and Forestry and Department of Irrigation. As said the women staff is 'downgraded' and work below their qualifications as typist, or make coffee and ovaltine for their male colleagues and increasingly for male foreign guests. Figures show that women are under-represented in the high and low ranks and over-represented in the middle ranks (typist). All the 18 women in higher and middle level functions however, have had a technical training, which did not prepare them for the administrative and serving roles they fulfil.

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<sup>20</sup> These provinces are: Phong Saly, Luang Namtha, Bokeo, Oudomxay, Houaphanh, Xayaboury, Luang Prabang, Special Region, Bolikhamxay, Attapeu.

<sup>21</sup> According to the training expert's report, 8% of all 833 employed in the irrigation offices are women. Perhaps the difference arises as the women employed in the state-owned enterprises and Tad Thong irrigation school are also included. The relatively high percentage of female staff at PAFSO in Bolikhamsai in forestry is due to the Swedish provincial support programme. Almost all female staff members work in the Swedish financed forestry programme.

Among men in DOI, the opinion prevails that women are good or even better in activities such as drawing, administration and finance. If more staff is needed for these activities they are in favour of recruiting more women to do these activities. The majority of male employees in the irrigation offices stated that irrigation is not women's work. They obviously associate irrigation only with 'hardware', and lack awareness of the crucial importance of 'software'. They ignore that 'hardware' is embedded in a social context of 'software' which is of vital importance for success.

It is evident that the new community participation approach in the Department of Irrigation, and the new gender/women in development approach that we want to introduce will require more women staff members in future. One of the ways to pursue and to support this objective is to increase the number of qualified women. How to pursue that? The only educational institute which trains irrigation engineers is Tad Thong Irrigation School (TTIS) in Vientiane. In the current academic year 332 students from all over the country are enrolled at TTIS, of which only 13 are women, that is 4% of the total. A talk with the female students revealed that they knew more fellow girls from school who applied for the TTIS fellowship but did not get it. This means that there is more interest among girls than recruited.

### **3.3 REASONS FOR UNDER-REPRESENTATION**

What are the main reasons that so few women are employed in the irrigation offices and so few are studying to become irrigation engineers?

#### **3.3.1 Breadwinner and suitable-work bias**

As stated the first reason relates to the urban class value system regarding the division of labour, which assumes that the husband is the 'breadwinner' and the wife looks after the household and children. In circles of more well-to-do, educated middle-class families in Vientiane the withdrawal of women from wage labour was to a certain extent prevalent in the past, but it is our impression that it is becoming a more accepted status issue.

The second reason is already mentioned above and relates to the existence of gender and class biased male views on suitable work in irrigation for women.

#### **3.3.2 Kindergartens and Privatisation**

Schools, nursery schools and kindergartens are encouraged to privatise. Government subsidised units have been changed into much more costly private schools. This process takes place at a rapid rate. The collected data show that of the one to three years, and the three to five years nursery schools, there are respectively 6 and 29 government subsidised units in Vientiane municipality, but already 12 and 43 private kindergartens. The costs of subsidised kindergartens have increased considerably (the kindergarten for PAFSO members has increased the fee from 400 kip in 1993 to 1000 kip in 1994, but government kindergartens with a fee of 3000 kip are already reported) as the costs of the private creches are mounting (6000 to 7000 kip, this while the average salary of a women PAFSO employee interviewed (in February 1994) was 15,000 kip (+ social security fund of 5000 kip). For married women (and men) employees with small children this is too much of a financial burden and that, together with the 'male breadwinner' and suitable-work ideology, does not encourage women to seek employment. The following field notes sketch the specific situation of a highly educated woman employee,

Her son of 18 months is sleeping on the floor of the office. She studied in Rostock and can speak German. She is an irrigation engineer. In 1982 she came at the Department and was sent to the German Democratic Republic. In 1991 she came back. She married a staff member of PIS in Germany.

She had 10 months maternity leave. Officially it is three months but the baby was suffering of fever and therefore she stayed at home. She and her husband come to the work early in the morning on a motor cycle with the baby. They live seven kilometer from the office. The parents live in Vientiane and cannot look after the

baby. They cannot pay a 'baby-sitter' who looks after the house (costs will be sometimes 15,000 kip). They live in a government house and they save money for a private house. They work from 8 am to 12 noon and from 2 pm to 5 pm. In three months there will be a place in the private kindergarten for the baby, but that will take a large share from her salary.

Only in Xieng Khuang did we discover to our delight a creche in the PAFSO compound with eight children of ages in between three months till three years. There is even a pre-school for toddlers of three to five years with 25 children. Children from the neighbouring houses are welcome. It costs only 200 kip a month. The monthly fee in the Government creche in Phonsavanh for a full day is 3000 kip. One of the women states that the existing child-care facility makes it possible for her to work at PAFSO, which is located on the outskirts of the capital Phonsavanh. The employees in the office of the PAFSO all stated that the creche is a 'left-over' from the past but that it is of great help to perform their duties well. It seems that the creche in the building of the Department of Irrigation in Vientiane was closed in 1988.

### 3.3.3 Sex-bias in education

We found that in general the women in the offices have less education, which means that they are lower rank officers in comparison with men and consequently get less pay. The following field notes give an impression of the situation,

We talk with a woman employee in the financial section of PAFSO. She takes care of the salaries of the coordinators: 140 men and 17 women. The 17 women are organised in the Lao Women's Union. At meetings they talk on problems of the work. Actually there is a difference in salaries between men and women. Women earn less as they have less diplomas. In case they have the same qualifications they earn the same. The minimum salary is 15,000 kip and the maximum 20,200 kip for a coordi-

nator (February 1994). She has worked at PAFSO since 1988. She had studied economics, planning and finance in agriculture. The government told her to work in this department.

In relation to the previous point we fear that the parents of a young girl may not consider investment in education to become an irrigation engineer or a land surveyor to be worthwhile.

Unfortunately, experience in other countries shows that higher income families tend to prefer private education as being more valuable for their children than government schools. In view of the gender-ideological values there is a tendency that relatively more boys than girls are sent to secondary private schools, as it is anticipated that the investment will be more rewarding in the future. Further investigation has to be conducted, but the figures we collected already show a slight sex ratio difference in favour of boys in private secondary schools.

### 3.3.4 Reduction of Government staff

Finally, we have to mention that a drastic reduction of government officers is foreseen till the year 2000 in order to 'free money' for infrastructure investments. This applies also to the staffing of the line departments of the MAF at all levels. Existing staff are given several options: older staff are encouraged to retire; unqualified staff are given opportunities for further training; low-level staff (called 'no level staff') are being encouraged to start a farm or a private trade. This policy makes it clear that recruitment of new staff will be much tied to urgent needs, and limited to those with very good qualifications. In this context options to propose more qualified women as employees in irrigation offices looks unrealistic, but few will object to our proposal to train and better equip the women at this moment employed as Government staff members.

### 3.4 THE NEW WID APPROACH OF THE LAO WOMEN'S UNION

In the following paragraph attention will be paid on the Lao Women's Union. This organisation is the only one working with women at the local level, and therefore of crucial importance in the purview of our efforts to strengthen women's roles in irrigation development.

In Laos the Lao Women's Union (LWU) is the only mass organisation mandated to advocate women's rights and gender concerns. Jacquelyn Chagnon (1994) states in her evaluation report (1995) that since 1988 the LWU has broadened its mandate of socio-political mobilisation into rural development. According to her evaluation she made on behalf of the Swedish International Development Agency (SIDA), the Lao Women's Union has developed some notable strengths in recent years, such as:

- An extensive grassroots network encompassing half the female adult population.
- Access to government and party authorities at all levels.
- More ability to penetrate into difficult ethnic minority and remote communities than mainline government departments.
- More trained Lao staff in integrated village development than any other institution or government office.
- A reputation for high commitment, integrity and productive results in village development.
- A respect among district and provincial officials for its integrated development approach.

We wholeheartedly confirm the existence of these new qualities of the LWU on the basis of our experience during our gender studies. In every province we visited, visits were made to the offices of the Lao Women's Union. We discussed the activities carried out by them, and explored in what way the LWU can contribute to strengthen the role of women in irrigated agriculture, preferably in cooperation with the women staff members of the irrigation offices. Therefore, we enjoyed the pleasure to be accompanied during our studies in the four villages by a representative of the

provincial or district LWU office. Participatory gender studies proved to be an interesting 'meeting-point' to enhance the cooperation between the women of the irrigation department and the women of the Lao Women's Union. As mentioned in the previous, both organisations participated in our 'learning by doing' exercise.

Our studies show that the LWU is able to reach women of all ethnic origins in remote areas. Even in the small Hmong hamlet a very capable representative of the Lao Women's Union was actively functioning. The provincial units of the Lao Women's Union in Xieng Khouang and Khammuan have an excellent knowledge and wide experience with the implementation of existing programmes of UNICEF, NGOs and other development organisations. During our workshops in the provinces it was revealed that these programmes and projects are unknown at the line department at the provincial and district level. We visited villages where LWU had initiated and implemented income earning activities such as weaving, handicrafts, rice bank, revolving funds, sales outlets, etc. One of the most successful initiatives is the opening of a tourist shop at the airport of Phonsavane in which ethnic embroidery work is sold.

At the provincial and district level a women representative is in charge of Women in Development. In particular in Khammuan Province it was found that the women in development representative of the Lao Women's Union was very active in working in close cooperation with many international agencies. Programmes are based on surveys conducted in the villages of the districts where the programmes are planned. The LWU has its own training centre in Vientiane where they train Women in Development representatives. Its training and work focuses on:

- improvement of the quality of life of the household (clean water programme, rice bank, hand pumps, water jars, standpipes with taps, etc.);
- promotion of income generating activities (handicraft, horticulture, chicken raising, bio intensive gardening, natural dying).

The important mobilising role of the Lao Women's Union at village level in the small traditional irrigation schemes is to organise farm women and grown-up girls to support the construction, maintenance and repair of irrigation canals, dams and reservoirs, and to cook for the male volunteers. This will be elaborated in the following four ethnic gender specific irrigation case-studies.



*Fetching drinking water*

## 4. BAN VIENG XAI: BEAUTIFUL WEAVING FOR THE WEIR AND FOR SUBSISTENCE

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*The number of children is increasing but the production land is the same, and it will be worse when the weir is not reliable, the money from weaving has to cover all the needs of the people.*

(Lao Women's Union village leader)

### 4.1 VILLAGE PROFILE

Vieng Xai is a village located in Vientiane Province, Vang Vieng District, 150 kilometer north of Vientiane Municipality and approximately four kilometer to the south of Vang Vieng District Headquarters. The village has a good traffic connection to Vientiane: there are two buses a day to the capital. These buses are used by the women to sell their handwoven Lao skirts in the market. Road No. 13 and Ban Khua Nam Lao village are in the north and Ban Huay Ngam village in the south. The Pou Gnang mountains, the Nam Kuang stream and village Ban Pong Sung are to the east. The Nam Song River passes through the village.

The present population of the village originates from three large families who lived in Houaphanh Province, in Mouang Hiem District. They practised low-land rice cultivation and slash-and-burn. In 1960 they decided to move from the resident village to the lower plains of Vientiane, as there was a shortage of suitable land for lowland rice fields. Moreover, they wanted more education for their children. The first three years they settled in Kasi District in Vientiane province. They opened new rice fields and started rice cultivation. They planted Mulberry trees for the feeding of silkworms raised by the women in their houses to produce silk. The women are by tradition very skilled in silk weaving of skirts and other cloth for their own use.

Unfortunately, there was a dispute on the occupation of the land with the local people and they were chased away. In 1963 they moved to the location of Vieng Xai, which was at that time a big forest inhabited by wild animals.

The number of villagers is at present 988 persons. As usual in Laos there are more women (504, 51%) than men (484, 49%) as a consequence of the war conditions. The population is from Lao Lum ethnic origin and consists mainly of Thai Daeng (95%) and Thai Dam (5%) ethnic sub groups. Their original religion is *Pham* (the belief in ancestor spirits), but now they practice Buddhism as well. The reason they mentioned for this change was exceptionally practical: they wanted to save time, money and energy. As an example they told that in *Pham* tradition a funeral takes three to seven days, in which they have to bury the person under a nice graveyard house, in a nice place with a lot of food and costly ornaments. In Buddhism it is a question of one day in which the cremation and giving of some presents can be finished.

According to the villagers the difference between the Thai Daeng and Thai Dam households is that the first ones have become more Buddhist than the second group. It seems that the Thai Dam can also be identified by their different pronunciation of some Lao words. The assimilation of the Thai Daeng in Lao Lum culture was gladly noticed by us in enjoying an enormous *Baci* ceremony on the occasion of our stay in the village<sup>22</sup>.

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<sup>22</sup> The *Baci* ceremony of prayers and good wishes is a century old Lao custom. It is conducted by a respected elder of the community and aims to restore balance and harmony to an individual or community. Thin white cotton strings are tied around the wrists and the Lao-lao (rice wine) is passed around. In our case more than 60 cotton strings were tied around our wrists and we were presented with beautiful hand-woven Lao skirts made by the women of Vieng Xai. After that a delicious feast-meal was offered.



Vieng Xai is a large village with altogether 146 households, of which women of twenty households were interviewed, and in which several group discussions took place. The participatory method was used in drawing of maps and in making an overview of the division of labour according to sex.

The houses are built on both sides of the road, in the traditional style of Lao Lum: wooden houses on pillars with roofs of bamboo or iron sheets. The differentiation in socio-economic status of the village households is easy to see by the character and the size of the houses. Those with bigger cement posts, roofing of iron sheets, or newly built in bricks, are of the families with a better income, mostly acquired from selling their rice surplus. Only three households have a T.V., running on batteries as there is no electricity in the village<sup>23</sup>.

There is one kindergarten and pre-school class with 60 children in total, one five-class primary school with nine classrooms. There are ten teachers, of which four are women. For attending the secondary and high school, children go on bicycle to the capital Vang Vieng. Some youngsters of the village study or work in Vientiane, mostly living with relatives.

Annex 4.1 reveals that more girls than boys attend the primary school. The drop-out of girls in comparison with boys starts at the secondary school level. All respondents stated that they wanted their children, in particular sons, to study at a higher level of education but poverty is the main obstacle to realise that. There is no health service in the village. Three 'health volunteers', mainly assist the health activities of the medical officers in the District. Villagers have to go to the hospital in the district capital Vang Vieng when they fall ill. There are four rice mills to relieve

the domestic labour of the women. Some small soft-drink shops sell Pepsi-Cola, Seven-Up, Mirinda, western cigarettes such as Marlboro, Dunhill etc, biscuits and other snacks. There are some grocery shops, and three small drug stores have just opened. For transport mainly bicycles, carts, and boats on the Nam Song River are used. When there is an emergency, especially at night, there can be a problem.

The village is managed and administered by the village head: the *Nai Ban* or *Po Ban*. He is elected by the villagers, once in two years. The present *Nai Ban* has already been in charge for four years<sup>24</sup>: he is a capable man with a large family and relatively little land, only 0.6 ha, which is below the average. The assistant village head replaces him when he is absent. To maintain 'law and order' a policeman from the District is posted in the village. Besides these formal representatives of the administration there are five formal organisations:

1. Youth Organisation: members are males and females in the age group 15 -30 years. Their main activities are to organise labour for digging the canal and the boat race<sup>25</sup>.

2. Women's Organisation: Lao Women's Union, 60 members (11 groups), only women in the age category 25 up to 55.

3. The Front of Reconstruction: elderly's organization; members: elderly (55+) males and females.

4. Farmers Group: members are male heads of household, women can be a member if they are widowed or divorced.

5. Three Water User Groups: composed of neighbours with adjacent fields and a Water Users Committee Board with a coordinator of the groups. The members overlap with the Farmers Group.

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<sup>23</sup> It is expected that next year the electrification of the district capital Vang Vieng will start. Oil lamps and small generators are used in the night to have some light.

<sup>24</sup> In December 1995 we found that he was replaced by a newly elected village head, which shows that the system works.

<sup>25</sup> We were so lucky to be able to watch the boat race at Boon Ok Phan Sa (Buddhist full moon festival, end of seminar time) on the Nam Song river.

## 4.2 IRRIGATION HISTORY

Two gravity schemes are managed and maintained by the members of the farmers households. The most important is the Fay Na Xai Ngam weir, located four kilometer north-east of the village. To reach the site, the Nam Xong river has to be crossed. We crossed the river by foot in February 1994 with much laughter and wet clothes, as the current was very strong. In October we had to take a fragile motor boat and admired the navigation skill of the boatman as the current was even stronger. After reaching the other side of the river we walked through large stretches of paddy fields. The scheme is intended to supply irrigation water only for the rainy season: in the dry season it cannot be used because of insufficient water.

### – The former weir

The former weir was a large traditional wooden one on the Houay Nam Kouang river. It was constructed by inhabitants of three villages (Ban Vieng Xai, Ban Phon Seng, Ban Huay Ngam) in 1974, and completed in 1976 with the digging of the main canal of 3700 m long. In that year the farm households started to use the weir to irrigate their newly opened paddy field area of 82 ha.

Inherent to the traditional irrigation system is the fact that a maximum of community participation and involvement of the users is taken for granted. Every year the villagers organised communal work-groups to strengthen, or rebuild, the dam and to maintain the irrigation canal. In the course of time the dam became larger and larger, finally reaching 170 m of length. All these activities were carried out with participation of all household members: men and women from 92 families gave two to three days voluntary labour varying from five to ten times per year. Every year it costs a lot of energy, time and resources, especially the wood cutting from the nearest forest, as the distance to transport the wood became greater year after year.

In 1993 the village faced a disaster resulting in a severe drought. Irrigation water was urgently needed,

but unfortunately the dam was destroyed by the enormous flow of river water as a result of heavy rains. The damaged weir was the third one which had been reconstructed that year. The farmers transplanted rice seedlings three to four times, but every time the cultivation failed, as there was no water. Ultimately, the farm households could only harvest 30% of the usual output of rice and on average they had food for only three to four months in 1994. During interviews the farm women told us about the dramatic consequence of this failure of the irrigation dam: they had to sell their buffaloes, take out loans at the rice bank with an enormous interest rate<sup>26</sup>, and the women and girls of the household had to weave day and night to make skirts to sell in order to obtain cash income to buy rice.

That is why in the year of our investigation (1994) there was an overall shortage of rice in the village. This rice shortage could not be compensated by taking up shifting cultivation at a far distance, due to a lack of time, as the villagers had decided to spend 45 days to construct a new, and more solid weir of rocks. They wanted to prevent another drought in the next year.

### – New weir construction

Therefore, they established after an NGO training Water Users Groups – for the first time in consultation with the District Irrigation Officer – and decided to construct a better dam in the framework of the Nam Kuang project. Two villages (Vieng Xai and Huay Ngam) participated, consisting of 92 households and a population of 699 of which 365 females. The total size of paddy land is almost 83 hectares, and it is expected that 21 hectares can be added with a successful irrigation scheme. The Water Users Committee was of the opinion that the constant tree cutting for renovating the old dam had a detrimental effect on the environment. They decided to contribute to the investment of a new weir, to be constructed about 200 meters upstream to the North, where they could reduce the length to 14 meters and build a stronger one with a combination of wood, rock and cement. The new irrigation canal has

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<sup>26</sup> If 100 kg of rice was borrowed, 200 kg of unhusked rice had to be repaid in one year.

on one side a cement–rock construction to prevent land erosion, but there was no money left to make the same construction at the other side of the canal<sup>27</sup>. Unfortunately this side collapsed shortly after the rains started.

The District Irrigation Service Office cooperated with the villagers and made the weir design, and supplied technical recommendations to the Water Users Committee for implementation<sup>28</sup>. According to their specification they financed a total of 443,800 kip in the scheme<sup>29</sup>. The farmers contributed 2,200,000 kip in cash for cement, rocks, sand, bamboo and truck hire. They gave a total of 3618 free labour days, which have a value of 5,427,000 kip (at the daily wage rate of 1500 kip). 960 days were counted as female labour days. It was also advised to change the height of the dam as it will otherwise lead to destruction of the irrigation canal.

As connection to the old main canal the villagers dug a new and deep canal of 338 m long. They also provided long logs of hard wood with different diameters, as well as earth and rocks hauled to the place by truck. The village chief stated that the amount of wood utilised is roughly equal to the volume for constructing four to five large wooden houses.

The digging of the new canal has been shared by all families. Each family has removed 30 m<sup>2</sup> earth to dig three meters in length of the irrigation canal.

Women contributed to the digging, as a lot of labour was needed. Those who were not able to do the work themselves hired labour of outsiders, which cost them a large amount of cash. Already in debt because of the food shortage, and the weaving capacity already exploited to the maximum, the families sold their last cattle. Girls and women were continuously at the looms to raise the money for a more secure irrigation system in order to avoid a subsequent disaster in the near future.



*Digging the irrigation canal in Vieng Xai*

The construction started in November 1993 and lasted till March 1994: in total 15 days were spent on the dam, and 27 days on the canal and some days on other works<sup>30</sup>. During our second visit to the village in May 1994, the whole community was occupied at the weir for the rehabilitation of the mentioned collapsed

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<sup>27</sup> In fact they lacked an amount of 360,000 kip (USD 500) to finalise the work in such a way that it secured their irrigation needs for a few years. After the huge amount they had invested it is very sad that they were unable to collect the final 10%, but there were no reserves any more. The women had to spend their time with searching bamboo shoots in the forest to provide for the daily meal.

<sup>28</sup> There are 3 irrigation officers in the District at DAISO. Two are assigned to the Upland Project.

<sup>29</sup> In this amount the per diem for the irrigation staff of 80,000 kip is included, but they reported that so far they have not received this amount.

<sup>30</sup> Construction and digging of the canal took place in three stages:

Stage 1: from 15–10–93 to 24–10–93

Stage 2: from 1–01–94 to 11–01–94

Stage 3: from 13–02–94 to 18–02–94

On 18–02–94 the canal digging was completed.

– Total of canal digging work days = 27 days

– Weir construction (wood + mountain rocks on slope) = 15 days

– Cement construction on canal = 3 days

slope at the head of the canal. The members of the Water Users Group (WUG) were met on site. The leader was working in earth digging just like the farmers and farm women. The women complained, and worried very much about the solidness of the new irrigation system, which still not seemed to be ensured. They complained about their plight that after all their work and investments the construction did not seem to be solid. The self-reliance of the people was impressive. The idea to request financial assistance from outsiders did not occur to them. The role of women in construction, cooking food for the voluntary workers, and in particular the financing of the new weir and canal will be discussed more in detail in the following paragraphs.

#### – The planned future weir

During our third visit to the village in November 1994, farmers told us that it is expected that the new dam will only last for three years. This year there was a good monsoon and better irrigation: they expect a 95% successful rice crop, with a yield of 2.8 tonnes per hectare<sup>31</sup>. But what to do after three years? To our surprise we were told by the head of the District Irrigation Office that the villagers need not to worry as the irrigation scheme has been formally incorporated for total upgrading in the official Five year Planning and Design Programme of the Department of Irrigation. The scheme has been selected on the following criteria: feasibility of the area, and the motivation of the people to cooperate and to participate. How water fees will be collected is not yet known. A pilot project is carried out in the district financed by the NGO 'Community Aid Abroad', in the Namkhan–Nammon project<sup>32</sup>. It is expected that water fees can be paid in money and rice: a rate of 100 kg rice per ha (value 10,000 kip) is mentioned as an acceptable amount. Of the fees 20% will remain in the village for maintenance. A revision of an old irrigation survey of the area will start next year. The scheme will be constructed with a loan from the World Bank. The Lao Government is supposed to repay the loan.

### 4.3 THE POSITION OF WOMEN

#### – Residence pattern

Although the Thai Deng and Thai Dam groups belong to the Lao Lum ethnic group, they have no tradition of matrilineal residence patterns and matrilineal descent and inheritance patterns, as the majority of Lao Lum groups usually have. The Thai Deng and Thai Dam originally have a culture of a more 'tribal' character, and follow patrilocal residence patterns. This is not a strict custom as our findings show: seven out of twenty women replied that they live in their mother's house, one replied that the house is the property of both spouses, and 13 women stated that they live in their husband's house.

Obviously, nowadays patrilocality is not such an essence of men's male ego to live with his wife in his house. In former days this was a strict custom and one woman said that the former household of her husband's uncle, living in a village in Muong Hien District, consisted of 51 people in one house: all sons with their wives and children. At present it is accepted that sons move out and have other jobs. In that case the daughter stays at home and a son-in-law is invited to live in the house of his wife.

The matrilineal influence is also reflected by the fact that of the 20 women, 12 replied that they have female relatives such as sisters, mothers, and cousins living in the village. Studies show that in-married wives, have more support and attention when surrounded by their own female relatives than in strict patrilocal conditions in which the female relatives are all in-laws. The residence pattern in the village showed obvious traces of an assimilation to the more 'matrifocal' (mother-centred) culture of the Lao Lum in general. Also in Vieng Xai we found this atmosphere of a collective spirit among women emerging out of women's roles, which create a power base within a patrilineal framework.

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<sup>31</sup> The farmers use a traditional variety, no fertilizers, no pesticides and no herbicides.

<sup>32</sup> Community Aid Abroad provided USD 12,000 for the construction, farm training and rice bank. Unfortunately the weir could not be finished as it will require another USD 3000.

The average number of years of residence in the village was rather high: almost 17 years, which means that residence patterns are rather well rooted.

### **– Age, size and composition of the family**

The average age of the women in our sample is 44.5, while that of the husbands is 47. Younger women are under-represented in our small survey, the main reason being that on the days of the interviews all the younger women were busy reconstructing the irrigation canal, while the older women were in the village to look after the household work, and after the cooking for the volunteers restoring the irrigation canal.

The total population of the twenty households is 125, composed of 17 husbands, 36 daughters and 44 sons. Above 60+ we could trace five grandmothers and three grandfathers. The highest age mentioned of a grandfather was 80 years.

Ten households are joint households of three generations, including grand-parents, or one of them, and an adult married couple and their children. There are nine nuclear families, consisting of father, mother and their children. Only one household consists of only mother and daughter. There are two widows: both live with their son, daughter-in-law and children. The average household size is just over six persons but the three largest households we interviewed have 10, 11 and 13 members. In joint household women can share domestic, and agricultural labour more easily than women in nuclear families.

### **– Marriage, bride-price and deliveries**

Love marriage is widely accepted, and wedding arrangements are made with the mutual consent of both parties: the boy with the girl, and both with their

parents. Enforced arranged marriages without the consent of the girl are unknown. The average age of marriage of the women in the study was 17 years, ranging from 16 to 22. The data does not show a trend towards an increasing age of marriage for younger women, but the sample is of course too small to draw any firm conclusion.

The dominant custom is that in the first night after the wedding ceremony, the bride is sent to the bridegroom's house. The young couple lives here for some years, and then move to their own house, which might be of bamboo during the first years, and improved with wood and a tin roof after several years, depending on the economic situation, and mostly on the success of rice production.

The bride price is the usual marriage gift in Laos from the bridegroom's house to the bride's family. In different cultures the bride-price system, in contradiction to the dowry system, expresses a high esteem and value for women, as it is based on the recognition that the parents of the girl face a loss, as their daughter will look after the in-law family after the wedding<sup>33</sup>. To compensate this loss the bride-price is given to her and her parents.

In the past the bride-price was given in silver but at present (since 1975) cash is more important. Our study reveals that five out of 20 bride-prices were given in silver and 15 in bank cash. The amounts in cash given showed a great variation and ranged from 5000 to 50,000 kip. When we had a group meeting the women told us that in all cases the parents of the bride will present buckets, pillows, blankets and mattresses to the new couple. In former days sometimes also a silver bar was given, but nowadays this is replaced by a gold chain with a Buddha image. If possible, parents try to give their daughter a cow or buffalo.

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<sup>33</sup> In the dowry system, which is the dominant system in South-Asia, the parents of the bride have to give much money and all kinds of presents (bicycle, scooter, house, T.V., computer, etc) to the parents of the bridegroom. This implies the tacit recognition that the young wife is not considered to be productive, and will only cost money for the in-laws. The dowry is seen as a economic compensation and an economic security system for the girl to be treated well.

One woman said that after the wedding ceremony she went to her husband's house. A Baci ceremony was conducted and her 'in-laws' gave her valuable antique skirts. She showed us the skirts. They represent the fabulous crafts-womanship of the family and were made by the great-grandmother of her husband. They must be 70 years old. The patterns of the design are unique, and one skirt was used in an art exhibition. In this way the in-laws preserve and perpetuate the weaving skills of the daughter-in-law by encouraging her to learn from designs made long ago<sup>34</sup>.

Our small sample reveals that all women gave birth at home, in three cases women went to the hospital in view of complications. They usually use a piece of boiled bamboo, or scissors for cutting the umbilical cord, which is then tied with a boiled cotton thread. One woman reported,

All the deliveries were in the house. Only her last son was born with the help of the village nurse as the placenta did not come. With all deliveries she was helped by her husband and mother-in-law. She cut the cord of all her children herself with the bamboo knife (*mayhia*) which had first been boiled. She cut it herself, as birth is a status sensitive occasion and therefore her mother-in-law could not do that as it will degrade her age status. Only with her third daughter did her husband cut the cord. Her husband had boiled the water and he had washed her and the baby afterwards.

The replies on the question 'who helped you to deliver the baby?' revealed that in 15 cases out of 19, the husband assisted during the delivery (see Annex 4.2). This information shows the flexible and equal

gender relation within the very intimate private domain: in no way it is considered as lowering the status of men to give full attention and support in deliveries. The fact that to cut the cord is considered as lowering the age status of the mother-in-law tells us that sex is a less important criterium in the social ranking system.

The husband cares, especially during the period of *You Kam* (the first month after delivery) for mother and child. During this time the young mother adheres strictly to the traditional rules of taboos around food and daily household chores. The husband takes over the responsibility for household work. It is the custom that the young mother should take, if possible, ten times a day a hot bath. She has to drink herbal tea to stimulate lactation. In Vieng Xai at least 20 herbs were known to make the tea. The husband and the female relatives make a charcoal fire under the bed<sup>35</sup> of the mother of the newly born baby and cook special food according to the following diet:

First day: rice and salt. Second day: added vegetables. Third day: chicken and soup. Fourth day: fish/chicken and fruits. From the fifth day this food pattern is continued for one month. It is forbidden to eat eggs, papaya, and chilies. The fear is that these foodstuffs will be harmful for the recovery of the womb. These details substantiate the view expressed earlier that the positive gender relations which support the relatively high position of Lao Lum and other women, can best be illustrated by the habits and customs around pregnancy and deliveries. The findings in Vieng Xai substantiate our impression that it looks as if Lao culture, aware of the crucial economic role of its women, has developed utmost favourable and affectionate customs and behaviour to ease the biological role of women as much as possible.

As the average age of the 20 women interviewed is rather high, we may assume that the families in our study are almost complete regarding the total number of children. The 20 women had altogether 141 babies,

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<sup>34</sup> The women could tell me the meaning of very abstract designs such as 'flowing water', 'the lion', 'the spider', etc.

<sup>35</sup> The heat of the fire is supposed to have a healing effect on the uterus.

which comes to an average of seven babies per woman, which demonstrates the tremendous motherhood role the women fulfil and the time and energy they have to spend on that. Later we will see to what extent motherhood has an impact on the role of women in agriculture, and decision making in irrigation.

**Table 4.1 Frequency of children born according to number of mothers**

Number of children born	2	3	5	6	7	8	9	10	11	12
Number of women	1	1	3	1	4	5	1	2	1	1

Of these 141 born babies, 26 died. It was striking that of the four mothers who had ten and more children, the mortality rate of children was the highest: in three cases three to four children died. The women said that the main reasons for the death of children were malaria, drowning, measles, fever, accident, and sometimes they did not know. One child died because of the war. The child mortality rate is fortunately not so high as that of other ethnic groups in the country, but consequently the growth rate is eventually high as well. The woman village leader emphasized that it is one of the main 'problems of women'. She said,

The number of children is increasing but the productive land is the same, and it will be worse when the weir is not reliable, the money from weaving has to cover all the needs of the people.

She stated that family planning is absolutely necessary. The women do try to find solutions and consult the drug traders, who usually advise them to take contraceptive pills. Some women go to acknowledged doctors for recommendations. In Vang Vieng District the national programme of birth spacing, implemented by the Lao Women's Union is not yet practised. The women have a naturalistic view of their body and they worry about the long-term use of chemical pills, but

they could not find a better alternative. They wonder whether the sterilisation operation will affect the strength they need to do physical labour.

On the other hand, our visits to several families made it absolutely clear that having many children is a great asset for women, as they are very much assisted by their children in their responsibility to maintain the family. Children contribute very much to subsistence and cash raising, as they possess skills and resources which can be optimally used. The characteristic of Asian culture to subordinate individual interests for the sake of family interest was observed many times. It was found that children themselves, when they reach the age of adolescence, and become aware of the unfavourable economic situation of the family, usually take their own decision to start earning for the family. In the case of large families, it is usually the older girls who sacrifice their education to create opportunities for the younger to study. In almost all cases women said that they preferred sons to have higher education in comparison with daughters, as boys 'will be responsible for the family in the future'. This does not reflect reality as we shall see below. Only in one case was the argument given that girls can help the family by getting a good education and by weaving in their free time and vacations, and that, on the contrary, boys cannot provide such a 'privilege'.

The following report on a visit to a family gives an impressive illustration of children and parents working together to sustain the family:

We go to Boun, a small thin woman, with a charming round face and pretty eyes. She has a headache from walking in the forest searching for bamboo shoots. Therefore she has put three plasters on her face with balm under it. It helps her recover. Four daughters are busy weaving under the house where it is already quite dark. Two of 16 and 14 years have their own loom. Two daughters of 12 and 10 share a loom. The girls have learned the skill from their mother when they were around eight years just by looking how she did it. The girls work early in the morning and when they come from

school. Boun goes to Vientiane every fortnight to sell the skirts (4 to 5 in a week). She sells each for 5000 kip. Selling is no problem. Sometimes the buyers take ten skirts. She buys the cotton material in Vientiane in huge quantities, 'that's cheaper'.

In all there are six children. A small boy is making a glass window for his under-water goggles. He has a rubber frame and uses tar from the asphalt road to fix the glass in the rubber. He uses this to look under water to catch fish in Nam Sung river. He will go at six o'clock in the evening and come back late: not until ten in the evening does he have dinner. It is also his task to feed three pigs.

Last year they invested 13,000 kip in the wood logs for the weir. The money came from the earnings of the weaving of the girls. Her husband is a school teacher at the primary school and earns 47,000 kip a month. *The wage increased last year.* Formerly, it was 36,000 kip.

#### **4.4 WOMEN'S ECONOMIC ROLES**

##### **– Economic resource base: land**

The following example shows that by tradition Thai Deng women do not have the same rights of inheritance of property and land as men. One woman said that,

Her husband inherited the house and property for the following reason. His father remarried a woman who had four children from her first marriage. He was the only son of the father and his new wife. The others are half-brothers and sisters. Children from father's side are entitled to inherit, but children from mother's side have no rights.

The data on land ownership and inheritance patterns show that all possible combinations can be

found. The results of our study among 20 respondents show that in 11 cases the land was bought together by husband and wife. That it was not recognised as 'common property' can be deduced from the replies on the question 'in whose name is the land registered?': seven cases were in the name of the man, one in the name of their son, one in the name of the woman of the house as her husband had died, and only two in the name of both. In three cases the husband inherited the land of his parents and it is registered in his name. In one family the land was inherited through the wife's and husband's parents and put in the name of the wife. There was only one case of extreme male dominance: the land was inherited through the wife's parents but registered in the male's name. A widow stated that her husband's land was put in her name. In one case the inheritance pattern was unknown.

There is no relation between matrilocality and land inheritance pattern. The couple can live in a house owned by the wife but cultivating the land owned by the husband and inherited through his parents: the other way round also occurred. These findings make it clear that although the dominant pattern of patrilineal inheritance of land exists, which usually gives a male dominance in gender relations, this trend is flawed and smoothened by matrilineal and bi-lineal influences from Lao Lum culture.

##### **– Paddy cultivation**

Rice cultivation in the rainy season is the main agricultural activity of the villagers. The labour force for agriculture consists of 180 women and 162 men, total 342 persons. There are labour exchange groups of ten families having adjacent plots of land. They join hands in transplanting and transporting of rice. Buffaloes are the only means of traction. The farm households have never used chemical fertilizers. In the dry season the land is used as pasture land and manure is provided in a natural way. They said that the land is already fertile enough on its own. The crops are good, provided water supply is sufficient. The main occupation of all households is farming; even the teachers of the school practice rice cultivation. When women go to the paddy field children are looked after by a wide range of relatives.



The success of the harvest differs from year to year, and is of course related to rainfall and soil condition. In a normal year about 10% of the households has a rice surplus, 50% has enough for the whole year, and 40% of the households face a shortage of rice. But farmers compensate the rice shortage with shifting cultivation, although this has become less and less owing to the government policy to discourage shifting cultivation. The drought of 1993 caused by the damage to the dam has been described in detail in the previous section. The consequence was that only 30% of the usual rice harvest was obtained. The paddy production covered only three to maximum six months of the food needs for the year in the majority of the households studied. That is why this year (1994) there is an acute shortage of rice.

#### – Size of paddy land

The size of the rice field share for each family has been decided during community meetings in which the size of the family and the available labour force were taken as criteria for the distribution. Every family (men and women) fully accepted the allotted share. Normally all of the suitable land for paddy fields is used, so there is no more space for expansion. Ten families who settled in the village later have upland shifting cultivation land. The sizes of these Hai plots are very small: from 50 to 700 m<sup>2</sup>, the largest one being 8000 m<sup>2</sup> or 0.8 hectare.

The figures for the size of Na, or lowland paddy fields are as follows:

**Table 4.2 Size of paddy fields according to number of families**

Size of land	Number of families
Less than half a hectare	1
Half a hectare	3
Half to one hectare	11
One to two hectare	5

The largest piece of land (two hectares) is owned by a family with 13 family members. The paddy fields are one hour's walking from the village, and as said before, a river has to be crossed to reach them. In the wet season the men stay in temporary huts in the fields. The women have to walk to and fro to bring food. If they have parents to watch the children the women also stay in the temporary huts.

Last year the women organised a rice bank<sup>36</sup>, and it is unfortunate that this year they are unable to have one (as a result of the bad harvest) as now they need it the most.

Ten families have Hai fields of which five families have no Na paddy fields; they are considered as the 'landless'. To understand the roles and problems of landless young women we present the following case,

We visit Nang Soy. She is busy swinging her baby in a cloth cradle under the house. The house looks poor and is made of bamboo. A cooking fire is on the veranda. She is 25 years old and has a husband and two small daughters: one four years and one two years. They have lived for three years

<sup>36</sup> The establishment of a rice bank aims to enable poor rural households with a shortage of rice to break through the debt trap. A donated stock of rice, with a government and local contribution, is kept as a buffer food stock for the poor farm families for about three to four months at the beginning of the agricultural cycle. This reduces the need to borrow rice from rice merchants with extremely high interests, and the conditions are created for these households to remain in the village to work on their own rice fields. Most successful rice banks have been initiated and managed by the LWU in Khammuan province.

in this house. A relative shared his land with them but they had to pay 40,000 kip for the place. They paid from the cash she earns with weaving (two skirts a week). They have no paddy land. They want to buy but they have no money. They have a Hai field far away. It can be reached by boat, and two to three hours walking. To open up the land they stayed (with the children) for ten days (planting seedlings) in the forest. Then they came back for one week, and went again for weeding. During harvest they stayed for 20 days. Unfortunately, they had no good harvest, as wild pigs destroyed their Hai field: only 360 kilograms of rice could be saved. Next year they will search for another place. Last year her husband had some wage labour in the cement factory but now there is no work.

Her husband is a 'soldier volunteer' in the village. They did not participate in the digging of the irrigation canal. Her aunt and grandfather (from mother's side) live in the village. With delivery other women came to help. They want to open up 2000 m<sup>2</sup> terrace rice field. She sells two skirts a week in the market and buys rice from the money. She lacks money for weaving more skirts and of a better quality. She also goes to the forest to search for bamboo shoots and earth-shrimps to make soup. She goes alone, or with a woman neighbour.

### – Vegetable land

The land to grow vegetables for home consumption, or, as a cash crop is very limited. Vegetable plots are made along the bank of Nam Xong river. But women complain that in the dry season, when the water becomes scarce, it is hard to carry the buckets with the shoulder pole to the fields to water the crop. This also limits the possibilities for a larger production for the market, and most families grow just vegetables for their home consumption. Only two to three families with sufficient land, adjacent to the river, regularly produce

vegetables, –cabbage, salad, onion, garlic, chilies–, to sell in the Vang Vieng market.

### – Division of labour

There is no strict division of labour between the sexes in agricultural and household work. The villagers stated, that by tradition, men and women assist each other in all work, except the very specific ones. Men only plough, harrow paddy fields, clear land, burn bushes in shifting cultivation, deal with bamboo work or wood in house construction and make household tools (see Annex 4.3: Activity Profile Vieng Xai).

It is interesting to note that weaving has become a good business and this has a very remarkable impact on the traditional division of labour. Formerly, weaving and all the preparations before the weaving, were completely the domain of the women, but now men and boys are also involved in the weaving process, such as helping to make looms, collecting bamboo sticks for ornament design and even rolling silk thread for shuttles.



Man rolling silk thread of shuttles

It is even more interesting that, in order to allow women more time to weave, boys and men replace women and girls in fetching water, cooking and other domestic labour. Grandparents look after grandchildren more than usual. Women said that men exclusively take care of all household activities when the family urgently needs cash. The only way to get that is to finish the weaving of a skirt so that it can be sold as quickly as possible. When we asked about this special

tendency that traditional female types of work get a more overlapping gender character, a woman stated that,

poverty pushes men and women to help each other in all activities, otherwise the family would not be able to survive.

This spontaneous expression is a very relevant one. It shows that the degree of mutual cooperation between husband and wife is very much determined by the urge of economic survival: the loss of status for males by doing women's work seems less important, which is again a positive indication of the prevailing gender relations in the village. The same wisdom is reflected in irrigation scheme construction. That is also based on self-reliance, and gender solidarity. However, when it comes to the management and decision making of the scheme, the sex barriers emerge very strongly, as we will see below.

### – Weaving

Weaving is the main occupation for women in the whole year except during the three months that they are occupied with paddy cultivation. It is also the main source of cash income for the majority of the households. Underneath the houses it was observed that some households have two, or even three to four, weaving looms, according to the number of women and girls available in the house. There are 132 weaving looms in the village (146 households) so some houses have no looms.

The women have a reputation of being excellent weavers and designers of the 'teen sine' (ornamented border) on Lao skirt and scarfs. Moreover, they have a high skill to process natural silk.

Women can earn about 700–900 kip per working day, but it is rare for women to be able to work only in weaving, as normally they are also busy with household

work, rice production, foraging, livestock or growing vegetables. Before the drought weaving was considered supplementary work of housewives, as 'leisure'. But now all families consider it the principal activity after rice production. The women teachers also weave to earn a supplementary income.

The women work on an individual basis. Most of them invest in weaving materials on their own. Because of lack of funds they can only invest little by little. That is why the returns on labour are so low. By their own estimation the initial capital should be 40,000–50,000 kip per loom. A problem is that they do not have enough money to buy silk and cotton for weaving.

### – Livestock

Cattle and buffalo raising is carried out in the traditional Lao farm system way by releasing them on the grazing fields of the Phou Gngang mountains in the rainy season, while at that time the rice fields are occupied by rice plantation. In the dry season the cattle are fetched back to graze on the fallow rice land and to fertilise the soil in this natural way. Every household owns some cattle or buffalos, at least one for the plough traction. There are some families having 40–50 cows and buffalos.

Poultry raising is less important because of frequent diseases. In 1991, an NGO project introduced a chicken raising programme on a credit basis with an investment of 600,000 kip for 40 beneficiaries (15,000 kip per family). Unfortunately, it was not successful because diseases could not be controlled. At that time the communication with Vientiane was disturbed by an 'opposition group' and the vaccine needed for vaccination could not be provided<sup>37</sup>. Many women lost their money; some had to repay the loan by selling weaving products and in some case their jewellery. That is why the farm women are not so enthusiastic about chicken raising.

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<sup>37</sup> The term 'opposition group' is a euphemism for groups of people who are against the present regime and until recently make roads and areas in the district unsafe and dangerous. The important road from Vientiane to Luang Prabang is for that reason often closed for car traffic. Foreign tourists can only reach the place by airplane.

## – Wage labour

Sometimes men and boys, besides working in the paddy fields, try to earn some income as wage labourers in the wet season at the Lao–Chinese cement factory located near the village. They can earn 1000–1500 kip per day. However, at our third stay in the village people told that the factory was finished now and did not need any casual labour any more.

Teenage school girls go to Vientiane during holidays to earn money with weaving and come back before school starts again. They can earn about 30,000 a month.

## – Domestic labour

The villagers drink water from dug wells. The women stated that the water is of good quality. But for a few households there is a shortage of drinking water in the dry season. One drinking water dug well is shared with three to five families. There are severe drinking water problems in two adjacent villages (Nyort Nam Sang village and Kouypasong village).

Firewood and saw-dust are used as cooking fuel. Only two families buy firewood, the others collect it from the forest. In six cases women have no cart and carry the firewood on their backs to the house: the other women bring firewood assisted by children with the cart.

## 4.5 WOMEN AND INCOME

The income position of the families was very much distorted at the time of our investigations because of the failing irrigation weir in 1993. The following field notes of a talk with the Lao Women's Union village leader illustrates the coping strategy of a household:

Economically they faced a disaster because of the drought and the collapse of the weir in 1993. They have 11,904 m<sup>2</sup> Na fields (8 children) and a small plot nearby for vegetables. Normally they have rice for 11 months home consumption. But now they have only six months rice. To survive they have first sold the buffalo and could buy three bags of rice. They also took a loan from the rice bank. But, if they borrow 100 kg rice they have to repay 200 kg unhusked rice. That is too much interest.

Moreover, they had to pay 20,500 kip investment for the new irrigation weir and canal in 1994 in four instalments. They paid by selling chickens, ducks and the cash earned by weaving skirts. Now they face a catastrophe. She can sell only a little bit of salad from her vegetable garden the rest she needs for home consumption. Her husband wanted to borrow more rice from the rice bank, but the bank refused. Then the husband said: my wife works for the LWU, if you refuse I will not allow her to do the work any longer voluntarily. Then they agreed. But the debts have to be repaid. Their income now is partly from chicken selling and vegetable gardening, but their main income is from weaving. She and her daughter of 16 years can make two to three skirts a week. She sells them for 7000 kip each and has 3500 kip material costs (50–50%). One kilo cotton material costs 15,000 kip. Their income from weaving is around 30,000 to 40,000 kip per month but that means continuous work at the loom. Sometimes a foreign lady (middle woman) comes and buys the skirts, but not always. She lacks money to invest in buying silk. If she could she would be able to earn more as the work is the same, but it can be sold for a higher price.

These field notes indicate that the main share of the investment in irrigation comes from the cash earned by the women. Appropriation by the husband of money earned by his wife is unknown: even daughters possess a position of financial autonomy, as the following event reveals,

We buy the two skirts that are ready this week and observe an interesting event regarding financial autonomy of daughters. We give the money to the mother of the house, assuming that she is the producer of the skirts but she calls her daughter of 16 and hands over the money to her with the argument, 'that she has worked for it and therefore should get the rewards.' The husband tells us that he has to ask pocket money from his daughter to buy cigarettes. The daughter will also give money to her mother for the household expenses.

The most important expenditure is for rice, food, medicines, clothes, school books and stationery for the children.

In the following rough income overview we did not monetize the rice, forest products and fish which are obtained as subsistence products. There are also seasonal fluctuations in the household expenses. During school vacations, the household expenditure is less, as the boys go out for fishing and the girls look after the provision of more food to meet the daily needs. The consequence of women spending more time weaving is that they need more cash to buy food as they can forage less food from the forest and catch fewer fish.

The income overview of the 20 families interviewed indicates that this year nobody could sell rice, but it is guessed that in the whole village a few families could and made a small profit. Nobody earns money by selling forest products; they are only collected for home consumption. In 14 households the most regular income originates from weaving, on average 20,000 to 30,000 kip per month. The selling of poultry and livestock is a source of income for 11 families. Three families sell regularly vegetables to Vang Vieng market to the total amount of 60 – 70,000 kip per season. The following overview shows a fluctuation of annual income between households, ranging from 30,000 kip to 770,000 kip.

**Table 4.3 Overview of annual income according to different income sources**

HH no.	Selling Vegetables	Selling animals (chicken)	Selling skirts per month	Wage labour rel.	Money sent by	Loans	Total Yearly
1	-	-	15,000	-	-	-	180,000
2	-	-	50,000	-	-	-	600,000
3	-No data on income	-	-	-	-	-	-
4	48,000	-	30,000	-	-	-	408,000
5	2000 p.w.	27,000 per 6 months	-	1000	-	-	483,000
6	-No data on income	-	-	-	-	-	-
7	2000 p.w.	8000 y	-	4000 y	-	-	108,000
8	120,000 p.y.	-	5,000	60,000	-	-	180,000
9		80,000	27,000	-	-	-	404,000
10		20,000	50,000 p/y	-	700,000	-	770,000
11	60,000 p.y.	15,000	-	4000 y		50,000	129,000
12	-	-	30,000	-	-	-	30,000
13	30,000 p.y.	-	20,000	-	-	-	50,000
14	30,000 p.y.	50,000	20,000	-	370,000	-	470,000
15	30,000	-	40,000	120,000	-	-	630,000
16	3000-6000 p.w.	-	-	40,000	-	-	256,000
17	-	-	50,000	-	-	-	600,000
18	-	-	8,750	-	-	50,000	105,000
19	-	-	50,000	-	-	-	600,000
20	-	-	30,000	-	-	-	360,000

Source: Information of the 20 interviewed women. No standardization on a monthly or weekly basis was possible in view of the irregular and seasonal character of the income sources. The amount in the column 'total yearly' is estimated by the respondents. Loans are not estimated as income but money sent from relatives is regarded as income.

The main finding is that of the 18 households of whom we have income data, 14 have regular monthly cash income from weaving, nine from vegetable selling but the rewards are much less. Six households sell chickens and other animals. Wage labour earnings are very few. One family receives much money from relatives in America. Strengthening of the weaving income generation looks highly rewarding.

#### **4.6 WOMEN AND WATER USERS ORGANISATION**

The community has a long tradition of voluntary communal work, and inherited skills in local irrigation techniques and water management. This holds true as much for the men as for the women. However, as we found everywhere, women are not participating in the recently established Water Users Organisation in the village.

Also in Vieng Xai, despite the patrilinear framework, women have a high status, gender relations are smooth and flexible, notions of sex segregation hardly exist, and women play a crucial role in the investment in irrigation, yet, they are not represented in the three Water Users Groups and formal Water Users Committee Board. There is a strict demarcation line in perception and actual behaviour that Water Users Groups and the Water Users Committee are the male domain, and the Lao Women's Union is for women. In this matter women are perceived as the followers and helpers of men.

The Water Users Group (WUG) was established after a training by an NGO on the subject in view of the plans of the new government supported weir construction. The WUG consists of three groups; each group has its own committee. The heads of the groups form the daily board of the WUG. They have drawn up their own regulations from the beginning of the new weir project. Recently, the committee decided to submit the regulations to the District Irrigation office approval. The board, or committee, organises general meetings with participation of all members once a year before the yearly crop season, or more often, depending on the situation of the scheme.

The minutes of the last meeting of the Water Users Committee show that some women attend the meeting. That happens when the men are not available, which is quite often, or if she is the head of the household. If a woman attends the meeting it is expected that when she comes back home she should inform her husband. The other way round is not so self-evident.

However, in our study we found that all interviewed women are well aware of the activities concerning the scheme. They assume that irrigation is the main solution for solving the problem of rice shortage on which the life of the whole family depends.

A discussion with LWU members (75 total) indicated that they organise a monthly meeting. They discuss about problems in agriculture and the digging and construction of the dam and the canal. They also have an old women's group (over 55). They organise relevant matters such as cooking food for the volunteers working on the construction of the irrigation canals and give service to 'society'. However, they do not discuss that women should also participate in the Water Users Groups and Committee. This is the more urgent in view of the planned huge, capital-, and labour intensive irrigation scheme that will start in a few years.

#### **4.7. CONSTRAINS AND DREAMS**

During separate discussions with women and men they identified the following problems: the irrigation scheme is not secure and there is a shortage of rice while the cultivable land is limited. Animal diseases, in particular in chicken raising, are a problem. Women lack capital for investment in weaving. There is a need for a family planning programme.

Both groups, men and women, expressed the same solution, namely that the key to solve all problems is a steady increase of the household income. The only source with a development potential up till now is the weaving. Therefore, the availability of funds for investment in weaving is very important.

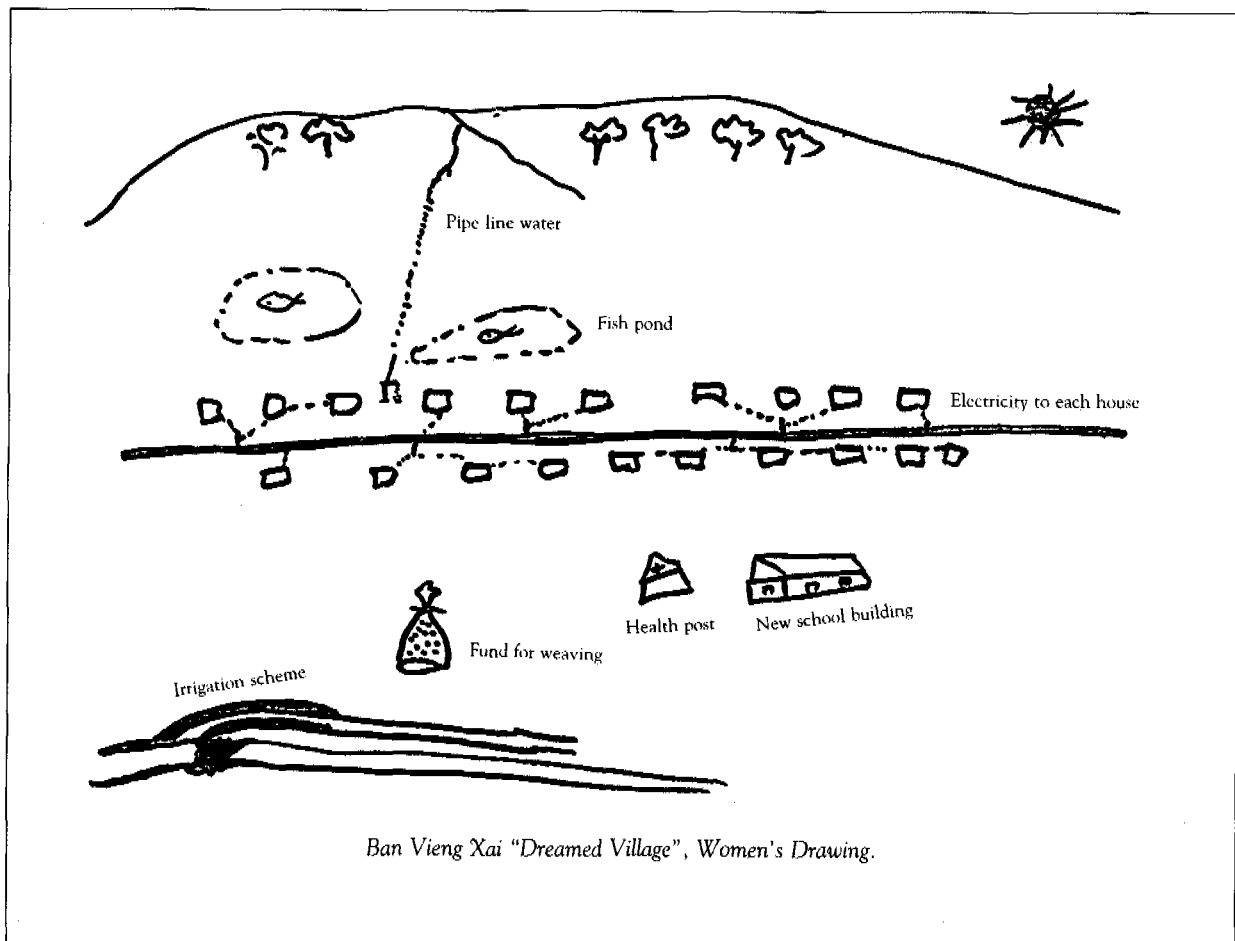
As an NGO has a successful weaving programme in the District the leader of the LWU of Vieng Xai has

been taken to Ban Phonsung village to learn from their experience. The NGO gave 105,000 kip in 1993, which was divided among 18 members (max. 6000 kip). The cotton was given and the design (table cloth with horses and letters) sells for 6000 kip. Two persons received training in accounting and bookkeeping. End 1993, they had 36 members and now already 54. The income since the beginning is 3,746,000 kip for all the members. Income per household from weaving is 400,000 kip per year. The LWU representatives sell products twice a month in Vientiane. 10% is for the LWU (for bus fare, food). The NGO informed them on the marketing possibilities in Vientiane. Sometimes they make their own design. The material for the warp is distributed, but the material for the woof is bought by the women themselves.

They have an irrigation scheme and a Water Users Committee. There are no women in the Water

Users Committee although it is clear that the women have invested a lot of money in the irrigation scheme from their earnings. The chairman of the Water Users Committee states that there are no women in the Committee for two reasons: tradition, and the low level of education of women. There is a Committee of Village Development in which women participate.

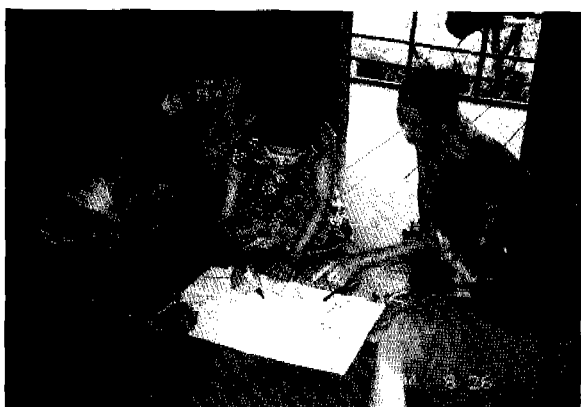
As part of our participatory study approach we asked a women's group and a men's group to draw on a large piece of paper how they wished their village would develop in future: what would their 'dream village' look like? It was very revealing that the women's dream and the men's dream were quite different. The women's dream was to get clean water from the Phou Gngang mountain, electricity, a village health post, new buildings for the primary school, and cement in both sides of the main canal at the head end, which is about 40 m long.





The men's dream was to construct a big Buddhist pagoda in the village and to have cement in the irrigation canal.

All these items require money from the whole community. Their expectations are based on the weaving by women only.



*Drawing dream maps in Vieng Xai*

## 4.8 WORKSHOP AND RECOMMENDATIONS

The experience of conducting our gender studies and the comprehensive findings on the roles, skills, duties, and problems in the village were discussed at a workshop with staff of the provincial and district irrigation office. The staff of the district and village Lao Women's Unit and various other authorities of the District, and representatives of the village also participated. During discussions many specific points<sup>38</sup> were raised and recommended but general policy and institutional issues were also discussed related to our main question, 'how to strengthen the position of women in irrigation development?'. These general aspects identified in our case studies and workshops will be analysed in the last chapter.

The above shows that in this village, women are an enormous resource to raise income and to save for investment in irrigation works. As women feel very strongly that they are responsible for the provision of food for the family, they are very aware that the construction of a solid dam is the way to ensure rice security for the family. If this can be achieved, the hard work of the women in weaving can be reduced, as the necessity to earn cash to buy rice will become less. For the time being credit and revolving funds are urgently needed to raise the surplus for investment in the 'newly planned' government supported community managed irrigation scheme, in which water fees have to be paid.

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<sup>38</sup> Specific topics demanded in the workshops were, for instance:

\* A small fund is necessary to complete the plastering of the last meters of cement in the main irrigation canal in the Vieng Xai scheme.

\* Women are urgently in need of a revolving fund for the existing weaving group.

The two points have been realised.

## 5. VILLAGE BAN DONGDAN: HMONG WOMEN AND THE MEANING OF HAI

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*We can appoint a woman to do gender studies, but how can she carry out her work when the budget is not available to do her work, e.g. gasoline to go to the villages?'*

### 5.1 VILLAGE PROFILE

Dong Dan village is located in Xieng Khuang Province, Khoun District, at a distance of 30 kilometer south of Phonsavanh, the capital of the province. The village lies in the valley on the road leading to Khoun District. It is surrounded by paddy fields and bordered by beautiful mountains. The water sources are two small streams coming from higher areas. The Hmong identity of the villagers is immediately visible in daily life by the appearance of the women: they wear the characteristic blue (sometimes green) scarfs around their head and the blue skirts with coloured lines. They also have a particular style of carrying their babies on their backs together with the bamboo basket. Men are mostly dressed in modern western style clothing.

Although the small village has no prominent irrigation history we want to elucidate the daily life and the problems of the women in particular, as we think these problems are also significant for other Hmong groups. In this way we can reveal the special need for strengthening the Hmong women, as they face all kinds of specific problems as a result of their history, social status in the family, and the changes in their economic system and income sources. Irrigation can only play a moderate role in the wider context of an integrated rural development approach, but how small this role may be, it will be of vital importance to assist women in their struggle for survival.

The resettling of Hmong groups often creates immense problems of finding a sustainable livelihood system for them<sup>39</sup>. This can be illustrated by the situ-

ation in our small village. The main problem is that the rice land they have cultivated since 1973 is reclaimed by the owner of the land living there before that date. The court has acknowledged the land rights of the former land owners and suggested to share the land. However, the total size of the plot is 10.5 ha for 9 families. When this Na land has to be divided, the subsistence base becomes very thin, and Hai cultivation more necessary than before to supplement rice and food production. However, the Government policy is to stop Hai production with the argument that it ruins the ecological system.

The history of the village is characterised by a settlement pattern in which successive groups came and went during the French time, as well as during the war. Long ago the village seemed to be a local Lao Lum village. Vietnamese immigrants lived for a short time in the village but left during the war period. The actual village was established again in 1975 by Hmong people coming from different places.

There are 60 households in the village, of which the northern quarter of the village was selected for our study. The community consists of nine Hmong households settled in a separate quarter, about 150 metres from the centre of the village. The houses are settled near to each other, as the area of land is limited. All are built in Hmong style: the floor is on the ground and walls are of bamboo or wood without window, the roofs are thatched. The fire place for cooking is inside the house: above the fire hangs a basket from the ceiling in which the seeds for the next year are preserved in the smoke. The poultry and pig pens are in the yard

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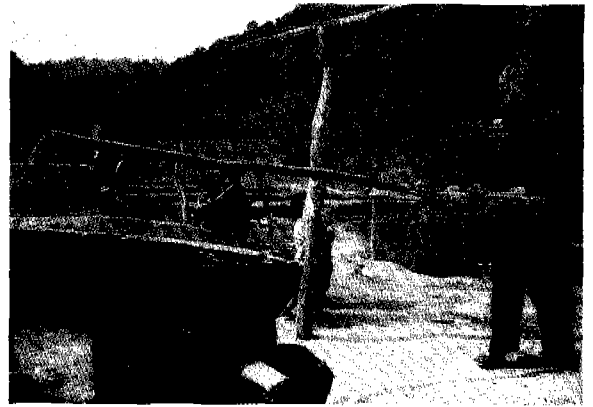
<sup>39</sup> See the article of Gary Y Lee for the minority policies and the Hmong in Martin Stuart-Fox (1982), *Contemporary Laos: Studies in the Politics and Society of the Lao People's Democratic Republic* (New York: St. Martin's Press).

around the houses, which are sometimes separated by a fence. There is a common cattle and buffalo shelter outside the village. In front of the houses there are peach and persia trees. Small plots of vegetable gardens with also some medicinal plants are scattered around the houses.

There is a primary school located at some distance in the neighbouring village of Ban Vieng Xai. There are four classes and 122 pupils: 71 boys and 51 girls. We visited the school, which is located in the bush. Remains of a bomb are the drum of the school. In the classrooms there is nothing, only rough wooden benches and old blackboards. There is one new building with tin sheets. The girl in the soft drink shop tells us that each household contributed 6000 kip and gave free labour to improve the school. There are four teachers, but all are Lao Lum and cannot speak the Hmong language. They come from neighbouring villages. The children can continue their schooling in class five at the next village. Most children quit school after the third or fourth class, especially girls. Poverty and the unfavourable study climate are the reasons for the drop-out. Some of the families are former government officials or are ex-soldiers/nurses. They have more relations with urban areas and some boys live with relatives and study in town.

There are two dug wells for nine families and the water is available the whole year. They only drink boiled water and cooked food. Small children look dirty and have crusts on their face from snotty noses, but teenage girls look clean in their white blouses, black skirts and healthy red apple cheeks and bright eyes. Health facilities are not available, there is no drug store, and only one ex-nurse: the Lao Women Union village leader is a retired army nurse serving in the National Army during the war. Now she does not undertake medical activities, except when people ask her to help she gives free injections. She wants to set up a drug store, but the unforeseen death of her husband cancelled her plan as she has to spend all the saved money for the funeral ceremony.

There is a communal hand maize grinder with large grinding stones and in the main village there are some small barter shops.



*Hmong woman and traditional corn grinder*

Only carts and bicycles are available to transport people and cargo. Women walk very long distances to the market with heavy weights in the typical Hmong baskets and the baby in the Pha Chia or on top of the basket.

The number of villagers is 423 of which 220 of which are women (52%). The population is ethnically from Lao Sung origin, of mainly the Hmong, Meo Khao sub-group. Most of them are from two clans (different ancestors), the so-called 'Sing Vang' and 'Sing Song'. Inter-marriage with somebody having the same surname (clan name) is forbidden.

The Lao Sung are predominantly animist and believe in Phi, meaning ghosts or spirits, or better to be described as superhuman forces invisible to the human eye. They believe in the ancestors' spirit (*Phi Huen*), which can also be the guardian spirit of the house. In the houses we visited we found in the middle of the house the place where the house spirit is supposed to stay. It could be gold paper with feathers or some ornament with figures like abstract human beings. They give food to the image of the Phi Huen hoping to get good rice and happiness. The sky ghosts (*Phi Fah*) can also be benevolent. During visits we saw on top of one house a pole on the roof with a basket in top. In it was a head of a slaughtered pig as a sacrifice to please the sky spirit, as in the small house a child had become ill. They hope that Phi Fah will look well after their child.

## 5.2. IRRIGATION HISTORY

In front of some houses we saw an irrigation system with fish pond. The pig stable is constructed above the pond. The droppings are used to feed the fish. Ducks swim in the pond. The water is diverted to a small reservoir to a lower level and streams to the adjacent rice field. In the main village there are three main streams. There are culverts under the road to divert the water to the Na fields at the other side. Each house seems to be responsible for the maintenance of the streams.

In the 9 households of our investigations the main complaint is that the women need water in the dry season to irrigate the vegetables. Higher there is a small stream which could be used to construct a small irrigation system which would provide enough water for a dry season crop. The women want to have this irrigation very much to grow vegetables for home consumption and to sell at the market. They gave two men the responsibility to set up a plan, and to contact the District Irrigation Office. But, one man died, and the second left the village. Now nobody can undertake this work, and therefore this plan was dropped. A survey was made in 1989 by the District Irrigation Office which shows that technically it is not possible to construct a reservoir, as there is no space, and not enough water. Ground water use can be an alternative, and this was discussed with the officers at the provincial irrigation office.

## 5.3 POSITION OF WOMEN

### – Residence pattern

The Hmong are patrilocal in their residence pattern, but only six women stated that they live in their husband's (parents') house, and three in their mother's (parents') house. Five women stated they have their own mothers, sisters and other female relatives around. Similar as in Vieng Xai village, patrilocality is not any longer an absolute must for the Hmong men to keep up their reputation as 'head of the household'. In the past patrilocal behaviour was strong and can be illustrated by the custom that women were not allowed to die in their husband's house, because it

never became **their** house. Women were moved outside when it was expected that they would expire soon. Only after their extinction could they be moved inside the house again. The residence pattern indicates that the notorious patriarchal reputation of Hmong men is not so strong in our study village. The average number of years of residence in the village is almost nine, with a variation of 3 to 19 years.

### – Age, size and composition of the family

The average age of the women in our sample is 42, while that of the men is 46. There are two mothers of 35 and two younger ones in our sample, respectively 27 and 28 years of age.

Four of the nine families consist of joint families: old parents, the couple and their children. The total number of people in our small sample is 74: twelve wives, six husbands, 31 daughters, 24 sons, two grandmothers of, as they say, 92 and 80 years of age, which may be true looking at their appearance, and two grandfathers of 75 and 55.



*Hmong grand-mother with grand-daughter*

The family size is about eight people. In three houses the husband had died and there are two cases of polygyny with respectively two and three wives. Polygyny is an accepted marriage structure among Hmong ethnic groups. We estimated that only 10 to 15 per cent practice polygyny. No doubt this type of marriage has to do with the extremely difficult situation of the high altitudes at which they lived in the past, and the slash-and-burn cultivation they had to practice there. It also has to do with the necessity

to have many children. In case the first wife proved to be infertile, a second wife was married. But, the internalisation of gender relations of the women is also important. The first wife of the polygynous household told us that, 'she had no objection that her husband married more wives.' She wanted a woman to help her and therefore she saved for a bride-price, so she could 'afford' a second wife.

The household size of the nine families is as follows: one household of three members (grandfather, daughter and grandson), two households of five members, two with nine members, three with 10 and one with 16 members. The last family includes three wives<sup>40</sup>.

#### **– Marriage, bride-price and deliveries**

Although nowadays wedding arrangements are made with mutual consent of all parties, it happened in the past that a girl was forced to marry a boy which she did not love or like. That was possible because by Hmong tradition the opinion of the girl was not asked before the wedding. Traditionally the boy must kidnap the girl and bring her to his house. In case of non-consent of the girl, the boy forced her to stay. In this situation the "traditional" scene became a real "violation". But usually there is an element of knowing, and playing a game on the part of the girl. A young couple told us that they fell in love and made an appointment when he would come to kidnap her. As it is known that the bride-price can be increased if the girl makes a lot of trouble in showing that she does not like the boy, many girls play the game for this reason. The day after the kidnapping the parents of the boy go to ask the hand of the girl from her parents.

The average ages of marriage of the 12 women in the study ranged from 17 to 23 years.

In six cases the bride-price is given in silver. In three cases pigs, rice, chicken, a buffalo, pillows, blankets and a bed were given by the parents to their daughter as marriage presents. The amount depends on the financial situation of the boy and also the rank of the wife. What is very peculiar in the Hmong community and which shows the patriarchal gender relations, is that the bride gets a long piece of white cloth from her parents as a wedding gift: it is her death cloth. The symbolic meaning is that she should die in her husband's house and can never return to her parents' house. Our observation is that this practice is still the custom. The second and third wife receive less bride-price. Our study covered two cases of polygamy where the dowry varied from 9 "khanh" for the first wife to 4 "khanh" for the third one<sup>41</sup>. Women also have to show their love in case their husband dies: they have to put an old skirt under his head and a new one on his face. This is a substantial sacrifice for poor Hmong women to miss two skirts.

All women give birth at home, except in one case when a sick pregnant woman had medical care in the District Hospital and delivered the baby there. In six houses the husband helped during the delivery, in one case together with the mother of the husband. The village nurse helped one woman and in one case where there was no husband the mother assisted. Hmongs have their own practices and behaviour especially concerning gender discrimination. The following field notes are an illustration:

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<sup>40</sup> *The composition of the family with three wives is:  
1st wife, 60 years, 8 children, 4 died (3 girls and one boy).  
2nd wife, 50 years, 7 children, 3 died, left 4 sons.  
3rd wife, 25 years, two children, one daughter, one son.*

<sup>41</sup> *Khanh is a unit of weight especially used for silver which is more than 300 grams and worth 60,000 kip.*

We go to the house of Som. One baby was born dead when she was staying high in the mountains in the Hai field. Her mother-in-law helped her and cut the cord. She was there to weed the opium fields. Her husband removed the placenta. In case of a boy he buries it under the central beam of the house, the placenta of a girl baby is buried under the legs of the bed. The son should inherit the house and deal with the ancestor phi so his placenta (also of still-born children) is buried in a central place. She likes to have two sons and two daughters. Then she will take traditional herbs to become infertile for ever. It seemed that one of the woman has found the traditional infertility herb (named Saha) in the forest and has planted it in her garden. She took it once, seven years ago, and since then has become infertile. She cannot tell other women about the herb, as the spirits of children want to be born. "It is a sin to tell other women. I will be punished." She took the herb as she was very poor, almost blind and pregnant again. She continues that she had given the herb to three other women. The condition was that she would get 20,000 kip if no children were born in three years. That happened. The herbs should be mixed with the wood of the Hmong stair.

After delivery the women stated that they take some rest, normally not longer than one week. Afterwards, the usual activities around the house or in many cases, even going to work in the far away Hai fields are again undertaken. But in the first month after childbirth the nutrition for the woman is special. Every day she has to eat chicken meat and soup with special medicinal herbs for recovery and for stimulation of lactation. By tradition it is the duty of the husband to provide all this food for his wife. People say that this care of the husband is very important in the life of the couple: it is the proof of love from the husband to his wife. We even found that a young husband had lost the opportunity to earn a lot of money with woodcutting,

as it was his duty to make special food for his wife who had just delivered. This strengthens the physical capability of Hmong women and good health for the new-born baby unless she is attacked by disease. After one month of 'privilege' in nutrition, women return to the previous situation of eating rice mostly with vegetables, meat or occasionally eggs.

The average number of children is seven to eight per woman (70 children per nine women). 26 per cent of the children died from acute respiratory infection, malaria, or diarrhoea, and one child died in the war.

When talking about family planning, the women were not interested in 'birth spacing' methods. They stated,

Let it be up to God. If he wants to give life to anybody, let them be born. And in practice it is good too, to have more children. They will help us when grown up, and take care of us when we are old.

Traditionally, women have no right to inherit any property from their parents, except her clothes including one beautiful traditional suit, which has been made by herself, and the silver jewellery worn on the wedding day. All the property usually money in silver, house are for men only. If there is no son the daughter is lucky to receive the heritage. But the parents consider it a major failure to have no boy in the family.

In the quarter where the survey was conducted there are only two women out of twelve who could read and write. One is the LWU village leader. She just lost her husband who had died suddenly some months ago. She stated that she faced difficulties to go to the LWU meeting or workshop in town because at home there were only children and an old father. She complained that she wanted to quit the assignment but there was nobody to replace her, because other women are illiterate. There was only one woman who would be able to accomplish the duty but she was too busy with young children. While the father was alive the son studied in Vientiane in the last class of high school. After his death the boy decided to drop out from school and to come back to help his mother at home, in particular in

farming.

On the question about the decision 'to whom they will give higher education when they have to choose between their daughters or sons', women gave 100 per cent preference for the boys, as according to them the sons will be responsible for the future family and only the boys will inherit the family name.

## 5.4 WOMEN'S ECONOMIC ROLES

### – Land, history

As this ethnic group had no permanent habitation and settled down during the war in 1973, they face a serious problem regarding their claim on ownership of the land they have tilled for almost 20 years. At present with the promulgation of ownership rights, or land rights, former owners, who fled mostly to Vientiane during the war (after 1963) reclaim the land they left at that time. In the case of our village, the court proclaimed the former owner's claim valid and ordered that the land now occupied by the nine Hmong households be returned to the legal owner.

We visited the main village and had a talk with the former Lao Lum owner of the land. The Government policy is that he has to share his land. He gave one hectare to the Hmongs and has only 0.4 ha left for himself. If he wants more land back he has to pay 50 kip per m<sup>2</sup>. He came back in 1975 and shared with the Hmong who had occupied his land on a 50–50% basis. From 1975 until 1979 there was a cooperative in this area and they had to work together. They had to divide the crop. It was not successful, 'nobody cared about the crop. The buffalo was eating rice in the paddy field but nobody chased the animal away'. After the abolishment of the cooperative the policy was to move the Hmongs to the new settlement proposed by the provincial administration located in Thathom area. It is an irrigation project area set up especially for landless Highland people. But the Hmongs do not want to move. They state that the land now used for paddy fields was allotted to them by the local administration when they arrived in 1973. At that time it was not common to give individual land ownership. They received the usufruct rights but having tilled the land for so long,

some are of the opinion that the land is theirs. Of the nine families, five replied that the land was in the husband's or son's name, one widow said it was registered in her name, one in her mother's name, one thought it was government land and one woman replied that it was nobody's land.

The land transaction as it is arranged now has decreased the rice output for the families and has made the necessity to earn more cash to buy rice more urgent. The following case illustrates the problems very well:

The Sing family has just bought a lowland rice field of 4000 m<sup>2</sup> at two hours walking distance from their village. They also possess a Hai field of 4000 m<sup>2</sup> near by. They had to pay 500,000 kip for the land. They are forced to do that as they had to return 4000 m<sup>2</sup> paddy land in the village to the former owner. The owner has contributed 200,000 kip as a kind of compensation, but they had to pay 300,000 kip. They sold one cow, one buffalo and some rice. Other cash income they got mainly from vegetable selling from their Hai field: salads and beans, pumpkin and sesame. Twice a week she goes to the market and sells there for 1000 kip. She carries the vegetables and the baby on her back. The market is in Lathuang, a small village near by, one hour walking. Now and then they sell two to three chickens, but the chickens often die of diseases. This is not a good place. They have one buffalo and one cow left. Previously they had a harvest of 1.5 tonnes per hectare and that was sufficient to eat rice the whole year. Now they have only 800 kg unhusked rice which will be reduced after milling to 400 kg rice. That is sufficient for 6 months for the family (2 parents, 7 children). Later their daughter comes from school. She wears a white blouse and a black Lao skirt and has a round, shining, healthy face (even a stainless steel belt). The mother also collects banana leaves and wild fruits and sells that at the market. She gets little, little

income from that. Her husband does not go to the market as men are ashamed to go to the market. They are shy. The husband does not know how to find wage labour and to pay the costs for the land.

This situation, which is illustrative for other families too, makes it clear that it is urgent to initiate income generating activities, or even better an integrated rural development programme in the village to increase the cash income of the families.

### - The female farming system

The main occupation of the villagers is farming, except one man who is an army officer. The main labour force for agriculture consists of 23 people, 7 men and 16 women. Secondary labour of children aged from 7-14 years old is composed of 7 boys and 11 girls.

For subsistence the villagers practice rice cultivation in paddy fields and slash-and-burn in the Hai fields, all at the same time.

The following table shows the size of the land holdings of Na and Hai field in our small sample. In the second household are only three people, and they do not possess any Na field. In the fifth family with ten people in the family, cultivates one hectare of upland.

**Table 5.1. Size of land holding of nine Hmong households (in m<sup>2</sup>)**

HH	Size of land holding lowland	Size of land holding upland
1.	5000	5000
2.	-	3000
3.	9000	1500
4.	7000	5300
5.	800	10,000
6.	10,000	6000
7.	4000	1000
8.	5000	a little
9.	4000	8000

Source: Interviews with nine households.

The table shows that the land size for lowland fields is 0.5 ha-1 ha and for upland from 'a little' up to 1 ha.

The paddy fields are only rainfed. Usually that is enough and additional irrigation is not necessary. However, it happens that in some years the villagers face floods from the stream when there is too much rain. The villagers use buffaloes for plough traction. Some households have to rent buffaloes from other farmers, which are almost always outsiders from the village.

In the past rice production for household consumption was enough for eight to ten months, but with the new division of the land it has become much less. They compensate the shortage by shifting cultivation, which is rotated in the same place in three to four years. In the Hai, farmers intercrop vegetables, pumpkin, taro, gourd, egg-plant, chili, etc. These areas are located far from the village, usually more than ten kilometer. Apart from the rotated rice Hai plot, most families have semi-permanent land in the uplands for maize and permanent Hai fields for secondary crops such as cassava, banana etc. Thus every family has at least two to three Hai plots.

In the past the people also grew opium on high land. But they stated that they stopped cultivation of cash crop to comply with the Government policy to discourage shifting and opium cultivation. One woman has a very small opium garden of about 150 m<sup>2</sup> in the yard in front of the house, and she takes care of it like her adjacent vegetable garden. Almost every day she carries water from the stream to the opium garden. She said the yield is for consumption of the men and medicine only. It should be realised that the women of the Hmong are the sellers and traders of opium, and the ban on opium hits them particularly hard as an enormous source of income is taken away and independence for them is drastically reduced. This justifies extra efforts to look for alternatives to earn cash, in particular for Hmong women who are economically more vulnerable.

When talking about agricultural development the women said that they are not lazy to work or to plant, but the problem is that they have no idea what



to plant for selling. The village LWU suggested cabbage and beans. However, they need irrigation water for that, which is not available. She showed us the place which could be used for gardening.

### – Division of labour

Hmong women work extremely hard and their husbands have a reputation of taking more leisure time. Women are known as very laborious in Hai care and animal feeding, especially chicken and pigs. Women are responsible for the Hai cultivation, usually not only one plot for rice but two or three other plots as well. Moreover, they do most of the household work. In case of polygyny each wife has her own plot for fodder production, which is used as a separate source for cash income of each woman. Men specifically undertake the 'heavier' work, e.g. clearing the land, which involves cutting big trees and burning the tree trunks. The remainder is the responsibility of the women, in particular the weeding: at least two to three times per season (see Annex 5.1 Activity profile).

For the vegetables gardening, around or not too far from the house, the women are fully responsible. In rice cultivation they have adopted the Lao Lum way of division of labour. Men work when they have time, and hunt in the forest with long guns, in the past for wild animals, but now for birds, squirrels and other animals for the daily meal.

Finally, women are responsible for domestic labour. We observed many mothers and daughters coming out of the forest with heavy firewood loads in the baskets on their backs. It is very rare to see a Hmong man carrying a basket with firewood on his back.

In brief, women have many occupations in daily life. This might be one reason why women accept polygyny, or even take the initiative themselves to find a second wife and pay the dowry for the husband. This happened in Dong Dan in the two cases we came across. This is the only way to alleviate the workload because the younger wife should share the hard work, and go to the Hai every day while the first one takes more care of the household work. The second reason may be that women in the patrilocal context try to have female



*Girl coming home with firewood*

relatives around for emotional support. Therefore two to three wives living in the same house usually do not cause serious disputes or jealousy, although the husband may have to "administer justice" in an equal way, as one of our woman respondents stated. The social structure may offer men the position of authority, but the women's socio-economic power often counteracts socially sanctioned male domination. This power base springs from a collective spirit among women and from the options available for them for economic autonomy, both based on women's identity. The case study shows that being a woman in Laos, also in a patriarchal context, implies a potential for economic autonomy and self-reliance, as crucial economic sectors and activities are monopolised by women sanctioned by the division of labour. We found that, despite the dominance of patriarchal relations, the social atmosphere was eased by women's sense of solidarity.

Nevertheless, a Lao Women's representa-

tive in Vientiane Province is of the opinion that suicide among Hmong women occurs more frequently than in other communities. In Na Mon village there are 113 households of which nine households have two wives and one household has three women. In spring 1994 the following sad event happened: the husband (who was mostly sleeping during daytime) of two wives had scolded his younger one as he found out that her 'Hai field was not yet ready'. She told that she was breast feeding the baby and that it was difficult for her to do the work. Anyhow she was so upset that she took poison (Nguan, a wild plant similar to curare) and killed herself. The older wife divorced the husband out of solidarity with the second wife and raised her baby. She did not want to be married with a man treating one of his wives so badly.

#### – Livestock

Breeding of animals is practised in every house and in particular the appearance of the black pigs draws the attention of the visitor. They look pitiful with the

wooden triangles around their necks to prevent their entering the fences of the vegetable gardens and eating the salad. Moreover, the people keep buffaloes, and try to raise chicken. The villagers feed their poultry and pigs with the Hai products, particularly maize and cassava in pounded form. In the village yard there is a large common rock pounding mill which people have used since generations. For cattle they have a common shelter outside the settlement where they fetch the manure for the rice field.

Wage labour is not available at all in the area. All the villagers concentrate only on their own farming and on livestock raising.

#### – Handicrafts

Women know the art of Hmong embroidery and tailoring but use it only for themselves and their family. They are not so famous in design and rich embroideries as the Meo Lai sub-ethnic group. Women said it will not be difficult for them to make the same, if the model can be provided to them. The main problem is that they do not know how to sell their products and get access to the market. Therefore they only produce for their own use. Men undertake some bamboo work and there is a blacksmith also for local use.

**Table 5.2. Annual incomes in Dong Dan, Xieng Khouang Province (in kip)**

HH no.	Agriculture	Livestock	Forest	Relatives	Other	Total
1	10,000	200,000	550,000	210,000	–	970,000
2	50,000	40,000	–	–	–	90,000
3	100,000	50,000	20,000	210,000	–	370,000
4	100,000	150,000	20,000	–	100,000	370,000
5	50,000	90,000	–	–	–	140,000
6	20,000	–	–	–	480,000	500,000
7	–	150,000	–	–	–	150,000
8	–	–	–	–	–	–
9	–	40,000	5,000	–	–	45,000

## 5.5. WOMEN AND INCOME

As the following table shows, the main income comes from selling vegetables, Hai produce (pumpkin, cassava, maize, gourd, etc.) and livestock (pigs). The enormous income from selling forest products in household no. 1 is an incidental case in which four families joined and cut some very precious tropical trees (Mai Ketsana), which were sold in the market. They received one million kip for it and shared the money. Now it is absolutely prohibited to cut these trees. Some additional income is obtained from selling forest products such as bamboo shoots, banana leaves, and herbs for making tea.

Two families receive money from relatives in the United States (ranging from USD 100 to USD 500 per year).

As family 8 has no income at all we talked with the nice young couple. Their situation reflects very well the problems of the younger generation of Hmong people.

He and she are both 32 years of age. They had five children but two died: one at birth and one after one month. She was kidnapped but they were in love and she knew it, so she waited outside to be kidnapped. She lived in a village one kilometer from this place. Next day his parents went to her parents' house to ask her hand and to settle the dowry. His parents gave three khan silver and a pig. From her mother she got the traditional costume, silver jewellery belonging to the costume and white cloth for when she dies. She has to make a white pleated skirt from that. They keep everything in a rattan suitcase. Later she got one cow, but the cow died. They have 5000 m<sup>2</sup> paddy land and a little Hai. So they have enough rice and some chili but that is all. They have no meat and cannot buy anything, as they have no cash at all. They cannot sell anything, so there is no income. Their chickens died. They sold the last khan of silver of the dowry to have cash and

to buy a bicycle. However, they will never sell the silver jewellery belonging to her folk costume. They do not have any idea how to improve their lives. When they have to stop Hai cultivation it will be worse. Only in emergency cases do they sell rice. She knows how to sew, but has no time to do it as she has to go to the Hai field. DAFSO told them to grow banana trees and sugar cane in a more permanent Hai, but they were not told how to do it. She wants to raise chicken again but then they have to take the risk of losing money.

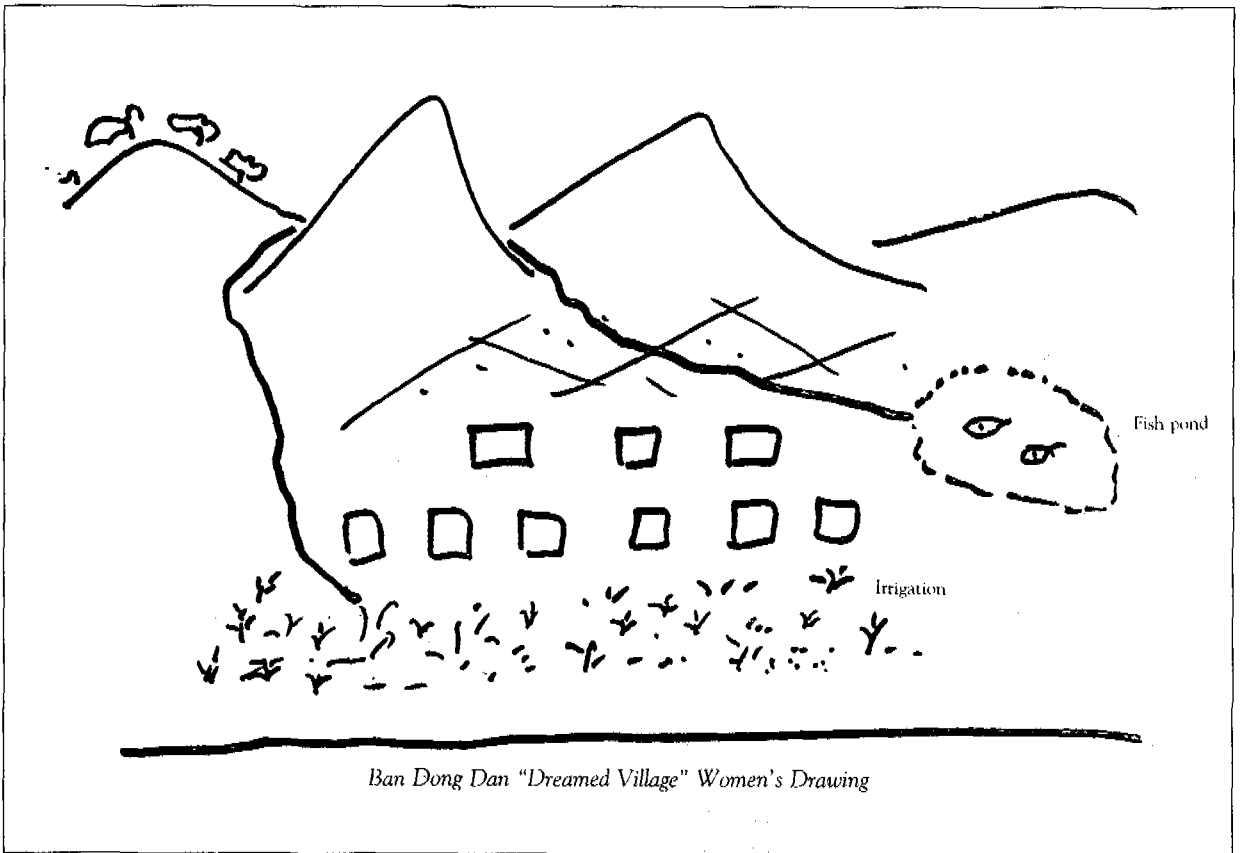
This case also shows that women nowadays share in decision making in the household economy. Most women keep the household money. In case of polygyny the husband and the first wife have to give permission to the second and third wife to spend money for her personal use (mostly clothes) from her Hai income. But it has never happened that they refused.

## 5.6. PROBLEMS AND RECOMMENDATIONS

Women mentioned as their problems a lack of land for subsistence production; low income, as there are very limited income generation opportunities; lack of irrigation; low education, lack of skills in marketing; animal diseases, in particular related to chicken raising.

It has to be feared that their socio-economic position can only deteriorate as the Government policy is pursued to stop the opium production, slash-and-burn cultivation in Hai fields and wood cutting, which are important supplementary sources of income for the Hmong people in Dong Dan. As an alternative DAFSO tells them to grow banana and sugar cane but they are not taught how to do it, given seeds or helped with marketing.

During discussions on alternatives in development, women mentioned that the first priority is to have an irrigation source in the dry season to grow vegetables as a compensation for the loss of income from opium plantation.

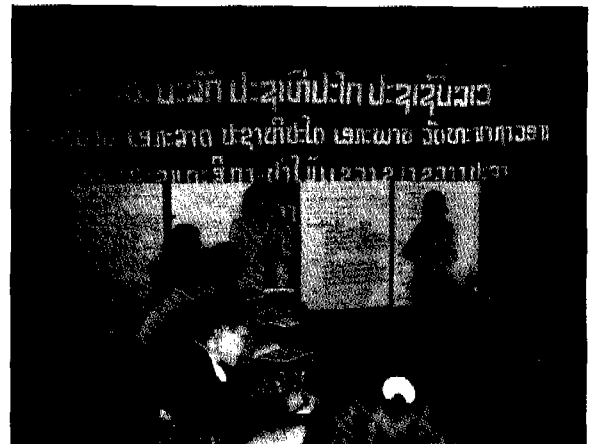


*Ban Dong Dan "Dreamed Village" Women's Drawing*

Secondly they emphasised the potential for cattle raising, as pasture land is available in the area. Until now this activity has been quite successful but limited in scope, as they do not have money to invest. They requested assistance in cattle production on a grant basis. The women are also interested in embroidery, however they need assistance with marketing and design.

The village LWU leader expressed her plan to set up a drug store. She said that it is not only in her own interest but also for the whole community, as no medicines are available in the vicinity.

After our last visit to the village we organised a workshop in Phonsavan at the provincial Agricultural and Forestry Service Office, for which staff and representatives of DAFSO, LWU and villagers were invited. We presented our comprehensive findings on the role of the Hmong women in socio-economic and irrigation development.



*Workshop in Phonsavan*

Also this time specific recommendations were discussed and how they can be realised and organised<sup>42</sup>. Mrs Maiwong, the chairwoman of the provincial Lao Women's Union, emphasises the cooperation between the irrigation office and the Lao Women's Union as they implement many income generating activities in the province. She will investigate the potential for chicken raising and vegetable growing. The main condition is that the people should be interested in improving the conditions. She will make an assessment in the village to incorporate Dong Dan in the 'integrated rural development programme' of UNICEF. Last but certainly not least, the provincial office will make a survey to install a hand pump in the village.



*Drawing Dream maps in Dong Dan*

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<sup>42</sup> The specific points made are:

- \* Pafso should send a female extension worker to Dong Dan to identify the chicken disease (train one woman in the village to give vaccination and provide stock to sell).
- \* Assistance of PAFSCO should be given in growing sugar cane and banana trees.
- \* Cama craft will be approached to organise embroidery (pot holders) income generating activities in the village.
- \* UNICEF has to install a hand pump
- \* Access the possibility for implementation of the integrated rural development programme of UNICEF by the Lao Women's Union.

## 6. BAN NONG JA MA: KHAMU WOMEN AND BOMBS IN PADDY FIELDS

*It is a programme for women, but men should help women, so, it is a programme for women and men. (Chairman of Village Development Committee, Ban Kham Muang, Xieng Khouang Province)*

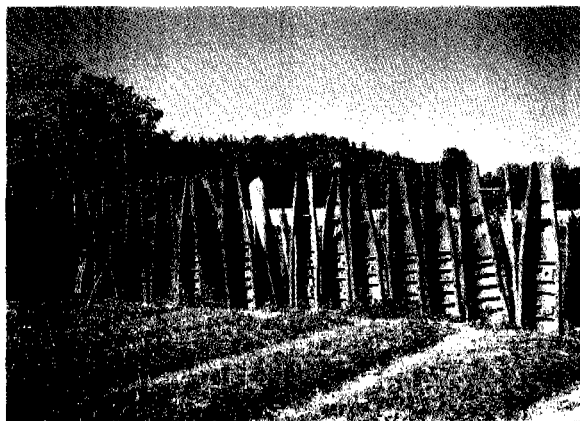
### 6.1. VILLAGE PROFILE

Ban Nong Ja Ma is located in a small valley in Xieng Khouang Province, Peak District, Nam Ko Sub-District, 14 kilometer north of Phonsavanh, the capital of the Province. It is an isolated small community which according to the administration is considered a quarter of Ban Nam Ko village, which is located four kilometer to the north of the settlement. In the past the community was an independent village, so in this Chapter it will be called Ban as before.

The whole population belongs to the Lao Thung ethnic group, the Khamu sub-group. Originally, 150 years ago, they lived in Mouang Hiem District, in Houaphanh Province, an upland area. Over the decades they migrated down to lowland settlements. The features of the group show their Khamu identity, but they do not wear special clothing or a folk costume. The women only have a special way of wearing head scarfs wound around their head. The men wear special models of large hats which gives them a cowboy-like appearance.

A first view in the village reveals that it has suffered much under the heavy bombings during the war. As mentioned before, from 1968 to 1973, Laos suffered of the heaviest aerial bombing in the world history. The consequences of this massive bombing are very visible in the village. Reminders of bombs and tiptanks are used as fences for vegetable gardens, or as support pillars for the shed of the Khok Tin. Bombs are even used to make the irrigation dam more sturdy. The gate to the village consists of two half bombs.

The bombing left many thousands of unexploded anti-personnel cluster bombs and other ordnance hidden in the soil. Before the resettlement of the Khamus the Lao Government twice carried out a detection and



*Tiptank fence for vegetable garden*

eradication operation of anti-personnel bombs and marked the limits of safe land. The Mennonite Mines Advisory Group writes:

But still many of these tennis ball sized bomblets failed to explode, and over time have settled into the soil. When these bombs are struck by a farmer's hoe, or are disturbed by a child who thinks he has found a toy, they often explode, maiming or killing anyone nearby. In the first ten weeks of 1994, the Provincial Hospital of Xieng Khouang Province reported nineteen casualties related to cluster bomb explosions (June 1994). In 1993 there were 100 casualties in the Province.

In the village we met a young man who showed the wounds in his arm because of the explosion of a bomb when he ploughed the earth in 1989. Last year it happened that a villager was digging the earth to open up some new paddy land. Suddenly, he realised that he had hit an unexploded bomb. As he was aware of the risk, he carefully managed not to become wounded. This farmer had his own experience

because he suffered for bomb explosions during the war, and, unfortunately, at that time was badly injured. He said that he does not allow anybody to join him, and in particular not his son, to make a new plot because the risk is too high.

The Mennonites emphasize that the elimination of cluster bombs will protect the Lao villagers from further physical and psychological trauma, and could potentially open up tens of thousands of acres for planting rice.

In Nong Jama the production remains low as farmers are scared to plough their land deeply, and to work on new extended areas where it is needed to clear and dig deeper than usual.

The village is bordered in the north by the villages Phou Leng and Ban Dong, in the south by Ban Lieng, and in the west by Ban Nam Ko. The settlement is located on a highland slope of the mountain Phou Lieng with patches of small valley areas with paddy fields, and some small plots for maize and vegetables. There are two streams and one large natural pond, which explains the name of the village Nong Ja Ma (*Nong* is lake, *Ja* is grass, *Ma* is horse). The story is that a horse died in the grass near the lake, and as a reminder to this sad event, the village was named Nong Jama.

It is a small community with 22 households. Most houses are settled along both sides of Road No. 9, and are mostly medium sized, built on pillars with wooden materials including the roofing. Some poorer houses are built on the ground with bamboo walls and have thatched roofs.

The village was established around 1940 by the people migrating down to the plain from Ban Nong Hen and Ban Xang, Peak District to find paddy fields. It is assumed that at that time the number of households was the same as now. During the war period, particularly in 1969, the village was completely destroyed. Many people were killed by bombs. This is the tragic story the head of the village told us,

We are Lao Khamu (Lao Thung). We lived in the uplands of village Nong Hen, Peak district till 1952. We could not survive in

that place because of lack of Hai paddy fields. We came down to the valley in search of Na fields and settled at this place. However, in the new environment we could hardly find any rice fields and we had to cultivate Hai fields again, but we also specialised in raising cattle. We had large buffalo and cow herds. When the war came we made trenches and hid there, as the bombing was increasing day by day. In 1969 the village was terribly hit by the bombardments of the USA: 'We were working in the paddy fields and suddenly these bombs came. Four of my brothers were killed. One younger brother cried for help, but when we looked at him, we saw that he was cut in two pieces'. Practically all the cattle in the village were killed. Some families lost more than 150 animals. There was no other possibility than to flee to other places. Some went to Vientiane, others to Longtieng. After 1975 many of us came back and the army cleaned the area of bombs, but not enough as we still found many. We have not enough land and we earn cash with wage labour. The women do not engage in wage labour. We are busy with our small vegetable garden in the rainy season. We desperately need irrigation, but two times our efforts have failed.

In 1975 they came back to the village and they started to build temporary houses in the same place. In recent years the situation became somewhat better and some families have been able to improve their housing. Those who have labour available requested permission from the Provincial Authority to cut trees for construction material. So, little by little the villagers constructed more solid houses than before. The villagers stated that those people who have not enough rice for subsistence, hardly have a chance to get a better house, as the preparation of making wooden planks for the construction of a house takes a long time of cutting and sawing in the forest. After the harvest these people have to spend all their time earning money to buy rice rather than staying in the forest to prepare wood for

housing. The quality of the house is a good first-view indicator for rice shortage or surplus of a family.

The number of inhabitants is 151: 77 women and 71 men. The age composition shows a high percentage of children and young people: 55% under the age of 15. The adult group which forms the active labour force consists of 32% of the population. Elderly people, above 50, form 13%.

It was a surprise to find that the villagers seemed to be converted to the Catholic religion since 1958, when a Khamu priest came to them and told them about the bible and established a small church. In talks people stated that the religion had a meaningful influence on their life. It changed the beliefs and behaviour from the former ancestors' spirit to the practice of the bible. The traditional faith made them superstitious on health matters, and many times they died because of the delay of appropriate treatment. They appreciate the religion as it teaches villagers to be honest, and to refrain from smoking and drinking alcohol. The priest taught them to eat only well cooked meals, and to use only medicines when falling ill, instead of killing cattle or chickens for making donations to the Phis (ghosts). After the conversion they observed susceptible changes in their life, and it became better. Before the war there was a church in the village where men, women and children attended the services two days a week. The church was destroyed by bombing and has not yet been rebuilt. Now that the situation has changed again, most villagers are no longer interested in Catholic religion and the men started to drink and smoke. The villagers have some vague thoughts of rebuilding the church, but there is no money, no time and no priest, and nobody can read the bible.

There is one primary school, which was constructed by the villagers last year. It is a wooden building, well equipped with suitable wooden tables and chairs for children. There is one woman teacher living in Nong Jama. The school consists of 2 classes, with 22 pupils: nine girls and nine boys in the first class and one girl and three boys in the second one. The older children continue schooling in the next village Nam Ko; that means that small children have to walk four kilometers every day to school. There are seven children

from six to ten years old who do not attend school as their parents are concerned about the physical capacity of their children. At the secondary level there are 27 girls and 35 boys studying. Only two boys are sent to Phonsavan to study in High School. Illiteracy among people over 45 years is frequent. Women expressed the need to have a school nearer to the village. They also want to have a kindergarten for the younger children. But the teachers are not available, as until now nobody from the village has reached the required educational level.

There is no health facility at all, and when people get sick they try to take care of themselves by buying medicines in the drug store, or they go to Phonsavan hospital. This means that minor illnesses are not treated until they become more serious. There is one nurse who gives injections.

The environment around the houses is quite clean and good: five out of 22 houses have a latrine. Drinking water is from wells which do not dry up in the dry season.

## 6.2. IRRIGATION HISTORY

In the past the Khamus were not familiar with irrigation. The change of their habitat, the abundance of rains, the increase of rice shortage, the impossibility to extend paddy fields while more mouths had to be fed, have urged them to think about the crucial need for irrigation. The village leaders have shared experiences with other villages where people have skills in local irrigation techniques.

Three years ago the community decided to set up an irrigation project designed and implemented by all villagers: all men and women were involved in the construction of a weir. The people constructed a traditional irrigation system themselves: a dam with earthen canals. The first time they invested in 500 pieces of wood, but it was washed away with the next rains. The second time they invested in 600 wood blocks and even scrap parts of bombs on the same Nam Nhouanh stream, but at a new place which was also a failure. In this way they wasted 1,000,000 kip and many days of labour.





*Irrigation dam with bomb scrap*

They approached the District Agriculture and Forestry Service Office in 1992 and 1993, but did not get substantial help. However, the officers of the district irrigation office came to make a survey. They have not approached the Provincial Irrigation Office, as they did not dare. They are afraid that they have to take a huge loan and they will not be able to repay. This fear is no doubt an unplanned side-effect of the prevailing IFAD programme in the area, in which the farmers can get credit from IFAD to construct their irrigation infrastructure. The village has a total of 10 ha cultivable rice land, but if the traditional irrigation system works they can irrigate only two hectares. There is a serious shortage of rice for eight to nine months. The minimum land holding size is 0.3 ha and the largest 1.7 ha. They do not dare to dig deep during ploughing of their land, for fear of explosion of the remainders of bombs.

During our third visit, the village head told us that the people are hit by a new disaster. The typhoon of 17 October 1994, coming from the Philippines, destroyed 70 % of the rice harvest, which was almost ready to be harvested. The desperate villagers told us that they have not more than three months rice to eat

and that they do not know how to get cash to buy additional rice. They showed us the devastated fields and many women expressed their despair.

### 6.3 THE POSITION OF WOMEN

#### – Residence pattern

The Khamu are patrilocal, but that is not an absolute pattern: in six out of 22 cases the family lives in the mother's house. However, in such cases the house spirit of the house of the man has to give him permission to live in the house of the woman. One old woman told us that in case a young couple wants to move from the house of the man to the house of the woman it sacrifices a pig, rice and other food to the house spirit and they organise a Baci ceremony to make sure that the house Phi will not be angry on his departure.

In 15 households the women stated that female relatives live in the village and that they support each other. The duration of residence in the house ranged between 20 days to 17 years. 13 households have lived in the house for a relatively short period, and seven more than ten years.

#### – Age, size and composition of the family

The average age of the 22 women we interviewed was 38, and the men 45. The seven years difference in ages is mainly due to one couple in which the man remarried a wife twenty years younger than he. In two cases the difference of age is roughly 10 years.

The household consists usually of nuclear families (15 cases) and in seven cases of a joint family of three generations, similar to the Lao Lum pattern: parents, children, grandparents and/or relatives. The average household size is nearly seven persons per household. The range is as follows:

**Table 6.1 Frequency of household size**

Size of h.h.	3	4	5	6	7	8	10	11	12
Number of Cases	3	1	4	3	4	3	1	1	1

Source: Interviews 22 women.

## Marriage, bride-price and deliveries

The age of marriage in the Khamu community fluctuates from 16 years to even 32; in the last case however it was a second marriage. Normal marriage age is from 16 to 24.

Four women stated that there was no bride-price given at marriage. In five cases money was given as bride-price varying from 50,000 to 60,000 kip. In one case silver and a small amount of money was given. In all other cases only silver was given. As usual the parents of the bride present the young couple with pillows, blankets, bed, two or three pigs, chicken, cow, buffalo, rice, and some 'nice alcohol'.

The mortality rate of children is very high. Annex 6.1 shows that of the 136 babies born, 48 (35%) children died which is a high figure<sup>43</sup>.

One woman had 12 children of which even 11 died, and another woman had 20 children of which only 7 survived (see Annex 6.1). The younger generation (up to 35) has on average six children and want family planning. Three women have undergone sterilization. Younger women show interest in birth spacing methods. They do not like to take pills, because they worry about the side-effects. They also wonder about the sterilization operation; they think that after the operation women cannot perform hard work. On the issue of family planning the men share the perception of women.

There is one nurse (6 months education), who has a knife for cutting the cord at deliveries. Most women in Nong Ja Ma give birth at home, only in six cases did they deliver at the hospital. To the question who assisted at the delivery, all possible combinations of answers were given: husband and his relatives, wife's mother, sister, neighbours. Only in one case did a woman answer 'nobody'. The new generation is aware of basic rule of hygiene. Scissors are boiled before cutting the umbilical cord.

When we arrived in the village we met a young woman who had delivered a baby two days ago. The family had made a special small house for the young couple in which a fire is burning. The mother has to drink hot water and take a hot bath four to five times a day. The baby is bathed three times a day in hot water. She told us that she has to observe special food taboos: the fish variety Panai (Chinese carp) and the meat of the white buffalo, cow, duck, some vegetables (cucumber, chili, the flower of the banana) are forbidden. Chicken and the meat of the black buffalo and some vegetable are allowed. She also has a charcoal fire under the bed. How long the fire will burn depends on her, and her husband's decision. The food taboos will have to be observed for at least one month. This shows that also in the Khamu community the young mother is well looked after by her husband and female relatives, and has to follow similar ante-natal customs and a special diet to regain her strength as we found in other communities and villages.

## 6.4 WOMEN'S ECONOMIC ROLES

### – Economic resource base: land

Since the proclamation of government policy for discouragement of shifting cultivation in 1979, the villagers say that they stopped the usual activities of slash-and-burn. Before that, the shortage of rice was compensated by Hai production. The head of the village even said that recently farmers had to sign a decree, handed over to the village head by an officer of the District Agriculture and Forestry Office, in which they had to state **not** to practice slash-and-burn any longer. They all have signed the paper. For the use of small plots they have to pay land tax. Perhaps this new policy, and the signing of the decree is the reason that the majority of households stated that they have 'a little' of Hai land. It is difficult to assess the credibility of these replies. Longer anthropological research will be necessary to trace the real land use in Hai cultivation.

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<sup>43</sup> We were not able to investigate more in detail the ages of the babies and children who died. The figures are just rough indications to reveal the problems and sorrows of the Khamu families.

**Table 6.2 Land size of 22 families in Nong Ja Ma Village, Xieng Khouang**

H.H. No.	Size of landholding	
	Lowland	Upland
1.	Don't know	Don't know
2.	1.2 ha	a little
3.	1.4 ha	2,000 m <sup>2</sup>
4.	4,000 m <sup>2</sup>	200 m <sup>2</sup>
5.	1.2 ha	600 m <sup>2</sup>
6.	2,000 m <sup>2</sup>	20 m <sup>2</sup>
7.	2,500 m <sup>2</sup>	100 m <sup>2</sup>
8.	Don't know	a little
9.	-	a little
10.	8,000 m <sup>2</sup>	a little
11.	7,000 m <sup>2</sup>	a little
12.	-	a little
13.	3,000 m <sup>2</sup>	a little
14.	3,500 m <sup>2</sup>	a little
15.	200 m <sup>2</sup>	a little
16.	2,500 m <sup>2</sup>	a little
17.	8,000 m <sup>2</sup>	a little
18.	1 ha	3,000 m <sup>2</sup>
19.	1 ha	3,000 m <sup>2</sup>
20.	Don't know	Don't know
21.	5,000 m <sup>2</sup>	-
22.	1.1 ha	a little

As indicated by the table there are only six households having one hectare of land or somewhat more. Two families are landless. Three women stated that they did not know the size of the land.

The Khamus are patrilineal that means that the land is inherited by the sons with a preference for the youngest son. On the question 'in who's name the land is registered' the replies showed that in 14 out of 22 it was the husband's name. In seven cases the dominance of the husband was very clear: husband and wife bought the land together, but the registration is only in the name of the husband. But there is also a case in which the land is inherited from the parents of the husband, but the land is registered in the name of husband and wife. This means that this more equal 'gender' registra-

tion is possible. In eight cases the land was inherited from the parents of the wife and only in two cases it was registered in her name. In the other cases it remains registered in the grandmother's, wife's parents', younger brothers', etc. name.

#### - Paddy cultivation

Rice cultivation is limited to paddy fields only. But the area is only about 10 ha for 22 households. This means that farmers possess on average not even 0.5 ha per family. The buffalo is the only means of traction.

Villagers have already exploited the existing area suitable for paddy fields to its maximum. The yield varies from one to three tonnes per hectare but the villagers said that the yield can certainly be increased

with irrigation water. It is rare that any family has enough rice for subsistence, except two families who came first and could acquire enough land for production. So, it is visible that their wealth situation is better. The shortage differs from four to eight months per year, depending on the rainfall and the functioning of the irrigation dam. The damage of the typhoon to the 1994 harvest will cause an enormous shortage of rice next year.

Last year UNICEF, in collaboration with LWU, implemented the rice bank programme in the main village, but the programme has not reached the quarter where we conducted our study. But the people know about the system and their point of view is that the interest rate is too high (20%), and the repayment of paddy is too quick. The quality of paddy is not so good. The maximum they can borrow is 500 kg and the minimum is 200 kg. Rice is borrowed in September and has to be paid back in December. The rice is of very poor quality with too many empty rice husks. Of 200 kg borrowed, after winnowing only 130 kg remains.

### – Division of labour

The main labour force for agricultural activities consist of 49 persons; out of these 25 are women. The war has also had a decisive impact on the division of labour of women in case their men were injured by the bombing during the war. The following portrait of Mayoury illustrates the very difficult life of a woman, and the workload she has to face as a consequence of the war.

She is 52 years and her youngest son is 4 years. She wears the traditional headscarf of the Khamu's on her head. She married when she was 13. She had 14 children of which seven died. They died because she is poor and has no money to call a doctor. She knows that some children died of malaria. She lost one daughter of 15 years in 1969 during the bombings. Her husband was also badly wounded and got many bomb splinters in his body. Until now some have remained and it is only now that they could save money to enable him to go to

Vientiane to consult doctors on how to remove the splinters. As he has been disabled since the bombing, she is fully responsible for the rice production and the earning of cash. She also does the ploughing of the land with the help of her son. She has only 0.7 hectare of land and no water. The two oldest sons of 21 and 19 are unemployed. Her two daughters of 14 and 12 go to school. Three boys of 9, 6 and 4 years stay at home. She has a small vegetable garden for home consumption. Sometimes she can earn some cash in the market: from 500 to 1000 kip. She goes early in the morning with the basket with vegetables on her back. She has seven cows, which also provide income. Irrigation water is the first priority for her to increase her rice production in the lowland field. Secondly, she hopes that the Lao Government will give support to her handicapped husband as a war victim.

Mayoury's husband still has many fragments of so-called 'anti-personnel bombs' in his body, mostly visible under the skin. One of these is still sticking in his chest. It continuously causes pain during breathing. Therefore he has gone to many hospitals and during our visit he just came back from Vientiane after trying to see doctors to get an operation. He was very disappointed as the doctors told him that the operation was technically not possible.

Farmers plant secondary crops such as maize, cassava, pumpkin and all varieties of local vegetables. All plots are small and located around, or close to the settlement. Women talked a lot about the secondary crop plantation. They said that if irrigation was available they would start growing vegetables along the irrigation canal, and in this way they would be able to get money for buying rice. They talk with enthusiasm about the new or 'dreamed' plan. They think their plan is feasible as they have the advantage in marketing due to the village location, not too far from the capital Phonsavan.

## – Livestock

The main activity in livestock is cattle raising. It is carried out by letting them free in the forest on the nearby mountain without any special care in the rainy season. In the dry season the cattle return home to eat the rice straw. Cattle diseases are rare, so villagers are very interested in raising cattle. Every household has at least two to three animals: two families own more than 30. Medical care to prevent spread of diseases is carried out as required.

The women are skilled in raising poultry and pigs. This year all poultry died. Vaccination is only given to buffaloes and cows. They want to raise more pigs and start again with chicken raising and fish ponds, but they lack funds. On the other hand they are critical about the Unicef credit programme which provides 36,000 kip per household to raise pigs. They think that the loan is not enough to be successful. One pig costs 30,000 kip, so only 6000 kip is left to feed the animal. However, they want information on animal diseases.

## – Wage labour

After the harvest a few young men move away from the village in search of wage labour. They have skills in the construction of wooden houses. Usually they can find a job as construction labourer in Vientiane Province, mostly Vang Vieng. In view of the catastrophe of this year the village head said that he considers going to Nunghet district to do agricultural wage labour and to weed the fields of the Lao Sung people.

## – Handicrafts

The women have no skill in weaving and embroidery, and they stated that they do not want to learn that. Traditionally, elderly Khamu women used to be weavers, but over time they lost their skills and in particular the interest in it. They prefer to do other physical work and earn money to purchase ready-made clothes, instead of sitting patiently weaving and

spoiling the eyes. There is only one woman weaver (Lao Lum) in the community, who came from Vientiane to live with her husband here. She makes beautiful designs and does good business.

However, Khamu women have specialised in making thatched pieces for roofing. They have to walk a long distance to collect the grass from the forest but this activity is specific for women and an important source of cash income<sup>44</sup>. In view of future investments in irrigation it is has to be explored if the thatching skills of women can be improved and expanded.

## – Domestic labour

Drinking water comes from the mountains by bamboo tube. Some women complain about the quality of the water and report that it is very 'cloudy' in the rainy season. Washing clothes and bathing is done in a small stream. As regards fetching water, the women insist that men also participate. The first one who comes back from the fields, work or school has to start fetching water. Everybody uses firewood for cooking and they fetch it on the back or on the head. In the majority of cases the husbands fetch the firewood from the forest accompanied by the children. Sometimes the wife joins in. But it is also reported that the daughter-in-law or the oldest daughter takes care of collecting firewood.

## 6.5. WOMEN AND INCOME

From the following overview it can be seen that the yearly income is mainly obtained from selling vegetables and livestock by the women. Thus, when it comes to investment in cash in irrigation in the near future, the women are the main earners. No income is earned by selling forest products and handicrafts. Neither do the Khamu's in this village have any relatives sending money from abroad. Only in four families was

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<sup>44</sup> In Bolikamxay we visited also a Catholic Khamu village. In the village the women also made thatched roof coverings and baskets for sticky rice. Merchants came in the village to buy the products, but the women also go to the market 2 to 3 days a week; selling their products did not seem to be a problem.

**Table 6.3 Overview of annual income (in kip) of 22 households in Nong Ja Ma village**

H.H. no.	Selling agric. products		Wage labour	Other	Total income
	Produce	Animals			
1.	3,000	—	30,000/y	—	33,000
2.	200,000	150,000	40,000/y	10,000/y	400,000
3.	5,000	80,000	—	—	85,000
4.	5,000	50,000	—	100,000/y	155,000
5.	60,000	120,000	—	100,000/y	280,000
6.	60,000	46,000	—	100,000/y	206,000
7.	—	—	—	100,000/y	100,000
8.	—	—	—	—	—
9.	—	—	—	-13,000/m	2 m here
10.	—	—	—	—	13,000
11.	10,000	—	—	25,000/m	10,000
12.	Together	25,000	—	—	50,000
13.	—	—	—	—	—
14.	5,000	60,000	—	—	65,000
15.	10,000	20,000	—	—	30,000
16.	15,000	30,000	—	—	45,000
17.	20,000	200,000	—	—	220,000
18.	5,000	—	100,000/y	—	105,000
19.	30,000	10,000	—	—	130,000
20.	35,000	180,000	—	30,000/y	215,000
21.	60,000	—	—	—	36,000
22.	—	—	200,000/y	—	200,000

some income earned with wage labour. Eight women earn money by making thatched roof parts: an income varying from 13,000 to 100,000 kip. The range of the total income is between 400,000 kip and no cash at all.

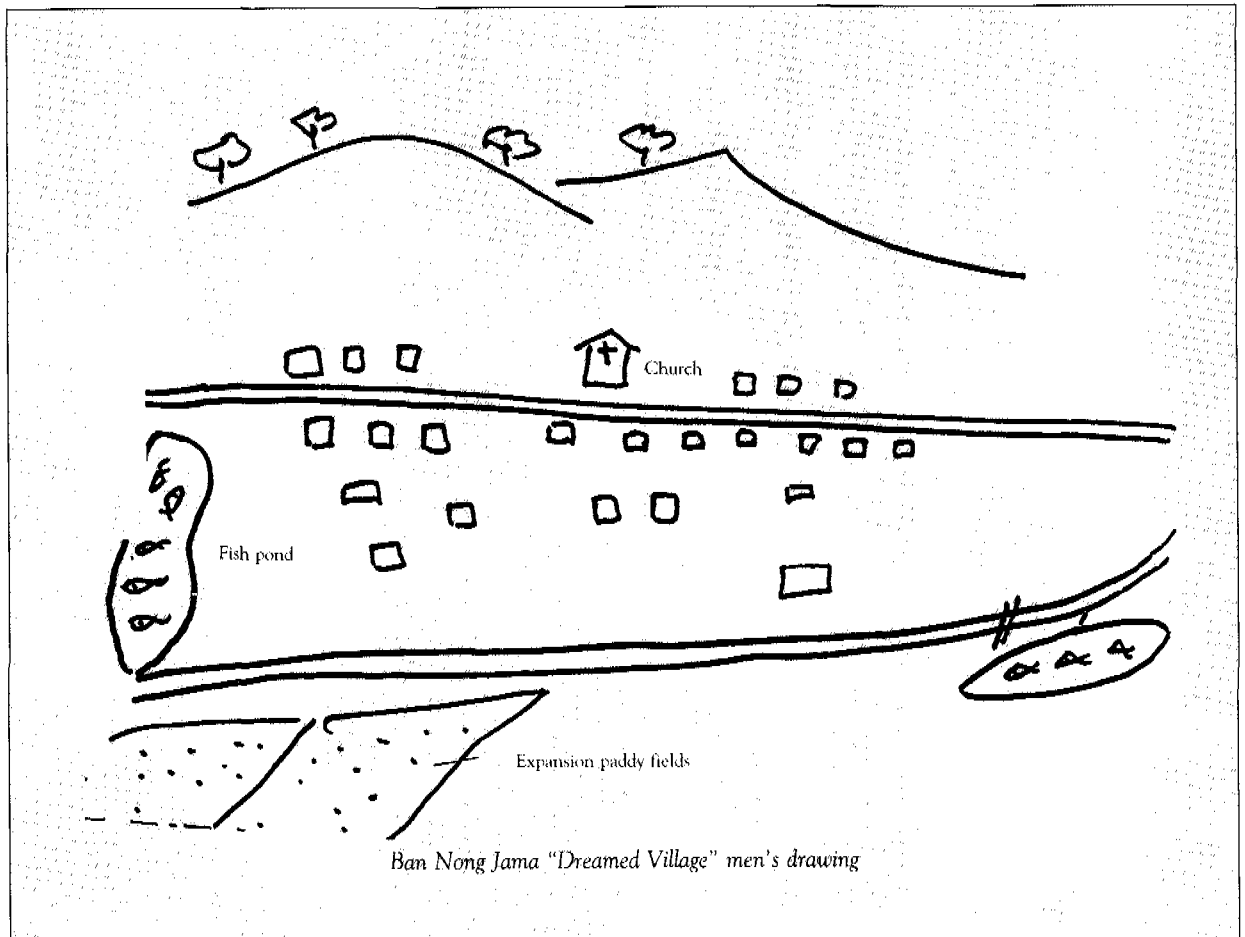
It was emphasized that nowadays no income can be obtained from cutting wood or selling firewood, as strict regulations forbid to use this former source of income. For wood cutting, permission is needed, and they have to pay for it. They are allowed to fetch a load of firewood and wood for fencing out of the forest for their own use, but permission from the village administration is required. The control on this regulations is in the hands of the head of the main village.

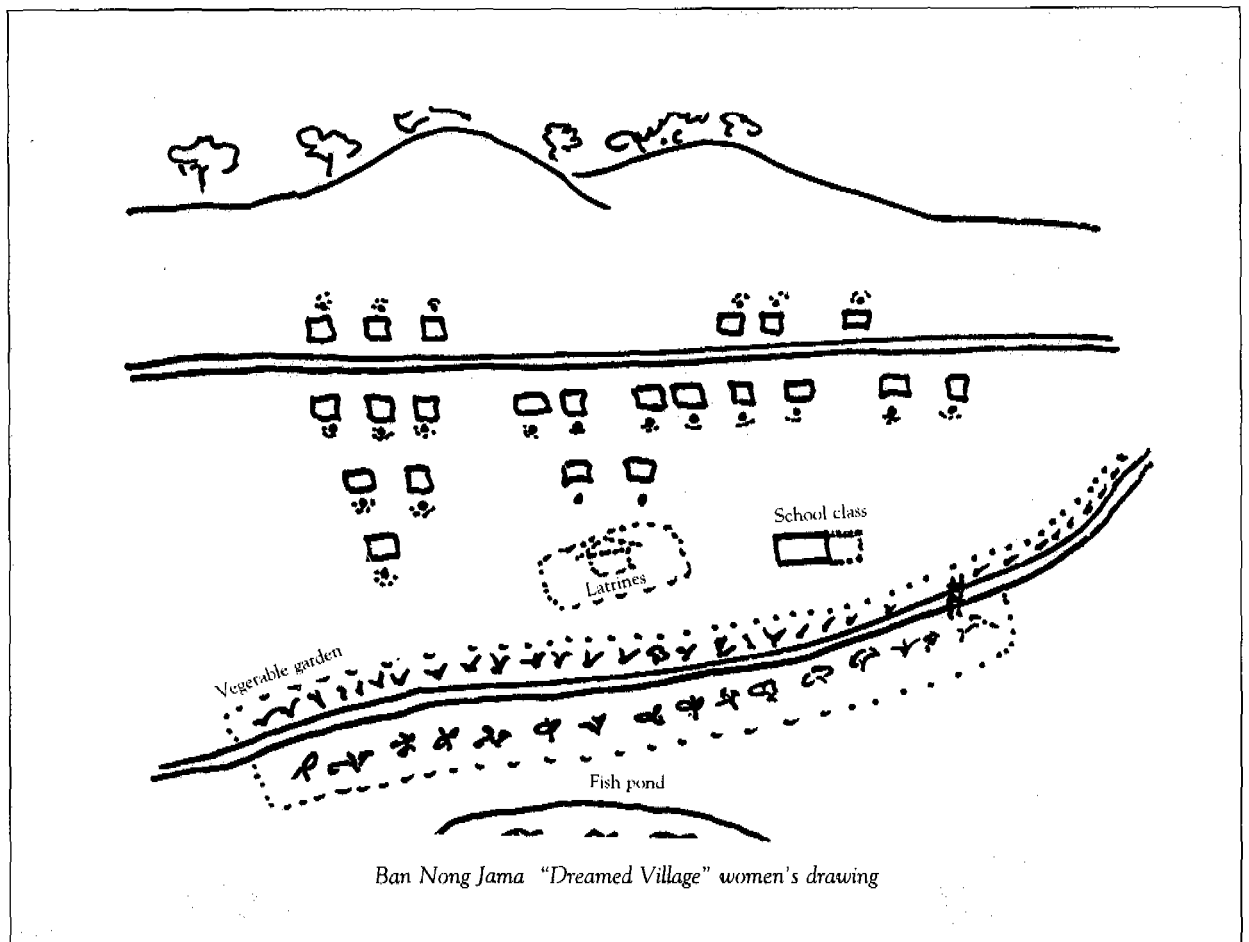
## 6.6. CONSTRAINTS AND DREAMS

Summarising we can state that the main problems as perceived by the women in the village are as follows: the shortage of rice due to the limited area of paddy fields and the risk of bombs exploding, and the failure of the irrigation system in which their traditional dam broke down twice. No compensation by rice in Hai fields is allowed, and they have no access to funds for raising more livestock. Their low income is mainly due to restricted income generation opportunities.



*Drawing dream maps in Nong Jama*





The head wants to make a fish pond for the village as soon as the irrigation water is available. A talk with some young men in the village showed that their situation is also almost hopeless: no work, no possibility for study, no land, no water. They need credit for buying more cattle and pigs.

## 6.7. A VISIT TO A SUCCESSFUL KHAMU MODEL VILLAGE

During our discussion with the chairwoman of the Provincial Lao Women's Union, Mrs Maiwong, she told us about the success story of Dong Kang Muang village. It is also a Khamu village and women have saved money from the rice bank and financed the whole irrigation scheme in the village. She told us the following:

The Khamu villagers moved from the high-land to the lowland at the time of

liberation in 1975. They were suffering from a cholera epidemic due to dirty water, unhygienic conditions and poverty. They wanted to be nearer to a town and medical aid. They lacked rice and had to take loan with 300 % interest. With very hard wage labour they had to pay back the debts. The District Governor asked the District Lao Women's Union to investigate what could be done in the village to improve the conditions. The 'integrated rural development' programme was brought to the village. A 'village development committee' was established. UNICEF donated 15 tonnes of rice in 1992 and the women of LWU started a rice bank where rice could be borrowed with a small interest. In 1993 and 1994 the rice bank managed to save three and six tonnes of rice, respectively.



They sold the rice and invested the money in making a water reservoir and irrigation canals with free labour. Because of the availability of water they were able to hire a tractor, and in 1993 they opened seven hectares of land and in 1994, ten hectares of new paddy land. The land is very fertile and the harvest is extremely good: five tonnes of rice per hectare.

The chairwoman of LWU in Xieng Khouang Province continued by telling us that the Third National Lao Women's Union Congress chose this village as a model one. There is an evaluation team of LWU in the village to assess the achievements. The women of the village received the Certificate from the central government of the LWU of the so-called 'Three Goods' (good citizen, good development, good family, which implies a new culture/education and good family management, solidarity in the family, preservation of Lao tradition, happiness and monogamy, looking after old people).

As we were interested to know more about the role of women in irrigation development and in an integrated rural development project, we decided to visit the village.

The village is located in Muang Kham, four hours drive from the capital in a mountainous area. There is only a small sandy path leading to the village. Houses are scattered in clusters. We met the village leader of the Lao Women's Union. Some years ago she fell in love with a Khamu man and they married, therefore she lives in the village: she is from a Lao Lum community. There are 37 households. The village has three wells, only four metres deep. The village must be located at an altitude of about 700 to 1000 metres above sea level, but nobody knows exactly.

We walked to the reservoir, constructed in 1993. There seems to be plenty of fish in it without feeding. The first year they invested 200,000 kip, but the reservoir was damaged, and therefore they invested another 500,000 kip to make it better. A tractor was hired and 50 people (25 males and 25 females) worked one

week on the basis of voluntary labour to construct the lake. There is only rain water in the lake. Eight households benefit from the scheme, and had extremely high rice yields of five tonnes per hectare. They lent out their rice surplus to other villagers with a shortage of rice, to prevent their having to compensate their rice deficit with shifting cultivation. Previously they had five to eight months rice but now the whole village is self-reliant. They have a total of 36 hectares of land. They plan to have even 100 hectares. The land area for one household is maximum 1.5 ha and minimum 3000/4000 m<sup>2</sup>. Ten households have no land. The LWU and the village committee want to open land for these families.

Our findings in the village revealed that there are many reasons for the successful integrated rural development in this 'model' village. In the first place there is a fantastic village woman leader (LWU) who has secondary schooling and who was able to motivate and stimulate the villagers to cooperate in the whole integrated development plan. The policy of the LWU of not asking for too many funds, but only according to the needs has contributed to the success of the project.

The implemented integrated rural approach of the UNICEF programme in Kang Muang village contains the following components: rice bank, credit and training for pigs and chicken raising, medicines and Oral Rehydration Scheme, school improvement, rice mill (mechanical), bicycle for the project (to be used by the project members), revolving fund for weaving (there are four Lao Lum women in the village teaching Khamu women how to make skirts), training for tree planting and tree nurseries.

The programme is managed by the village development committee. The elected president is a man and the vice-president is the Lao Women's Union representative. We ask why a male is the president in what we thought to be a women's programme? He states the remarkable words,

It is a programme for women, but men should help women, so, it is a programme for women and men.

Other noteworthy 'dreams' for the future mentioned were to have a tractor (male and female dream), to reduce expenses for clothing by training in weaving (female dream), and the Khamu village should look like a Lao Lum village. They should have rice and nice houses (male and female dream).

At the workshop in Phonsavan our findings in Ban Nong Jama and Ban Kham Muang were discussed with the representatives of the provincial agricultural office, Lao Women's Union and other authorities and three representatives of village Nong Jama (village head, Youth League and Lao Women's Union)<sup>45</sup>. It was emphasized that the model village shows that irrigation development can be successful in an integrated context of development. This makes it again clear that a women staff member should be appointed at PAFSO in charge of Gender studies and Women in development. The PAFSO deputy welcomed the recommendation to assign one woman with gender studies and Woman and Development matters, but he remarked,

We can appoint a woman, but how can she carry out her work if the budget is not available to do her work, e.g. gasoline to go to the villages.

The problems at the provincial agricultural and forestry were discussed. There is a lack of technical officers, a lack of budget for surveys, so also for gender studies, a lack of funds for study tours. They urgently need to have a small budget for gasoline. The deputy clearly summarised the irrigation policy,

Irrigation development is for all. But the contradiction is that irrigation development costs money and that in particular the poor villages need irrigation who cannot afford it. Therefore it is difficult in reality to implement the irrigation policy.

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<sup>45</sup> The specific issues discussed at the workshop for the solving of the problems of Nong Ja Ma:

\* A study tour of LWU women (and villagers) of Ban Nong Jama to Ban Kham Muang (model integrated rural development village).

\* The head of Nong Jama will report on the typhoon catastrophe.

\* The LWU will make an assessment to consider if the UNICEF programme of integrated rural development can be extended to Nong Jama.

\* The IFAD project has agreed to consider to include the village in their project irrigation planning. It is proposed to organise a committee for village development.

## 7. BAN BUNG SAN, ALONG THE MEKONG

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*Poor women are afraid to take loan as they are not sure how to pay back. If this irrigation canal has been here before, we would not have been so poor.*

(Woman in Ban Bung San)

### 7.1. VILLAGE PROFILE

Bung San village is located at Nong Bok district, 35 km from Thakek, the capital of Khammuan Province on Road No. 13B. It is a laterite road which runs parallel to the famous Road No. 13 under construction<sup>46</sup>. The houses are built on both sides of the road and every motor vehicle passing by raises clouds of red dust covering houses, plants, people, livestock and compounds. It can be imagined what the dust condition will be in the dry season, as our third visit was shortly after the wet season.

The village is connected with Ban Na Man Pa village in the north, Ban Don Khiao Neua village in the south, and Ban Bung San Thong in the east, which is an important village for the irrigation system. Downstream in the Mekong lies the island Done Pa Deck (which means Fish Sauce island), which is about seven kilometer long and two kilometer wide. The people of Bung San grow tobacco and vegetables on the island. Almost all families, except five to six, have their own (motor)boats which they use to reach their cash crop plots in Done Pa Deck island and also for fishing. The island is far, and getting there takes time, and is also dangerous, especially when it is windy and the small boats are heavily loaded with goods and people when coming back home.

It is assumed that the village was founded about 80 years ago by people who moved from Nhommalat-Bualapha District (upland area) compelled by the so-called 'Seuk Ho' war (beginning of this century under French colonialism). In an earlier period they had settled in the area of Ban Bung San Thong, but they moved again two kilometres to better land for paddy fields along the Mekong river. The name of the village is related to the physical environment of the

place: Bung means swamp and San is the name of a wild plant growing in and around the swamp. Women still search for this wild plant and make soup from it with chicken and meat.

The village is characteristic for its location along the Mekong river, which has created a life style and farming system specific for the majority of Lao Lum. The ethnic composition of the population is Lao Lum, but of 'Thai Vang' sub-group. Matrilocality, and matrilinear descent and inheritance patterns are dominant in the village, and allot powerful resources to women, such as ownership of houses and land as we will see in the next paragraphs.

The number of villagers is now 527, of which 278 (53%) are females. At present there are 97 households, of which women of twenty household were interviewed. The houses are built in the traditional style of Lao Lum: wooden houses on stilts. Only few have a lower part of cement and have recently been constructed. The size and quality of the houses show a substantial differentiation in socio-economic conditions. Some houses have a new television antenna on the roof, mostly earned with selling tobacco. One year ago the village was electrified but only a few houses have a connection.

Roughly, we can state that Bung San is the most well-to-do in comparison with the other three villages we have studied.

The villagers are Buddhists, and practice Lao Lum behaviour and traditions. The old pagoda contains a classroom of the primary school, and the temple building is used for different village meetings. There are three teachers, and three men in the village have off-farm occupations (one tuk-tuk driver, two traders);

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<sup>46</sup> Road no. 13 is famous as it is an enormous infrastructural project supported by the Swedish. It covers the stretch from Vientiane to Pakkading. For more information see the interesting study of Agneta Hakangard (1992).

all other men and women are farmers. Cultivation concentrates on rice production and tobacco and vegetable (spring onions) cultivation on the island. The primary school building looks unattractive and old. Village children can only attend three classes. In class one and two are more girls than boys, but, there is a dip in the number of girls in class three (eight girls and 15 boys). There was also an 'eradication of illiteracy' course in the village, in which more adult women participated than men.

There is one Health Post with some essential medicines, and one male village nurse who lives in the next village. The villagers go to see the nurse when they are sick. In case of serious sickness they go to Nong Bok District Hospital, which is located ten kilometer north of the village.

Eleven houses have hand pumps. They have not been implemented under the UNICEF scheme, but installed as private initiative. There are two dug wells, which give problems in the dry season. Only five houses have latrines. Women want the assistance from the Lao Women's Union, as they are implementing a latrine programme (materials and techniques) in other villages in Nong Bok District.

Some small soft drink and barter shops are run by women. For transport of firewood, hay, etc. women use the hand carts with rubber tyres, but very picturesque in Nong Bok district are the low carts pulled by charming small horses. Power tillers are used as a means of transport but not so much as in Bolikamxay province. One family in the village recently bought a hand power tiller and rent it out.

Some families have motorbikes, and bicycles are common for almost every house. Two times a day there is a bus connection with the capital of the province, Thakhek. The women of the village are the sellers in the market, and they, and the 'middle-women' who come to buy tobacco, make frequent use of it for transportation of goods<sup>47</sup>.

The village is managed and administrated by the head of the village. There is no water users committee but the sense of cooperation for collective labour is well developed, as we will reveal below.

There are only 40 members of the Lao Women's Union, on a total of 97 households. The number is so low, as the LWU accepts only married women who are willing to cooperate in an active way. According to the women leaders 'dormant members are of no use'. They ask a very small membership fee of 100 kip a year and are organized in 4 groups. The LWU women village leaders are respectively 53 and 50 years old, and are just able to read and write. They organise 'monthly meetings', which in fact take place only a few times a year. They collect money for purchasing presents for soldiers at Army's Day, and they receive guests of the village and contribute to different activities, such as the recent renovation of the irrigation canal.

## 7.2. IRRIGATION HISTORY

### – The old pumps

Several different versions of the irrigation history of the village were reported to us. We reconstructed the following on the basis of information given at provincial and district level, and in the village itself.

It is likely that the irrigation history of Ban Bung San started in 1968, when a diesel pump was installed in the village with a grant of USAID. It is unknown why this village was selected at that time. There is an assumption that the pump was basically designed for wet season crops. An earthen canal was dug by machine. The location of the river lift pumping station was in the middle of the village. The irrigation scheme was implemented top-down without any participation of villagers. The command area covered five to six hectares. The head of the village remembers well that he worked with his father in the field to get a second crop. The activities went on till 1972. The pump was

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<sup>47</sup> According to the opinion of the women only 'middle-women' can buy tobacco, as only they can assess the quality of the product: 'men don't know'. On the 'gender-use' of roads we refer to the notable study of Ing-Britt Trankell (1992) on the social impact of road construction on rural communities in Lao PDR.

abolished for political reasons and taken away<sup>48</sup>.

In 1978 the cooperative came a little late in the area. PAFSO installed a river lift diesel pump. The system was administrated and managed by the cooperative committee. It has been used for the common paddy fields. The budget for buying diesel and for pump maintenance was paid from cooperative funds in which all the member-farmers contributed. The maintenance of the irrigation canal was carried out with free labour. After three years of existence the village cooperative collapsed and the irrigation pump broke down. The village could not manage the operation and maintenance of the system any longer as there was no collective fund for interest to pay repairs. Due to lack of maintenance the canal filled up with earth and grass. Up to now the level of the canal bottom is lower than the paddy fields, which hampers the flow of water. The head of the village remembers that in 1982 the last second crop was harvested.

In 1988 PAFSO decided, at the request of the farmers, to renovate the diesel pump and to put the pump in operation. It could irrigate 30 ha in the dry season. It was used for three years, but the price of diesel was too high and farmers could not afford it. The investment was 145,000 kip per hectare and the output was 160,000 kip, so hardly worthwhile to do all the work for the rice cultivation. The old diesel pump is now used in Ban Na. There is a large rice shortage in that area and although it is expensive, it is better to produce rice than to earn cash to buy it. In 1990 to 1993 there was a gap as no irrigation pump was functioning.

### **– The new irrigation scheme**

In May 1993 PAFSO decided to renovate the scheme again to install two new powerful river lift pumps, as the electric connection would reach Bung San in October. One engine was donated by Australia, and one by an American church organisation. It was considered that water fees based on electricity rates are cheaper than those based on diesel. Precondition was that the existing old main canal should be dug out deeper by voluntary labour of the villagers. The map

with the lay-out of the scheme shows a planning of a command area of 300 hectares covering three villages. The pumping station site was changed. Instead of the north end it was moved to the south end of the village in the middle of two villages: Ban Bung San and Ban Done Kio Neua. The purpose is to serve both of them and in particular to provide irrigation water to village Bung San Thong, two kilometres inland, with a serious rice shortage.

The visit to the village proved that so far only the western main canal, around 2200 metres, has been dug out in November/December 1993. The main canal runs parallel with the road and lies in front of every house. The old secondary and tertiary canals were also cleaned by the farmers. The head of the village and the Lao Women's Union mobilised villagers, boys and girls from primary and secondary schools in the subdistrict to move earth and grass from the main canal. Women contributed as they collected food, rice, and money for the meals of the workers. Widows, and women in households without men, joined the digging. The digging work was carried out in four time periods under close supervision of the irrigation technician, and it was be finished as planned: 1000 m in Ban Bung San and 1200 m in Ban Done Kio Neua.

In the dry season of 1994 the functioning of the pumps and canal could be tested. 12 ha was irrigated for rice production. Information of the village chief revealed that the discharge of water was very heavy and the outflow of water overtopped the canal. That caused much waste of water (and electricity) and flooded the road and houses underneath. The canal is too small, shallow and narrow, in relation to the power of the pumps. A district authority was of the opinion that the organization of the digging by means of mobilizing local human labour, and even worse by 'outsiders' (school children), was not so efficient and effective. It was his opinion that, 'in view of raising awareness of farmers ownership of the scheme it may be good, but technically speaking it is quite weak.' The result of the voluntary manual work is that the bottom of the canal is not flat and that the control of the level of the water

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<sup>48</sup> As mentioned before, at that time America was bombing Laos in a terrible way and therefore an American donated pump could not be tolerated.

is not secured. Machine digging would have been much better. This opinion can be questioned as both machine work and manual labour rely on quality control and good supervision for success.

However, there is another unsolved problem. To sidetrack the water to the inland village, a pipeline has to be made through a swamp. It is impossible to do this work only by manual labour of volunteers. At district level it was unknown whether the budget allows for a machine supported solution. That is why our informants want to suggest the government to use only machines for digging the main canal, and get funding from the government as well. The villagers prefer to be responsible for the secondary and tertiary canals only. But they also said that if the budget is too low, they would be able to share in financing the work, provided it will not be too expensive, as they are still poor. According to the planning the total costs of the scheme are 382.4 million kip. 123.5 million kip has already been paid by Lao government: it is likely, but nobody can tell, that salaries of irrigation staff and the value of the donated engines are included in this amount. 200 million kip contribution from the population is expected: 100 million kip for the canal system, and 100 million kip for the pipeline through the swamp. Nobody of the villagers has ever heard of the expected contribution from them.

For the coming season (spring 1995) it is expected that 25 ha will be irrigated for the second crop. Out of 97 families, 52 have stated they will not use the water, as they already have enough rice from the wet season crop and are too busy with tobacco growing, and face a shortage of labour. The floods of this year have hit 11 families: 30 ha of the rice crop is damaged. The flood came from Xebangfei river over the plain. The victim families will compensate the loss by growing paddy in the dry season. In total 45 families will use the irrigation scheme, and they are responsible for cleaning of the canal in the dry season 1994–1995.

So far no formal Water Users Organization has been formed. For the functioning of the scheme there are only two men in charge: one as mechanic/operator and an accountant who is responsible for collecting the water fees. They are paid by the villagers in rice. The operator received 24 kg unhusked rice from each of the 32 participating families after the second 1994 crop. The normal water rate is 7000 kip for one hectare, but last year it was 10,000 kip. But with diesel pumping it would have been much higher.

Men and women expressed their interest in having a Water Users Organization. They said: 'We want to have a Water Users Organisation like in Muoang Kao scheme<sup>49</sup>. That is better for the water distribution and to avoid disputes among farmers'.

Besides the above mentioned irrigation scheme there is a system of canal drainage to solve the problem of rain floods coming from the Houay Lo stream, which is located about two kilometers from the Mekong River north of the village. The canal is designed to divert the excess water to the Mekong River. But in case of heavy rains the canal does not function adequately.

Drought and floods are problems in the village. This year the flood has caused a disaster to the rice harvest of 11 families.

## 7.3 POSITION OF WOMEN

### – Residence pattern

Of the 20 women interviewed, two women said that they lived in her husband's house<sup>50</sup>, eight stated that they lived in her house and nine described the house as owned by both. However, investigations showed that 'owned by both' means that the young couple split off from the joint family and constructed a separate house in the direct vicinity of the house of the parents of the wife. This shows the matrilineal residence pattern of the Lao Lum.

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<sup>49</sup> This is near to SIRAP (Sustainable Irrigation Agricultural Project), which is assisted with Dutch technical aid. There is much emphasis in that project on community participation, formation of water users groups, gender aspects, training and study tours.

<sup>50</sup> One of them explained that her husband is no Thai Vang but Puthai, who are patrilineal. She told us that after marriage her husband came to her house but the brother of her husband moved out. Therefore they shifted to her husband's house to live there. In the second house all brothers died except her husband; therefore they stay in his parents' house: there are no sisters.

This village is the first village we studied with a long permanent settlement background. Our findings reveal that many women have lived in the same house for a long time: four women for more than 30 years; five women for more than twenty years; six women for more than ten years and only four women have lived for less than ten years in the present house.

Female relatives live in clusters together and they support each other in their daily existence. For instance, during our interview the mother and aunt of our informant came with a cart load of firewood. She had female relatives in eight surrounding houses: her mother, her mother's sister's daughter, her grandmother's sister's daughter, aunts, nieces, etc.

**- Size and composition of the family**

The average size of a household is almost seven members, but this figure is slightly on the low side, as there is one family with only two members and one handicapped couple without children. If we delete these two cases from our sample the average size of a household is 7.2 members.

**Table 7.1. Frequency of household size**

Size of h.h.	2	5	6	7	8	9	10	11
Number of cases	1	5	4	3	2	1	3	1

Half of the number of families are nuclear, the other half are joint families living with grandparents from the mother's side.

**- Age, marriages and deliveries**

Two husbands of the 20 women we interviewed had died. The average age of the women is 44.6, and the average age of the men 47.6, which is quite high and may be due to our being introduced in the village via the Lao Women's Union. To compensate our bias we had long talks with young women.

Six women married at 15 years or even younger: two at 13. We were wondering if the early marriage age could be related to the matrilocal orientation of this

village as we came across families with only daughters, or families where the only son had moved out. People told us that they need a man to plough and to assist in house construction, and therefore pushed the marriage of their very young daughters who would stay with them. The following field notes show one of the reasons to explain the early marriage age,

Her name is 'Lucky', or more precise 'Always Lucky', and she is 34. She married for the first time when she was 15 years. As her parents divorced, she lived with her mother. They needed a man in the house to do the ploughing and therefore she was married at an early age. Her second husband is the owner of a tuk-tuk. Her first husband died in 1980, it was a difficult time. She has six children alive: three from her first husband (eldest daughter 17, son 16, daughter 14 years) and three small girls (7,5 and 2 years) from her second husband. She had a sterilization operation in a clinic in Thailand. She complains that after that her face became dark, she became fat and she had headaches all the time. She states to us, 'I look old, as I have to do all the men's work'.

The custom of bride-price reveals the high value given to women. In former days silver was given, but in our sample we found that in 15 out of 18 cases (of the twenty women interviewed one had no husband, and another woman could not remember) a bride-price in cash was given, or cash supplemented with gold. The cash amount varied: 200,000 kip (two cases), 150,000 (two cases), 60,000 (4 cases), 40,000 (two cases), 30,000 (one case), 15,000 (one case) and 2500 kip (one case). In the two households where silver was given, there was only a small additional amount of money, 1500 and 100 kip, respectively. As usual, seven women stated that they received a cow or buffalo from their parents as a wedding present, and furniture and (only in one case) some jewellery.

18 women in our sample had 150 children (average 8.3 babies born). One village woman leader had become pregnant 14 times and she lost seven unborn--and born children. She told us:

Two children died in my body and were six and nine months. The third has lived for 14 days and died of diarrhoea, the fourth had fever. The fifth got pneumonia when she was eight months. The sixth and seventh were abortions at six and two months.

We spoke with a poor woman, and she told us also a sad story that the first five children she gave birth to all died after three to four months. After that she had seven children, who all survived. Annex 7.1 shows the high mortality rate of children

In this Lao Lum community women do not cut the cord themselves; that is done by their mother, or

female relative which shows the close relationship between mother and daughter. The husband is always present during deliveries and helps with boiling water and, if necessary, with the cleaning. Two babies were born with the help of the village nurse, and two women went to the hospital in view of complications.

## 7.4 WOMEN'S ECONOMIC ROLE

### – Economic resource base: land

The matrilineal inheritance pattern and the ownership of land shows the strong position of the women in the village. As this situation is very characteristic for the matrilocal Lao Lum, the total overview is given in Table 7.2.

In 12 out of the 20 cases the land ownership follows the maternal inheritance line. Women showed

**Table 7.2 Registered ownership of land and inheritance pattern of 20 Lao Lum households in village Bung San**

H.H. no.	Land in whose name	From whom inherited/bought
1	woman respondent	parents of wife
2	husbands	bought together
3	parents of wife	parents of wife
4	husbands and wife	parents of husband
5	husbands name	parents of husband
6	parents of wife	maternal grandparents
7	parents of wife	maternal grandparents
8	woman respondent	parents of wife
9	woman respondent	parents of wife
10	woman respondent	parents of wife
11	woman respondent	parents of wife
12	woman respondent	parents of wife
13	parents of wife	maternal grandparents
14	woman respondent	parents of wife
15	unknown	unknown
16	woman respondent	parents of wife
17	husbands name	parents of husband
18	husbands name	parents of husband
19	husbands name	parents of husband
20	husbands name	parents of husband



in general an awareness that it is their land and should be in their name. However, our field notes reveal that some women are not aware of the importance of their landownership, which is shown in the following talk with a very enterprising woman,

She inherited the house and the land from her parents. Her mother and her mother's sister live in her house. But the paddy land and the island land is registered in her second husband's name. She does not mind in whose name the land is registered. Her husband came from the same village and has his own land, but it is still in his father's name. She has a hand pump used by many families. She has a big plot of land for growing paddy. Usually she can sell one ton of rice, as there is enough for home consumption. She does not grow a second rice crop and makes no use of the irrigation scheme because there is enough rice and she faces a lack of labour. Her eldest boy is 16, but he has already too much work. When we arrive, he is tilling the land with their power tiller to make it ready for growing chilies.

The above shows that this woman does not mind that her land (and house) is registered in the name of her second husband (who works in town as a tuk-tuk driver), although she works day and night to manage these assets. A possible divorce in the future, or other calamity, is obviously ruled out in her perception. In fact, the village Lao Women's Union leader and the official at the land cadastre had advised her to register the land in her name, but she said: 'I can hardly read and write, so my husband should do formal things'. In practice she is a small entrepreneur: in addition to the rice and tobacco growing and processing (with the help of the children), she has a small shop with toilet articles, cloth and stationery. She rents out their engine and blue PVC pipes for irrigating the island land (one hour is 900 kip) and has invested in a boat and pump (total 14,000 baht), which also can be hired.

To have a more in-depth view in the decision making role of women in a matrilineal social context,

we have asked specific questions on decision making. The replies on the questions we asked on decision making in agricultural production in the matrilineal Mekong village show, that out of 20 women, 6 women decide themselves, in 12 cases husband and wife decide together, and in only two cases does the husband decide. We have asked 12 questions about decision making in the family and public domain in Bung San. The decision making of women is prominent in every respect: the women decide what and when to plant in agricultural production, they decide in the plans for building a new house, in the selection of seeds, what durable assets should be sold or bought, in the buying and selling of animals such as ducks, chicken, pigs and vegetable, in family planning, and, the study of children. However, when it comes to the decision: who may continue school, daughter or son?, of the total of 20 women, seven say they want the son to continue, two the daughter, and eight have no preference; three women did not give a reply.

#### – Paddy cultivation

As mentioned before, rice production is the main crop and usually around 30 families have a shortage of rice during three to six months a year. This year more families suffer from rice shortage, because of the floods of the Houay Lo river in the rainy season.

Table 7.3 indicates that the land ownership pattern of the paddy fields and the land on the island is very unequal. There are a few large farmers who have 3.5 and more than two hectares of Na fields, and they have a surplus of rice, which is sold. Some of them grew a second rice crop with irrigation in the first dry season when the electric pump was functioning. They are satisfied with the result as they could sell the second crop rice and keep the first rice crop for home consumption. One woman told us that she took a loan two times: 100,000 for investment in the first crop and 100,000 for the second crop. The investment costs for the second crop are of course higher as she has to pay for water fees (10,000 kip for one hectare), some labour (30,000 kip), fertilizers (30,000 kip) and other inputs. Anyhow, she had 70,000 kip profit from selling one ton of rice. However, as we will see, there are also very poor families in the village.

**Table 7.3 Land holding sizes of rice fields and island land of 15 households in Bung San (in m<sup>2</sup>)**

Household no.	Size of paddy field	Size of island field
1	10,000	3,000
2	20,180	3,750
3	not known	not known
4	not known	not known
5	28,526	3,780
6	15,000	no land
7	36,900	372
8	800	30
9	6,400	800
10	4,800	108
11	3,000	2,000
12	10,000	3,200
13	not known	not known
14	8,400	3,045
15	10,000	3,780
16	11,600	3,045
17	not known	not known
18	not known	not known
19	800	3,780
20	15,000	3,500

It is noticeable, and in fact surprising as we did not come across this in the three previous patrilineal villages, that five women did not know the size of their land, even if it is their mother's land. As shown, there are two families with only 800 m<sup>2</sup> of paddy land, while one large farmer household has even 3.6 hectares. As shown in the table, there are also families without island land. The reason for that will be discussed in the next paragraphs.

#### **– Island land**

Besides rice, villagers grow such cash crops as tobacco and vegetables in the Done Pa Deck island,

which is located in the middle of the Mekong River at two kilometers from the village. According to the head of the village it was decided by the village administration that each family would receive a plot of five meter width, and as much as they liked in length, according to their capacity of labour power. This decision was made last year. That this decision was indeed implemented was reported to us by several women,

The land at the island was distributed to each villager. They received five metres width and could grow as far as they wanted. Her plot extends almost to Thailand. Be-

cause of the recent floods there is a lot of sand on the island, which has to be removed as it makes the soil infertile.

On the first of November they hire a big tractor to start the ploughing on the island for the tobacco crop. The tractor comes on ferry from Savannaketh. After the harvest they work day and night with the family to select, dry and to cut the leaves. She sells her tobacco (100,000 kip) to middle women who come to buy it.

But we also met a woman who has island land, but cannot use it as she is too poor to buy a boat (and motor). Her husband and she simply cannot reach the island, and it seems difficult to join others who have boats as they are too poor to contribute for the gasoline. She has only a small, rocky piece of vegetable land along the bank of the Mekong, where she can hardly grow anything. It seems that there are five to six families in the village which do not have boats. In this way they miss a crucial source of cash income.

Before last year the island land was rented out to Thai people for their agricultural production: legally the island belongs to Laos, but its location is nearer to the Thai bank. In the dry season, when the Mekong water is low, people can easily cross the river by walking to the other side and vice versa.

This year the women are quite enthusiastic to use the fertile island for growing spring onions, which is a newly introduced activity. In the past they cultivated the island only in the dry season, but now they have started to grow spring onions in the wet season too. Villagers of Bung San took the initiative to cross the Mekong River to learn the technique of wet season spring onion plantation from Thailand. The price of spring onions in the wet season is two to three times higher in Thakhek, and even four to five times higher in the Vientiane market compared with the prices in the dry season. So, it is a very good business to earn cash income. The result of this year is quite good. Most families made good money from last wet season production. According to the LWU leaders, there is one family who earned 40 000 baht by selling wet season spring

onions only. Women were able to explain in detail the technique of planting, as they do it themselves with the support of their husbands and children.

The only problem is the provision of seed. They could not purchase as much as they needed, and the price is too unstable, according to the demand. Some seeds are not of a reliable quality and yield less.

The villagers have a long tradition in tobacco growing and processing. It is the most important permanent cash crop.

### – **Division of labour**

In general we found that the work in paddy and vegetable cultivation is equally shared by women and men, although in tobacco cutting there is a higher workload for women and children. Of course there is the division that men plough and women do the weaving.

### – **Weaving**

How quickly findings of data collection can change, became clear after the second visit to the village of the WID study team. At that time none of the women had mentioned weaving as a source of income: there was no selling of woven products. However, shortly after that the Lao Women's Union encouraged selling in the market of Nongbok. The women followed the advice and they reported that sales are going well. They weave long pieces (eight meter) of cloth with the typical, Scottish-like squares in different shades and colours. The cloth is suitable for making all kinds of pillows and mattress covers. They can make three pieces a week; the selling price is very low: only 60 baht. From selling three pieces they have 100 baht profit. They start weaving after paddy transplanting in the months August, September, October and November. After the paddy harvest and the planting of the tobacco seedlings, they start weaving again in December.

## – Livestock

In Bung San the importance of having livestock to sustain the typical Lao farming system in its annual agrarian cycle and the negative effect of dry season irrigation was emphasised. Women explained that when the rice is growing in the fields in the wet season, the cattle is sent to the forest to graze there. The ecological balance and the fertility of the soil is based on this centuries long sustainable system that after the harvest of the monsoon rice, the cattle is released in the fields to eat the remains of the rice stalks. In this way a very natural manuring process takes place. Sometimes the droppings of the cattle are mixed with the remaining stalk waste, which gives an excellent compost. One of the most important consequences of the introduction of irrigation in the dry season is that this traditional seasonal, ecological farming system has to be abandoned. Women expressed their concern about their cattle ('where to put them'), and the unnatural condition that they have to take credit to buy fertilizers and all other chemicals against crop diseases in case they want to use their paddy land for the second crop in the dry season.

## – Wage labour

Because of the unequal land size pattern some farmers need wage labour, as they cannot manage with only family labour. One farmer said that his daughter went to Vientiane to earn the cash (30,000 kip) for paying wage labourers for transplanting, weeding and harvesting the rice crop<sup>51</sup>. It can be expected that wage labour will increase with the introduction of the second crop. Due to uneven land ownership, and the constraints the poor in the village face with raking loans, it can be anticipated that the socio-economic differences will increase considerably in the near future. This process of polarisation will increase the need for a more businesslike wage labour system than currently existing in villages in Laos. At present the employment of relatives and neighbours for wages who are in need of some cash has soft overtones of helping each other, and

reflects a human dimension of what has been referred to in anthropological studies as the 'moral economy' of the peasants.

## – Domestic labour

With the installation of electricity, the domestic labour of the women has been relieved by a rice mill. Prior to that they had to transport their rice to Nong Bok; now they deliver it in the village. The owner has invested 100,000 baht in his mill. With the protein rich residue product that remains after milling, he can feed a fast-growing number of pink coloured pigs.

There are two dug wells (with ground water problems) in the dry season (depth is 16 meter), but there are eleven hand pumps and a water lifting electric pumps. Hand pumps are used by several houses free of cost. People only pay for water if it is lifted by an electric pump. People connect PVC pipe lines to these pumps to irrigate the island land, which relieves them of fetching water with spray buckets. They invited a private technician from a Thai company to teach them how to find ground water and how to install a hand pump. Subsequently the villagers carried out the installation by themselves.

Of the 20 women, 15 use hand pump water for domestic use: two in combination with well and rain water in water pots. 17 said that the quality of the water was good, but three complained that the well water is 'cloudy' in the rainy season.

All women use firewood for cooking and a minority charcoal. One has an electric cooker for making hot water and cooking white rice. Firewood is fetched by carts. Only in one case was it carried by yoke.

It was observed while talking with the women that even small children are very self-reliant. Small girls come from school and buy a drink at the soft-drink shop: the mother is not disturbed. The small children also take off their school uniforms after coming home from school and redress in work clothes by themselves.

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<sup>51</sup> Our attention was drawn to the sad fact that also in Laos there is an increase of young women from rural areas working as prostitutes to earn money for their parents. Therefore, more alternative income generating activities for girls and young women should be supported to prevent this serious effect of modernisation of agriculture and related change in moral values and gender relations.

Sons and daughters immediately start working around the house after school time. In particular young girls do much domestic labour such as fetching water with two buckets on a yoke, helping with collecting firewood, irrigating vegetables with spray-buckets and looking after younger siblings. Small boys go fishing and bring the buffalo back in the evening while walking or sitting on the back of the animal. Some also fetch water. Teenage boys wash their own clothes on the concrete platform of the hand pump with brush and soap powder.

## 7.5 WOMEN AND INCOME

The main income is from selling tobacco and vegetables (spring onions) from the island. A few farmers can sell rice, although they will only do that when they have enough rice for the whole year to feed their family.

**Table 7.4 Overview of annual income according to different income sources (in kip)**

Household no.	Cropping*	Livestock	Wage labour	Relatives	Loans **	Total
1	200,000				100,000	200,000
2	600,000					600,000
3	30,000		3,000			33,000
4	2,000	56,000	14,500			72,500
5	87,000	29,000	6,000		200,000	122,000
6	303,000				200,000	333,000
7	290,000	2,000				292,000
8	116,000					116,000
9		5,000	16,000			21,000
10	23,200		11,600	116,000		150,800
11	30,000					30,000
12	280,000	15,000		300,000	200,000	595,000
13	270,000				100,000	270,000
14	300,000			300,000		600,000
15	20,000					20,000
16	400,000					400,000
17	200,000				250,000	200,000
18	100,000	5,000	10,000		150,000	115,000
19	200,000					200,000
20	200,000	60,000			200,000	260,000

\* Income from cropping is from paddy field and island production

\*\* Loans are not counted in the total income, but are mentioned here to give better insight into the total household finance.

Family 2, with an income of 600,000 kip, earns that money only with tobacco selling. They rent all the island land from other villagers who cannot or will not plant their land. The total earnings of family 12, of 280,000 kip are composed as follows: 30,000 kip vegetables, 170,000 kip rice and 80,000 kip tobacco. The woman of household 12, told us that she sells her second rice crop and keeps the first crop for home consumption. She takes out a loan two times: 100,000 kip for investment in inputs for the first crop, and another 100,000 kip for the second crop.

The livestock income comes mainly from selling ducks, chickens and fish. The highest amount of wage labour of family 4, is earned by the grown-up daughter, earning money with transplanting and harvesting rice. The relatives who sent 30,000 kip are daughters in Thailand. Eight out of the twenty families interviewed take loans for investment in rice and island production.

## **7.6 WOMEN AND DECISION MAKING IN IRRIGATION**

The findings of our study show that the women, and to a certain level also the men, were completely left out in the planning and design of the newly implemented irrigation scheme. For the irrigation officers it became urgent to involve the villagers in the phase they needed free labour and money to renovate the irrigation canal. In that late stage they asked the head of the village to organise a meeting. Three women of the 20 we interviewed participated in this first meeting.

None of the women, were aware that a technical survey was conducted, for planning and design of a new 300 ha irrigation scheme. There was a first meeting organised by DAFSO, in which the men of the village were informed. Before the request came to support the digging of the main irrigation canal, seven women had not heard anything on irrigation development. Twelve had heard before of the plans for the scheme in an informal way: only in two cases had their husband told them, in the other cases they heard from neighbours and other women.

Six out of 20 women attended the second village meeting where they got instructions from the head of

the village regarding the voluntary labour for the digging of the main irrigation canal. Some husbands informed their wives. Each family had to dig 30 cubic meter canal. Some people had to dig at night as they had no time during daytime. Only households who will use irrigation water for the second crop have to maintain the irrigation canal.

We asked about the contribution of women in the scheme and 17 women (3 did not reply) replied that they were involved in canal digging (respectively 2, 3, 4 and 5 days), in cooking food for 15 days and giving cash (respectively 1000, 2500, 3000 kip).

Six women out of 20 said that they want a Water Users Committee and four stated that they want to participate in the committee as members of the board. However, questions on their role in the operation and maintenance of the scheme were answered as 'this is for the men'.

Questions were asked on the impact, or the expected impact (as only 12 ha has been irrigated one season), of the irrigation scheme. All women expressed that they expect that living conditions will improve. They expect more income, and they said that water use will be easier and they will have more water for vegetable gardening near the house as they can tap it from the canal. One very poor woman told us,

She lives in a small temporary hut. While talking with her we observe two teenage girls working hard to irrigate the small vegetable garden around the hut. One of them is preparing the seedbeds to grow beans and other vegetables. Mother is 57 and there are nine members in the family. She gave birth to 12 children but the first five died. She states that before 1975 there were no hospitals for safe deliveries. She has four grown-up sons who will send occasionally 1000, 2000 kip per month. She has only a small paddy field of 50 m wide near the swamp. Sometimes she has 5 months, sometimes 7 months rice from the field. She also grows vegetables in her rice field. She has helped to dig the canal. They

got land on the island but she is too poor to buy a boat (7000 baht and the engine another 7000 baht). She inherited the small plot of land around her house from her old mother. She states, 'if this irrigation canal had been here before, we would not have been so poor.' She used the water of the canal for growing vegetables around the house and could save money for buying a male cow in June (she saved 3100 baht – 100,000 kip). She preferred to buy a buffalo, but that was too expensive: 200,000 kip. And what about taking a loan? 'Poor women are afraid to take loan as they are not sure whether they can pay it back'.



Girl selecting seeds for vegetable garden

It is a positive unplanned side-effect that this poor family was able to improve its economic condition by using the water directly around the house.

About the increase of the workload, 18 women confirmed that the workload had already increased, or would increase, because of the scheme. The following replies were given on the expected impact: can grow more rice, vegetables, jam beans, cucumber, tobacco, maize in the dry season. One women stated that the workload had gone up because of the canal digging and maintenance. Many women also expressed that they expect that their husbands will get more work, as more care has to be given to the cattle. This point has been discussed above in the livestock section.

Women were not afraid that the weaving, which they do mostly in the dry season, will become less now they have just discovered the market and know how to sell their woven cloth. They also do not think that the tobacco and vegetable growing in the island will be affected by the second crop labour. They mentioned a calendar in which the second crop planting can just be arranged in between the tobacco growing.<sup>52</sup>

## 7.7 CONCLUSION AND DREAMS

Our study shows that there are many reasons for members of farm households not to use irrigation water. The first one is that they simply have enough rice from the wet season, and enough cash income from tobacco and spring onions from land of Done Pa Deck island. The use of a second rice crop is beyond their labour capacity. Many women are not willing to distort the farm system cycle of manuring the land by the cattle in the dry season. Moreover, women expressed that they are afraid to take loans for investment in inputs, as poverty prevents them from repaying the debt.

The reasons for using irrigation in the dry season were that in this way for a number of families the

<sup>52</sup> They gave the following agricultural calendar:

September: preparation of tobacco seedlings; October: harvesting of monsoon rice; November: 3–10 planting tobacco; 10–18 two times irrigation; 18–25 fertilizing; December: seedlings preparation (one day); weeding of tobacco if necessary. January: transplanting of rice; end of March: harvesting of tobacco leaves; end of April: harvesting of rice; June: preparation of seedlings; July: transplanting of rice.

wet-season rice harvest lost by floods could be compensated. Some families showed a more entrepreneurial attitude and want to earn cash with the second crop rice, as the first crop is used for home consumption. They do not feel constraints of taking a loan for investment in the second rice crop and have sufficient labour power in the family.

In the section on decision making in irrigation it is revealed that irrigation schemes are planned and designed without knowledge and consultation of the people and in particular the women. Nevertheless, the women are the main contributors to the cash income of the household and it will be the women who are in main responsible for paying water fees and making investments, as can be expected in future.

It shows the urgent need for gender studies from the first start of a scheme and the incorporation of women in the decision making.

When water will be available some women stated that they will produce a second crop of rice and vegetables to increase their cash income. The women are very interested in vegetable growing and added that they dream to have water available in the village in all seasons to avoid the often costly and dangerous travelling to the island.

The findings of our study show that the estimations of economists on rice production of the second crop do not reflect reality. People do not use irrigation water for a second crop as the first one is sufficient for their home consumption, they earn enough cash with island vegetable growing and they do not want to disturb their farm/cattle system, based on manuring the fields in the dry season. Lack of labour power is also important for not using irrigation water.

Poor villagers should be assisted with a revolving fund to buy boats to grow vegetables in their allotted land on the island.



## 8. FINDINGS, RECOMMENDATIONS AND ACTION TO STRENGTHEN WOMEN IN PADDY FIELDS AND OFFICES

*Dominant champs et repas, le riz envahit en effet vocabulaire et croyances; les contraintes de l'irrigation n'auraient-elles pas favorisé l'esprit d'association.*  
(Pierre Gourou, Riz et Civilisation, Bourdet)

### 8.1 COMPARATIVE PERSPECTIVE

In this last chapter we would like to present some crucial findings of the four village studies in a more comparative perspective, in order to provide a better overview of the data collected. As the samples in the study were very small, and fluctuated per location, general conclusions cannot be drawn. Nevertheless, in view of the immense lack of data regarding Lao village life, and Lao rural women of various ethnic groups, we think it is useful to present these overviews and to let the figures speak for themselves. They should be considered as broad indicators of the prevailing conditions. As such, they can contribute to the understanding of our recommendations on how to strengthen women in irrigation, irrigated agriculture and development.

Deng). The size of the family fluctuates between eight members in the small Hmong hamlet to six members in the Thai Deng community. The total population in the 71 households investigated was 491, of which 265 women and girls (54%). This reveals the overall reported trend of very high sex ratios and a surplus of women in the total Lao population as a consequence of the relatively high status of Lao women, but also of war conditions.

Subsistence cultivation of rice, vegetables and other crops is the main source of livelihood of all the 71 families we interviewed. Therefore, the ownership of paddy land (Na) or access to slash-and-burn land in the uplands (Hai) is the most crucial resource for survival. The following overview indicates the average

**Table 8.1 Overview of socio-demographic data of the four village studies**

Village	Total pop.	Female	H.h. size	Average no. of children	Age respondent	Age born	Children died	Children
Vieng Xai	125	65 (20)	6.2	7	44.5	47	141	26 (18%)
Dong Dan	74	45 (9)	8.2	7.7	42	46	70	19 (27%)
Nong Jama	148	77 (22)	6.7	6.2	38	45	136	48 (35%)
Bung San	144	78 (20)	7.2	8.3	44.6	47.6	150	47 (31%)

The following overview shows that on average women in the villages have given birth to six to eight children, which shows the important motherhood role women fulfil. Our four studies reveal that Hmong women have the highest birth rates, followed in decreasing order by the matrilineal Thai Vang community, the Thai Deng and the Khamus. Child mortality is very high, ranging between 35% (Khamus) and 18% (Thai

land size of the households. Two components determine the size of the land: the size of the family in villages where land has been distributed in the process of decollectivisation of land; and in other places the tradition of matrilineal, or patrilineal, customary rights of inheritance of land, as discussed in detail in the case-studies.

**Table 8.2 Overview of land size Na and Hai (Island) according to number of households (in hectare categories)**

Name of village	Land size paddy field					Land size Hai/Island land			
	no land	up to 0.5	0.5 to 1	1 to 2	more 2	up to 0.1	0.1 to 5	0.5 to 1	more than 1
Vieng Xai		4	11	5	–	7****	1	2	
Dong Dan	1	4	3	1	–	1	4	4	–
Nong Jama*	2	8	3	6	–	16**	3	–	–
Bung San***		4	2	6	3	4	10		

\* In Nong Jama, of 22 women 3 said they did not know the size of the Na field and 2 that of the Hai field.

\*\* One family stated that they have no Hai

\*\*\* Five women stated not to know exactly the Na and island land size. One woman has no island land.

\*\*\*\* Ten families stated not to have Hai fields

An overall glance shows that in the matrilineal village of Bung San the households have larger plots of Na (more than two hectares) and Island land than in the other villages. Landless households hardly exist in Laos: of the total of 71 households, only three families stated to have no land, which means no Na land, but that does not imply that they have no access to Hai. Twenty households have only a small plot of Na, up to half an hectare; 19 households possess a land holding of a half to one hectare; 18 households are somewhat better off and cultivate one to two hectares of land; three households own more than two hectares of paddy land. The reliability of the figures on the size of Hai land

is questionable, as it is the government's policy to stop Hai cultivation for 'ecological' reasons. Nevertheless, the importance of Hai, and island fields in the Mekong, or fields at the bank of rivers, is revealed in the table.

The income of households is often seasonal and irregular; therefore the following table on annual income in cash in the four villages should be regarded as a very rough indication. The cash income was: USD 375 per year per household in the highest income village, Vieng Xai; USD 320 in the Mekong village of Bung San; USD 260 in the small Hmong village; and USD 150 in the Khamu village Nong Ja Ma.

**Table 8.3 Overview of annual household income in cash in four villages**

Name of village	No. of households	Average income	Range
1. Vieng Xai (Lao Lum) Vientiane Province	20	270,350	0 to 600,000
2. Dong Dan (Hmong) Xieng Khouang	9	186,100 (209,500)	0 – 420,000
3. Nong Jama (Khamu) Xieng Khouang	22	108,090	0 – 400,000
4. Bung San (Lao Lum) Khammouan Province	20	231,515	21,000 – 600,000

The value of rice, vegetables and other crops used for home consumption is not included in the above figures. Therefore, the conclusion cannot be drawn that Vieng Xai village is the richest in comparison with the other three villages as the cash income is the highest (270,350 kip, around USD 375 per year). The rice shortage in Vieng Xai is much higher than in Bung San. At least 52 out of 97 families in Bung San have enough rice for the whole year, whereas under normal conditions this is only 10% in Vieng Xai. Therefore, our study shows that the overall picture is that Bung San is better off in economic terms in comparison with Vieng Xai, where most of the money has to be invested to buy rice to eat. The admirable Hmongs in Dong Dan village rank third in income position (186,100 kip, around USD 260), but this meagre income has to be assessed in the perspective of a serious lack of rice for the majority of the families. Two families are somewhat better off, as they receive 210,000 kip (around USD 300) from relatives in the United States. One household has a regular salary from army service. The Khamu village of Nong Jama is by far the poorest of the four villages, with a substantial rice shortage and an annual household cash income of 108,090 kip (around USD 150). Almost no cash opportunities exist for these people, who have already been suffering so deeply for such a long time under the horrible consequences of the war bombardments.

## 8.2 ROLES OF FARM WOMEN IN IRRIGATED AGRICULTURE AND IRRIGATION DEVELOPMENT

Our four studies show the crucial role women play in irrigated agriculture and irrigation development. Let us briefly mention some of the main findings to illustrate this:

- Men do the ploughing, although for instance in Nong Ja Ma the women sometimes do it too, but in all other operations women, and in particular grown-up girls, do the greater share of agricultural production (including vegetable growing, chicken raising, foraging, transport and post-harvest operations). In the matrilineal and matrilineal village Bung San the majority of women are the owners of the land and the

farmhouse and other means of production such as tractors, motorboats, etc. Even in our three patrilineal study villages a substantial number of the women own the land themselves, or together with her husband. Women are not only the owners but also the main decision makers in agricultural production in Bung San. In the patrilineal villages decisions are mostly taken by husband and wife.

- The social structure may offer men the position of authority, but the women's socio-economic power often counterbalances socially sanctioned male domination. Therefore, we want to repeat what we have mentioned already in the beginning of this book that we found that the socio-economic power base springs from a collective spirit among women and from the options available for them for economic autonomy, both based on women's identity. Being a woman in Laos, also in a patriarchal context, implies a potential for economic autonomy and self-reliance, as crucial economic sectors and activities are monopolised by women sanctioned by the division of labour. Therefore women are prominent and have more scope in earning cash in Lao society, which crosses through cultural patterns of matrilineal/matrilocal or patrilineal/patrilineal communities. In Vieng Xai the investment in irrigation comes for the major part from the income earned by the mothers and daughters with weaving. The little cash in the Hmong and Khamu households comes from the sale of vegetable, forest products and grass roof parts by the women. We even came across a case, the model-village Muang Kham in Xieng Khouang, in which women saved money to invest in an irrigation reservoir and canals.

**This means that irrigation investment, or water fees, are mainly paid by the productive labour of women and grown-up girls.** It was found that they are the main investors in irrigation dams, reservoirs and canals, and they will be the main persons to pay future water fees, or to repay substantial loans which households have to take to ensure the supply of irrigation water.

- Moreover, women have social skills in influencing men in decision making and can motivate them to manage matters in a certain way. Moreover, they

can mobilize other women. This proves the excellent organisational capacity of the Lao Women's Union. LWU women have mobilised and motivated men to support and assist in the successful development of irrigation schemes and related integrated rural activities, as our visit to the model Khamu village Muang Kham revealed.

– In all villages women have contributed with labour, money and cooking during the construction of the schemes. However, it should be documented with respect that in particular grown-up daughters have a large share in the actual physical labour that is necessary for digging canals. The Asian cultural value pattern in which respect for older people is shown by the younger generation taking over heavy work from them, is very much part of Lao life-style. This has its impact on the age group of youngsters (16–25 years), when voluntary labour contributions are required for construction and maintenance. We had interviews with village girls of 18 years at the irrigation canal side in Xieng Khouang, where a voluntary labour campaign for construction was going on. The girls were busy in digging the earth and fixing the iron bars for the cement construction of the weir. In all four villages, women were highly motivated to participate in a direct and indirect way in the construction, operation and maintenance of irrigation schemes. As mothers and women they feel very responsible for the daily food provision and foraging of the family, and irrigation is a means to ensure this.

– Because of the daily domestic water use (bathing, washing clothes, irrigating small plots around the house) it is self-evident that women and girls are highly interested in scheme planning, design and maintenance (see the case of the woman in Bung San). We came across several expensive irrigation schemes where women had to pay huge loans for the irrigation construction, but where they complained that there were no provisions planned for domestic water use. In the long run this neglect of the domestic workload of women will have a negative impact on the success of the scheme, as lack of time of women to look after cultivation and maintenance will reduce the output.

– Women are in general good at financial man-

agement and accounting because of their social and economic experience in managing the household finances and the local economy: they are the sellers, buyers, traders, middle-women and entrepreneurs. Our studies show that decisions on food and daily expenses are exclusively the domain of the women. Out of 70 women interviewed, 67 stated that they keep the household money. We asked 12 questions about decision making in the family and public domain. In Bung San the decision making of women is prominent in every respect.: agricultural production, plans for building a house, selection of seeds, buying/selling of durable assets, buying/selling of animals (ducks, chicken, vegetables, cattle, pigs), family planning, study of children. Even in the patrilinear Hmong family the first wife keeps the money and takes decisions with her husband. The second wife (in case of polygyny) often has her own slash-and-burn field. However, she has to consult her husband and the first wife when she wants to spend her own earned money. There is a strong Lao value that 'who earns the money, keeps it' (see the case in Vieng Xai of the daughter who gives her father pocket money to buy cigarettes).

These aspects indicate that the women's role in farm production and water management is a prominent one. Therefore, women should have equal opportunity to have access to, and control over, such an important collective asset as an irrigation scheme. However, although women give labour, money, support and motivation to irrigation development, the overwhelming finding was that they are left out, and not supposed to participate in the management and decision making of recently established water users organizations. Their role is perceived as supporting and followers of men. The notion of equal opportunities by equal sharing of responsibility is lacking. There is a strong segregation of the sexes among water users organizations and Lao Women's Union lines. With the institutional formalisation of government supported schemes we pointed to the realistic danger that women lose control over and access to 'their' land and consequently over the irrigation on their land, leading to a process of 'disempowerment' of women.

This urges for action and replies on the main question of this book: 'how to strengthen women's

roles in paddy field and offices in irrigation development?" In the foregoing we have already emphasized that the women staff members in the offices can contribute very much to the strengthening of the women in the villages, but that the office women have first to be equipped for their new and challenging roles in the irrigation offices. Firstly we want to focus on how to strengthen the women in the irrigation offices. After that we will divert our attention to the ways and means to strengthen the women in the villages.

## **8.3 HOW TO STRENGTHEN WOMEN IN THE IRRIGATION OFFICES**

### **8.3.1 Gender studies**

Our gender studies have proved to be very useful in collecting comprehensive data on the traditional and present status and economic roles of women of different ethnic and age groups, and the problems, needs and interests the village women face with a focus on irrigation. On that basis we were able in our workshops to discuss solutions, or reduction of problems with the responsible authorities and representatives. Moreover, they have greatly contributed in drawing the attention of the responsible authorities to the problems of the villages concerned and have initiated concrete steps to incorporate the villages in available programmes and activities. The studies were intended to generate awareness of the gender concept in the Department of Irrigation, and of gender specific studies as a crucial mechanism in a participatory irrigation development approach.

An important aim of the studies was a 'learning by doing' process in which the investigators and the women (men) of the village participated. Investigators were women from the Department of Irrigation of Vientiane, women working in the provincial or district offices of Agriculture and Forestry in three provinces, and the women from the provincial and district Lao Women's Union. Therefore each field study was undertaken by a working team set up in each province.

The studies at large have offered an opportunity for women working in PAFSO/DAFSO offices to visit the field and to investigate the role of women in irrigation development. In view of these findings we

have recommended the support of gender studies as part of the routine surveys at the start of the implementation or rehabilitation or construction of each scheme. Participatory gender studies will contribute to the development of a gender-based planning and design of irrigation schemes, community participation and the planning of an integrated rural development approach.

However, most important is that participatory gender studies might offer the few women working at the provincial level a strong motivation and opportunities to open up new horizons of innovative work in which they can use their skills and talents. Qualified women irrigation engineers should not sit in the office serving ovaltine or tea and typing. Therefore, male, but also female, perceptions which determine now the nature of their work should be changed by raising gender awareness. The male attitude is the more unfortunate as in particular the revolutionary past of the country has made it clear that women were able to do all the heavy and dangerous work the men did, or would do otherwise. Moreover, the dominant matrilineal Lao culture supports a strong economic position of rural women. It would be expected that these two crucial Lao circumstances should have advanced more gender awareness of in particular educated male officers that women should be entitled to receiving equal opportunities in developing the country and to using their capacities and qualifications. Unfortunately, this kind of attitude is often lacking, and female personnel at the provincial level never had an opportunity to visit irrigation schemes in the field. But, as said before, scarcity of transport and lack of a budget for travelling also play a role. We felt that our effort to strengthen the women in the irrigation offices to be able to conduct gender studies has a promising potential for a new approach which can be highly supportive for the new community participation policy.

### **8.3.2 Women in development**

During our talks with the Lao Women's Union at the provincial level it was expressed that they felt that there is a 'missing link' in the Department of Irrigation and similar government departments. It was suggested to appoint one woman specialised in

Woman and Development issues who can communicate and coordinate with the Women and Development representative of the Lao Women's Union. This will intensify the communication between the two organisations.

Therefore we suggested, in order to strengthen the women working in the irrigation offices, that at the central level and in each province one woman will be trained in participatory gender studies and Women in Development.

Their work will encompass the responsibility to conduct participatory gender studies in each scheme which will be taken up, and work in close cooperation with the Lao Women's Union and the village women concerned. On the basis of the findings of the studies the needs and interests of women in the irrigation scheme (in particular in relation to water for domestic use, such as bathing and washing) can be identified, and communicated to the design and survey department. In this way the incorporation of gender planning and design of the scheme can be promoted. The next step will be to identify in what way women can be assisted in an integrated rural approach. Meetings with responsible authorities can be organized by the 'WID Irrigation' staff member to communicate findings of gender studies to make common efforts to draw up plans for improvements. One of the main responsibilities will also be to promote the representation of women in Water Users Organisations and to monitor the impact of the scheme on women's roles and work.

Promotion of intersectoral cooperation between the departments of the Agricultural and Forestry offices in planning and budget in each scheme that will be taken up according to the annual irrigation planning, will be another important task. Communication with NGOs and other development agencies and organisations to be informed on funding and implementation of programmes will facilitate the transfer of WID programmes to irrigation scheme locations. We realise that a lot of constraints have to be solved before our institutional suggestions can be realised in the future.

### 8.3.3 Ways to increase female personnel

As already mentioned in Chapter 3, there are

very few female staff members in the Irrigation Offices. Why it is necessary to appoint more women?

The new community participation approach in irrigation, and the gender/WID approach proposed above, will require more female staff in the future. Female staff may contribute to the success of irrigation schemes by involving and incorporating women (and girls) in the planning, construction, maintenance and operation of irrigation systems from the beginning. If they promote a Women in Development approach in cooperation with other organisations projects have more chances to become sustainable.

A more fundamental point is that the government line departments need to improve the quality of its staff. It can do this by attracting a larger part of the reservoir of capable women who are not employed yet, or do downgraded work. The assumption is that there are just as many potentially capable women as there are capable men, and in view of the fact that a larger part of the capable men are already employed than of the capable women, it seems fair to provide more suitable jobs to those women who are capable and interested to fill those jobs (Pieper 1994).

In this context it can be considered to introduce a supporting recruitment personnel policy at all levels in which priority is given to women in case vacancies have to be filled, in particular in the higher ranks. In many countries in the world a policy of 'positive discrimination' is followed in Government institutions. The policy implies that if a man and a woman apply on a vacancy, and they are equally qualified, priority is given to the woman. In principle this policy is intended to have a temporary character, until the number of male and female employees is more equal. Although in principle men and women should have equal opportunities in obtaining employment, the reality is that women are proportionally under-represented in many formal organisations. The reasons are well-known: often girls get lower priority in higher education; and in case an equally qualified man and woman apply for a job, the man will be appointed as it is assumed that the woman will marry and get babies and therefore will be absent for a long time, will not be able to concentrate on her work and will not be able to visit the field. It

is recommended to introduce this supportive policy in the irrigation offices, in particular in the ten provinces where no women at all are employed in irrigation.

Tad Tong Irrigation School is the institution where selected students (mainly by the Department of Education) are educated as irrigation engineers. At the moment 4 per cent of the total students studying at Tad Tong Irrigation School, are girls. It will be very important to promote the increase in intake target of female students. As the selection of students is mainly the responsibility of the Ministry of Education, meetings have to be organized to discuss the procedures to achieve a higher intake of girls at TTIS.

However, a pre-condition will be that the accommodation for women in TTIS should be enlarged and improved. At present there is only one room in the dormitory available for girls. New space has to be created. It is also recommended to offer the women students a minimum of privacy and comfort by constructing in-door bathrooms and to allocate latrines to women. What will be more crucial is to change the male orientation in the approach and curriculum of the school. Teachers, male and female students should be more aware of the role of rural women in various communities in irrigation development. Therefore, teaching material is in preparation to include gender and Women in Development aspects in the regular curriculum. To raise enthusiasm for the presentation of the new teaching material female (male) teachers of Tad Tong Irrigation School will be trained. Moreover, public relations can be improved by visiting and informing secondary school boards and the students about the study for irrigation engineer.

#### **8.3.4 Nursery schools**

The boosting of women's knowledge, capabilities and practical experience is very necessary. Incentives are lacking to encourage the women to use and develop their technical knowledge, and promotion is very difficult. A trend is identified that the few women who have joined the irrigation offices tend to leave within five years. This is understandable in particular when women have to look after husband and children. Therefore, the establishment of nursery schools for

small children in various irrigation offices will highly support the staff members, who are almost all young. With the privatisation policy also schools, nursery schools and kindergartens have been encouraged to privatise. Government subsidised units have been altered into much more costly private schools. This process takes place at a rapid rate. Restoring the old 'kindergarten' system as is still in existence in Phonsavanh could be considered.

Other practical action that can be taken, and which will strengthen women to participate in the irrigation sector will be to support facilities for better guesthouses and a bicycle at the district level. The Lao Women's Union has created this kind of facilities to enable women from other places to stay overnight.

### **8.4. HOW TO STRENGTHEN WOMEN IN THE VILLAGES AND RICE FIELDS?**

#### **8.4.1 Policy level**

As we have seen in the above, on the one hand there are the large pump irrigation schemes in the alluvial river plains along the Mekong and its tributaries, and on the other hand the small gravity schemes in the uplands. In the pump schemes along the Mekong, the women state that they have enough rice from the rainy season and a good income from vegetable growing on the banks of the river, or on the islands in the Mekong. In the uplands, women face a scarcity of rice, and the obvious needs of women are additional irrigation water in the rainy season in order to increase rice production. It was earlier found that, in case of technical and/or organisational problems with the pump irrigation, people do not mind that they cannot use the irrigation water in the dry season for a second crop, as food and income is ensured. Their workload is already committed and lack of time does not encourage them to look after a second crop. However, we also met women stating that they would have more workload but do not mind as they have more income. However, these women did not possess a vegetable garden along the river bank but tried to grow vegetables in the command area of the irrigation scheme in the dry season.

In the uplands the situation is the opposite. Hmong, Khamu and upland Lao Lum (Thai Deng, Thai Dam) women are desperately in need of irrigation schemes. They have substantially contributed with labour and services to constructing planned canals. Their need is to ensure basic food for their families, which can be supported with irrigation water. This will release them from the duty to spend many hours daily foraging, or to walk long distances to sell their meagre forest products in the market to buy their own food. This refers to the areas outside the range of the Mekong and other river lowlands.

Therefore we recommend that high priority in investment and assistance be given to upgrading traditional schemes of communities living in the uplands or in mountainous valleys, as in particular women bear most of the burden to compensate rice shortage by searching for food and earning cash.

Our village studies indicate that if the above recommendation is implemented, it will strengthen in particular women of ethnic communities of Lao Sung, Lao Thung and upland Lao Lum as they (and their family members) are the most in need of irrigation facilities, as they face a serious rice shortage. Moreover, the above recommendation will be supportive to implementing the national policy to reduce Hai cultivation. As long as irrigation water is not ensured, women living in the uplands will be compelled to compensate rice shortage with slash-and-burn rice production.

Our studies showed that in the villages Vieng Xai and Ban Nong Jama men and women have been very motivated, and have tried with all scarce means available, to construct their own dams and irrigation canals. In particular in Vieng Xai village women have woven and sold Lao skirts at their maximum capacity to earn the money necessary to invest in the new irrigation scheme. Unfortunately, in both cases the forces of nature were stronger than their dams and they faced immense losses when the system was destroyed by rains and heavy flash flows of the river: the consequence was a rice shortage of six to nine months. The burden of the failure of traditional schemes falls for a large part on the shoulders of the women. As mothers, women feel very responsible for the daily provision of food for their

children and family; therefore they search for food in the forest to eat and to sell. If irrigation fails, the women are compelled to compensate any shortages with Hai rice fields, as we found in Dong Dan and to a certain extent in Vieng Xai and Nong Jama. This means an enormous increase in workload for the women. Moreover, the division of labour gives the women in all villages more scope to earn cash in comparison with the men (vegetable growing and selling, chicken and pig raising, embroidery work, making grass-roof covers, baskets for sticky rice, selling of forest products).

Opposite to the strong need and interest in these three upland villages, we found that in Bung San village, where a river lift electric pump irrigation scheme has been recently installed (November 1993), that 52 out of 97 households were not motivated to use the irrigation water in the dry season. They simply have already enough rice from the wet season and enough cash income from tobacco and spring onions from land of Done Pa Deck island. The use of a second rice crop is beyond their labour capacity. Many women are not willing to distort the farming system cycle of manuring the land by the cattle in the dry season. Moreover, women expressed that they are afraid to take loans for investment in inputs, as poverty prevents them from repaying the debt.

Of the 97 families 45 (in normal years without floods 30) are interested in growing a second rice crop this year. The reasons for using irrigation in the dry season were that a number of families could compensate their wet-season loss due to floods with a dry season harvest. Some families showed a more entrepreneurial attitude and wanted to earn cash with the second rice crop, as the first crop is used for home consumption. They are not afraid of taking a loan for investment in the second rice crop and have sufficient labour power in the family. The users can be characterised as the large, more well-to-do households with grown up children. An unplanned effect of the irrigation scheme is that it does not only serve the richer farmers in the village; we came across a very poor family which used the water in the canal for growing vegetables around the house, which had helped them very much.

It is often not understood why members of farm



households do not use irrigation water. Our findings revealed again that the engineering tradition in irrigation, in which farmers and water users are perceived as instruments in achieving the technical objectives of the scheme, does not make sense. We have the same concern for macro-economists basing their estimations of output of crops on theoretical conceptions without awareness why members of farm families do not grow crops.

On the basis of the above findings we want to express our apprehensions regarding a development strategy in which it is planned that the Mekong areas produce maximum rice by the implementation of irrigation, to compensate the shortage of other remote parts in the country. This policy seems even more questionable in view of the lacking infrastructure (roads) and the lack of purchasing power in the rice shortage areas (see the income figures of Vieng Xai, Dong Dan and Nong Jama village). The expectation that the purchasing power in the uplands can be enhanced in the coming years to enable them to buy rice, seems a far away ideal.

To put our findings in a wider context we want to refer to the problems in Vientiane prefecture as expressed in February/March 1994 by various officials and farmers. The price of rice had decreased in these months as a result of severe overproduction. Farmers stated to us that it was hardly worthwhile to grow paddy in the dry season. Another demotivating aspect to grow a second rice crop mentioned by farm women was that water/electricity fees had to be paid in 1994, for the first time in cash, instead of rice as was the custom. As the loss was increasing for the electricity companies, estimating their fares in kind, they changed their policy. However, the farmers families have to sell their rice at a low price to pay their water/electricity fees.

A second development option is of course to put all efforts in a quick and well-planned policy to pursue diversification of second crops. It is doubtful whether this will be successful as people have alternative island or vegetable land which offers them sufficient cash income. In fact we found in Bung San that people have initiated new vegetables themselves for the wet season. In double cropping they concentrate on the island, not

on their paddy field as they want to use these for grazing and manuring of the fields. The scope for diversification has to be investigated from this perspective. Moreover, diversification will not solve the national problem of rice-deficits in many remote districts. The women toiling and mowing in those areas are not at all supported by diversification of crops in the better-off areas in the lowlands of big rivers. Therefore this second option seems to have no advantage from the women's point of view.

The third development strategy is to increase the area of paddy land in the upland valleys. The feasibility of this option depends of the location. We found scope in Bolikamxai (see WID interim report Schenk-Sandbergen January/March 1994a) but in the two upland villages we studied it is impossible to extend the area of paddy land by the physical geographical conditions, and in the third village (Nong Jama) the risk of unexploded bombs prevents people from doing so.

#### **8.4.2 Women in Water Users Organisations**

Our studies show that in the local traditional schemes men and women participate on an equal footing in the planning, construction and maintenance of irrigation schemes. However, as soon as the irrigation schemes become formalised with more complex technology and institutionalised organisations such as Water Users Groups and Committees, women become invisible and are left out, in particular in the management and decision making roles. Only in SIRAP (5 out of 9 schemes) have women recently been elected in the Water Users Groups and Committees after workshops and training courses, aiming to raise the gender awareness of the management and implementors of the scheme. There are several reasons for exclusion of women in the decision making roles in WUO, of which the most visible one is the fact that most irrigation professionals are male: only 4 % of the employees are women. Other reasons are the class and gender biased views on the division of labour between the sexes: irrigation is perceived as a male job and too heavy and dangerous for women. Women should have suitable jobs in the offices. In line with this way of thinking the irrigation officials, and often NGO representatives, approach 'the farmer' as the male head of the house-

hold, being the person responsible for irrigation and irrigated agriculture. He is consulted and addressed as it is assumed that he controls the household resources and labour and takes the decisions on behalf of his 'dependent family'. Even in attempts to address the 'household' or 'farmer family', women are considered of marginal significance to the functioning of the irrigation scheme as the perception is that their first responsibility is to be mother and housewife.

These assumptions are mainly determined by gender ideological notions, but are far from reality, as our four village case studies have shown. Therefore representation of women in Water Users Groups and in Water Users Committee boards should be encouraged. At least one young (unmarried) woman should be elected in the WUO, as observations have shown that grown-up girls before marriage do most of the outdoor agricultural and domestic labour, and are more involved in the actual voluntary labour contribution during construction of canals and maintenance than their mothers. Moreover, it was found that LWU members at village level are often married women in the age group 25 to 55 years. A young woman can look after the interests and needs regarding irrigation matters of her age group (16–25 years).

In a formal way the participation of women can be supported by the incorporation of guidelines on women's participation in the Water Users Organisations and Water Committee Board's in the official Regulations and Decrees of the Ministry of Agriculture regarding the aims, role and duties of water users organisations. But that will not be very effective if it is not accompanied by a good strategy to raise awareness on the roles and capacities of women. These strategies must result in notions that women have an equal position in the new institutional arrangements as now occupied by males.

We strongly believe that our 'Women in Development and gender studies approach' can contribute to the increase in gender awareness of staff members in the irrigation offices, but no less among the villagers themselves.

The 'Women in Development and gender stud-

ies approach' will be a new concept in irrigation development in Laos (and other countries as well). The policy of the Party and Government on women's role promotion is well-known for more than 20 years, and the country's constitution, enacted in August 1991, ensures equal rights for both sexes in the political, economic, cultural and social fields and in family affairs. Despite this equal opportunities for men and women in certain public sectors are still a rather theoretical concept, and used to be considered as the responsibility of the Lao Women's Union only. It is hoped that the involvement of women in WUOs will contribute in the long term to enhance the awareness on the women's role in irrigation among males as well as females. Women will be strengthened in their feeling of ownership of the scheme, and become more confident to raise gender issues when they can communicate with a woman committee member. Moreover, it widens the opportunities for women to have access to training and learning opportunities.

### **8.4.3 Integrated rural development.**

The case-study of the Ban Kung Muang model village reveals that successful implementation of community managed irrigation can be initiated in the context of an integrated rural development approach. Women saved money for the investment in a reservoir and irrigation canal out of the interest they received from the rice bank. Our findings in the village revealed that a key factor for the success was the active village woman leader (LWU), who has secondary school education, and who was able to motivate and stimulate her villagers to cooperate in the whole integrated development plan. The policy of the LWU is not to ask for more funds than they require to secure the real use of the funds.

Our findings endorse partly the already accepted policy of the Ministry of Agriculture and Forestry to support an integrated agricultural development approach in which all sections of the Ministry including irrigation at all levels have to cooperate and coordinate their activities. Integration of plans of the agricultural, livestock, forestry and irrigation sections will highly contribute to more successful development efforts.

In the village studies we have already mentioned which role the other sections of PAFSO/DAFSO can play to assist in solving problems the women have indicated. In particular the service of PAFSO in Xieng Khouang was requested, as livelihood options for Hmong and Khamu villagers become very limited with a policy of no Hai, no opium and no wood cutting. These were the three pillars of their subsistence: no alternative is offered to them. People are told to grow sugar cane and banana trees as a more permanent Hai, but nobody knows how to do it and where to get the seeds. Improvement of Hai production and assistance in preserving the areas used for it will be required. Traditional practices have to be studied as they have often achieved long-term stability by a system of alternate cropping on the same hill. Farm women training, and training of (female) agricultural extension workers is urgently needed.

Our studies also show that an intensification and close coordination with the Lao Women's Union and the line departments at all levels will be very fruitful, as they have more trained Lao staff in integrated village development than any other institution or government office. Further LWU has an ability to reach ethnic communities in remote villages. Even in the small Hmong hamlet a representative of the Lao Women's Union was actively functioning. The LWU in Xieng Khouang and Khammuan has a good knowledge of and wide experience in the existing programmes of Unicef, NGOs and other development organisations. During our workshops in the provinces it was revealed that these programmes and projects are unknown at the PAFSO/DAFSO level because of lack of communication.

Moreover, LWU might initiate income-earning activities outside the mandate of DAFSO/PAFSO such as weaving, handicrafts, rice bank, revolving funds, sales outlets etc. The cooperation can take concrete shape and be consolidated through gender studies. Our experience with our 'participatory gender studies' and the related workshops is that they form an excellent tool as a 'meeting-point' to intensify the intersectoral cooperation at PAFSO/DAFSO, and between the central, provincial and district level irrigation offices and

LWU at the various administrative levels. In each team of investigators both organisations participated in the learning by doing process.

However, now already a major constraint in addressing women's needs and interest relates to the limited absorptive capacity of the Lao Women's Union. In a UNICEF report it is clearly formulated :

As the LWU gains increased reputation as being a credible partner for programme delivery, more and more donor agencies now demand the organisation's involvement in support of social development programmes thereby further stretching its limited staff resources. **The solution is for government to cease its present practice of assigning all women-related concerns to only the LWU but to ensure that these are mainstreamed into all sectors and have every department responsible for integrating women's issues into all programmes.** The Lao Women's Union itself having gained substantial programmatic experience and recognition should now strive to intercede more boldly and forthrightly in the arena of gender policy and planning at the macro level.

## **8.5 TWO MORE URGENT GENDER POINTS TO SUPPORT RURAL WOMEN**

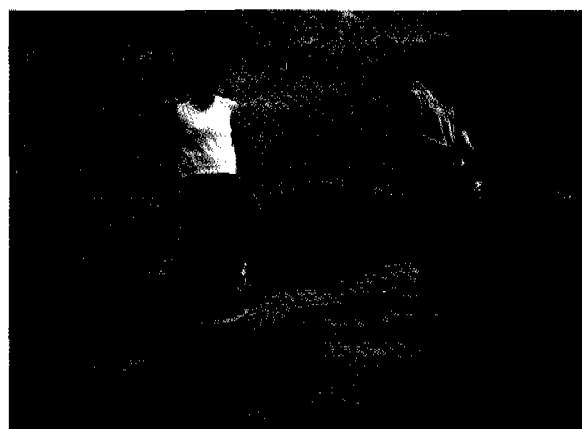
Finally we want to raise two urgent general gender points which are of crucial importance to the strengthening of women in the villages: access to water for domestic use and customary land rights of Lao Lum women and land legislation.

### **8.5.1 Water for domestic use**

The village studies clearly show that the women's reproductive role is heavy and time-consuming, although they have developed marvellous skills to combine motherhood roles with household work and food supply. Technologies to reduce the women's workload in fetching water are urgently required, as drinking water conditions were, in most of the villages we visited, very bad. Our study revealed that there is no concept at all in sophisticated irrigation schemes, in which millions of kips are invested to relieve the

workload of women by incorporating better and less exhausting water supply facilities for domestic and irrigation use.

In Ban Phonkkam (IFAD scheme Nam Piu), for example, we found that 22 households have taken a loan of altogether 6 million kip. That is 300,000 per family, to be repaid in seven years. The contract for the loan has to be signed by husband and wife. There is no wage labour in the village and the money to repay the debt has to be generated by mainly women's work. Women sell pigs and poultry and earn income with silk weaving<sup>53</sup>. The women can earn 20,000 to 30,000 per year from livestock and 60,000 kip with weaving. Nevertheless, there is no provision whatsoever for drinking water or water for domestic use included in the plan, although it is a real problem.



*Drinking water in drums in the river*

We visited the drinking water source: it is very far and consists of two drums in the river with graphite and gravel to filter it. Women have to make at least seven to eight trips a day to the drums for fetching drinking water.

The proper provision of easily available drinking water is becoming more pressing as the general problem of labour shortage is a constraint in the cultivation of a second paddy crop. In view of this urgent

gender problem, visits were made to study the implementation of hand pumps and the provision of large water jars by Unicef and NGOs. They are being implemented in two districts in the province Nongbok and Sebangfei. LWU has a lot of experience with small drinking water devices. To explore the possibilities, the WID team studied the scope and limits of these small devices in the province.

In Santesouk village 24 hand pumps have been installed. They function well and the village is an oasis in comparison with the usual dry surroundings of villages. Everywhere people grow trees, vegetables and flowers around the house. The hand pump water is of good quality and is used for all other household uses. The LWU has organised a training for villagers in which they learned how to find underground water, how to make a borewell manually and how to install a hand pump. LWU distributes the subsidised equipment and material for the hand pump to the villagers, who have to pay a contribution (see Schenk-Sandbergen 1994 a). With the contribution of the beneficiaries the LWU helps to make family toilets. Each family receives two bags of cement. They have a training so that people can make it themselves (every 10 households one trained person/women). The LWU provides the equipment to construct the toilet. Repair of the pumps is done by beneficiaries twice or thrice a year. No technical problems have been reported. Besides, the hydro-geological conditions seem suitable for installing hand pumps. We watched the drilling of a borewell with a bamboo stick. In some places only 8 metres is sufficient to get a good water harvest. In other places it is maximum 18 metres. A total of 230 hand pumps have been installed in two districts. In relation with this project LWU also organised a training in Thakhek for hand pump users on how to grow vegetables in a biological way without use of fertilizers, pesticides etc.

Large water jars have been introduced in Ban Donkeonca, Nongbok. They are used for irrigation of

<sup>53</sup> We made a walk in the village and saw many remnants of the war. Half bombs are used as stairs, cattle trough, etc. We see the silkworm rearing in the houses: yellow cocoons are fixed on bamboo mats. Worms in the basket eat mulberry leaves. After winding the silk thread the old worms are fried and eaten. That special 'snack' was offered to us and it tasted deliciously. It is one of the best source of protein.

small kitchen gardens around the house and domestic water use. The jars can contain 2000 litres of water. Before use they have to be cleaned twice. Each family has had to pay 1300 kip for the transport of the materials. They have trained local people (10 families one group) to make the jars. The LWU has 16 units where they keep the moulds and the equipment. There is a tap and an outlet in the jar to clean it. They put limestone and chlorine in the water for purification. The total cost of a jar is 23,000 kip. Unicef has provided the finance for a total of 1970 water jars. Some water jars show cracks and have to be repaired, which can be done by the people themselves.

The ground water/hand pump/water jar programme implemented by Khammuan LWU was highlighted at the Second National Irrigation Conference in 1994, and training courses have been organised for staff of the irrigation department to share the experience of the Lao Women's Union.

We are aware that the Department of Irrigation should not be mixed up with the implementation of drinking water facilities, as this is the responsibility of the Ministry of Health. Nevertheless an effort can be made to incorporate facilities in irrigation schemes for domestic and multi-purpose use of water. Small facilities can be made for fetching water for irrigation of vegetables with spray-buckets and to uplift water in buckets for washing and bathing.

On the institutional side we came to know that for example in Xicng Khouang the so-called Development of Rural Women Committee has been established. The committee consists of the following members of line departments: Vice-governor (president), Plan Finance, LWU (vice-president), PAFSO irrigation, health department, agriculture. This Committee might offer a coordination point to integrate irrigation with different other development activities, such as the provision of drinking water when planning of an irrigation scheme is undertaken.

### 8.5.2 Customary land rights

In the context of irrigation development and strengthening of women, land ownership and rights are fundamental issues. As pointed out in paragraph 2.4.2 we are very concerned about findings in the provinces which show that the largest threat for the erosion of

women's traditional power resources in agrarian production might be in the sphere of land legislation. Laos is in the rural transition phase of cooperative structures to individual land ownership. The State is exploring all possibilities to enhance its income, and land tax is a substantial contribution. Therefore, in all provinces and districts large-scale land surveys are being carried out (often contracted to private firms) to determine individual land ownership in order to upgrade the pre-war cadastral surveys and allotment of land titles. At present it seems that almost all land is registered in the name of the 'head of the household': usually men. Only in cases of female headed households (widows) or where women insisted on their rights was the land registered in the name of a woman in the house.

This male-dominant classification of land titles might cause a dramatic change in the power basis of Lao Lum women, which may have very drastic negative effects for their role in agrarian production and their status. With this they may lose, as experience in other Third World countries shows, one of the most basic and vital customary power resources: the land they have inherited from their parents.

In relation with irrigation it can be assumed that the settlement of property rights on land will get priority in areas with irrigated agriculture aiming to grow a second crop. These areas will produce a high yield of rice and as the land tax collection is based on the output of the land in a cumulative way (the more output the more tax) these areas will be the first in which the State will be interested to complete cadastral operations. Further investigations will be necessary to substantiate our concerns.

Therefore, we strongly recommend to raise the awareness about the male-dominated land survey and land registration programme that is going on in the country, as it might endanger the great matrifocal and matrilineal land inheritance tradition, on the basis of which the women could preserve their very strong position in (irrigated) rice production. It appears to be very urgent to raise awareness among the Lao Women's Union, Government departments, NGOs, the women in the villages and the implementing (surveying, registering) males, about the fundamental customary right on land ownership for Lao Lum women.

## ANNEXES

### Annex 4.1. Overview of primary school data, Vieng Xai village

Degree of class	Number of classes	No. of students			Teachers
		Girls	Boys	Total	
Class 1.	2	28	16	44	6 schoolmasters 4 female school teachers.
Class 2.	2	27	18	45	
Class 3.	2	14	24	38	
Class 4.	2	20	28	48	
Class 5.	1	18	9	27	
total		107	95	202	

### Annex 4.2 Role of husbands during deliveries in Vieng Xai

Who assisted during delivery?	Number of cases
Husband only	3
Husband and relatives husband (mother-in-law, sister-in-law)	7
Only mother-in-law (sister-in-law)	3
Mother of wife	1
Husband and mother of wife	3
Husband and neighbours	1
Husband and village nurse	1

### Annex 4.3 Activity profile Ban Vieng Xai;

No.	Activities	Wom	Men	Girl	* Boy
<b>I. RICE PLANTATION</b>					
1	Preparation of tools	-	+	-	-
2	Selection of seed	+	-	-	-
3	Soaking	+	+	-	+
4	Making dikes	-	+	-	+
5	Making fence	+	+	-	-
6	Transporting manure	-	-	-	-
7	Ploughing	-	+	-	+
8	Harrowing	-	+	-	-
9	Sowing	+	+	-	+
10	Uprooting seedlings	++	+	+	+
12	Transplanting	++	+	+	-
13	Watching water	-	+	-	-
14	Weeding	++	+	+	-
15	Guarding the field at night	-	+	-	+
16	Harvesting	+	+	-	+
17	Packing hay	+	-	-	-
18	Threshing by hand	+	++	-	+
19	Transporting to storage	+	+	+	-
20	Selling	+	-	-	-
<b>II. SHIFTING CULTIVATION</b>					
1	Clearing land	-	+	-	-
2	Burning slash	-	+	-	-
3	Planting	+	+	-	-
4	Intercropping	+	-	-	-
5	Weeding	+	+	-	-
6	Harvesting	+	+	-	-
7	Threshing	-	+	-	-
8	Transporting home	+	+	-	-
9	Selling	+	-	-	-
<b>III. LIVESTOCK</b>					
1	Cattle/buffaloes	-	+	-	+
2	Release/get back home	-	+	-	+
3	Feeding pigs	+	+	-	+
4	Feeding poultry	+	-	+	+
5	Watching goats	-	-	-	+

Annex 4.3 (continued)

No.	Activities	Wom	Men	Girl	* Boy
<b>IV. GARDENING for CASH CROP</b>					
1	Land preparation	-	+	-	+
2	Ploughing or digging	-	+	-	+
3	Fencing	-	+	-	+
4	Planting	+	-	+	-
5	Putting manure	+	-	-	+
6	Watering	+	+	+	-
7	Weeding and taking care	+	-	+	-
8	Guarding at night	-	+	-	+
9	Harvesting	+	+	+	-
10	Selling	+	-	-	-
<b>V. HOUSEHOLD WORKS</b>					
1	Cutting trees for firewood	-	+	-	+
2	Collecting firewood	+	+	+	+
3	Fetching water	+	+	+	+
4	Cleaning house/making order	+	-	+	-
5	Cooking	+	+	+	+
6	Carrying food to field	+	-	+	+
7	Taking care of sick people	+	+	-	-
8	Washing clothes	+	+	+	+
9	Taking care young children	+	+	+	+
10	Go to market for food, durable goods	+	-	-	-
<b>VI. HANDICRAFTS</b>					
1	Weaving	++	-	+	-
2	Making loom/weaving tools	-	+	-	+
3	Tailoring	+	-	-	-
4	Bamboo works	-	+	-	+
<b>VII. COLLECT FOREST PRODUCTS</b>					
1	Vegetables, mushroom, bamboo shoots	+	-	+	+
2	Hunting	-	+	-	+



### Annex 4.3 (continued)

No.	Activities	Wom	Men	Girl	* Boy
	<b>VIII. IRRIGATION, O&amp;M</b>	+	+	-	-
1	Digging canals	+	+	-	-
2	Transporting gravel/rocks	-	+	-	-
3	Cutting woods	-	+	-	-
4	Cement works	+	-	-	-
5	Transporting water, cement	+	+	-	-
6	Cleaning canal	-	+	-	-
7	Water care taking	-	+	-	-
8	Opening/shutting the water door				

**Remarks:** Girls and boys may assist parents.

++ Do more.

### Annex 5.1. Activity Profile Ban Dong Dan

No.	Activities	Wom	Men	Girl	* Boy
	<b>LRICE PLANTATION</b>				
1	Preparation of tools	-	+		
2	Selection of seed	+	-		
3	Soaking	+	+		
4	Making dikes	-	+		
5	Making fence	+	+		
6	Transporting manure	+	+		
7	Ploughing	-	+		+
8	Harrowing	-	+		+
9	Sowing	+	+		
10	Uprooting seedling	+	-	+	
12	Transplanting	+	-	+	
13	Watching water	-	+		.
14	Weeding	+	+	+	
15	Guarding the field at night	-	+		
16	Harvesting	+	+		+
17	Packing hay	+	+		
18	Threshing by hand	+	+		
19	Transporting to storage	+	+		+
20	Selling	+	-		

Annex 5.1 (continued)

No.	Activities	Wom	Men	Girl	* Boy
<b>II. SHIFTING CULTIVATION</b>					
1	Clearing land	-	+		
2	Burning slash	-	+		
3	Planting	+	+		
4	Intercropping	+	-		
5	Weeding	+	-		
6	Harvesting	+	+		
7	Threshing	-	+		
8	Transporting home	+	+	+	+
9	Selling	-	-		
<b>III. LIVESTOCK</b>					
1	Cattle/buffaloes,	±	+		+
2	release/get back home	+	+		
3	Feeding pigs	+	+		
4	Feeding poultry	+	-	+	
5	Watching goats	-	-		+
6	pounding animal feeds	+	-		
<b>IV. GARDENING FOR CONSUMPTION CASH CROP</b>					
1	Land preparation	+	-		
2	Ploughing or digging	+	-		
3	Fencing	+	-		
4	Planting	+	-	+	
5	Putting manure	+	-		
6	Watering	+	-		
7	Weeding and taking care	+	-	+	
8	Guarding at night	+	-		
9	Harvesting	+	-		
10	Selling	+	-		

Annex 5.1 (continued)

No.	Activities	Wom	Men	Girl	* Boy
<b>V. HOUSEHOLD WORKS</b>					
1	Cutting tree for fire woods		+		
2	Going to collect fire woods	+	+	+	+
3	Fetching water	+	-	+	+
4	Cleaning house/making order	+	-		
5	Cooking	+	-		
6	Carrying food to field	+	-	+	
7	Taking care of sick people	+	+	+	
8	Washing clothes	+	+		
9	Taking care young children	+	-		
10	Go to market for foods	+	-		
	durable goods	-	+		
<b>VI. HANDICRAFTS</b>					
1	Weaving	-	-		
2	Embroidery	+	-	+	
3	Tailoring	-	-		
4	Bamboo works	-	+		+
5	Thatch roofing making	+	+		+
6	Black smith	+	+		
<b>VII. COLLECT FOREST PRODUCT</b>					
1	Vegetables, mushroom, bamboo shoot	+	-		
2	Hunting	-	+		
3	Medicinal herbs	+	-		

**Annex 6.1 Age of mother, number of children born, died, and causes of death of children among 22 mothers in Nong Jama;**

H.h. no.	Age of mother	Babies born	Children died	Causes
1.	36	2	–	–
2	55	10	4	fever
3	34	5	1	disease
4	26	4	–	–
5	34	7	1	miscarriage
6	55	12	11	disease/accident
7	80	6	1	unknown
8	27	4	–	–
9	23	3	–	–
10	19	no husband	–	–
11	40	20	13	fever/war
12	25	4	1	fever
13	35	5	1possessed by spirit	
14	30	4	–	–
15	28	5	–	–
16	21	3	2	premature
17	45	7	1	stillbirth
18	34	5	–	–
19	52	14	7	disease/war
20	68	15	2	disease/war
21	25	3	2	disease
22	34	5	1	dysentery

## Annex 6.2 Activity Profile Ban Nong Ja Ma;

No.	Activities	Wom	Men	Girl	* Boy
<b>I. RICE PLANTATION</b>					
1	Preparation of tools	-	+		
2	Selection of seed	+	-		
3	Soaking	+	+		
4	Making dikes	+	+		
5	Making fence	+	+		
6	Transporting manure	+	+		
7	Ploughing	-	+		+
8	Harrowing	-	+		+
9	Sowing	+	-	-	
10	Uprooting seedling	+	-		
12	Transplanting	+	±	+	
13	Watching water	+	+		
14	Weeding	-	+	+	
15	Guarding the field at night	+	+		
16	Harvesting	+	+		
17	Packing hay	+	-		
18	Threshing by hand	+	+		
19	Transporting to storage	+	+		
20	Selling	+	-		
<b>II. LIVESTOCK</b>					
1	Cattle/buffaloes,	+	+		+
2	release/get back home	+	+		+
3	Feeding pigs	+	+		+
4	Feeding poultry	+	-	+	-
5	Watching goats				+
<b>III. GARDENING for CONSUMPTION CASH CROP</b>					
1	Land preparation	+	-		
2	Ploughing or digging	+	-		
3	Fencing	+	-		
4	Planting	+	-		
5	Putting manure	+	-		
6	Watering	+	-	+	
7	Weeding and taking care	+	-	+	
9	Harvesting	+	-		
10	Selling	+	-		

## Annex 6.2 (continued)

No.	Activities	Wom	Men	Girl	* Boy
<b>IV. HOUSEHOLD WORKS</b>					
1	Cutting tree for fire woods	-	+		
2	Going to collect fire woods	+	-		
3	Fetching water	+	+	+	+
4	Cleaning house/making order	+	-	+	
5	Cooking	+	-	+	
6	Carrying food to field	+	-	+	
7	Taking care of sick people	+	+	+	
8	Washing clothes	+	+	+	
9	Taking care young children	+	-	+	
10	Go to market for foods durable goods	+	- +		
<b>V. HANDICRAFTS</b>					
1	Weaving	-	-		
2	Making loom/weaving tools	-	-		
3	Tailoring	+	-		
4	Bamboo works	+	+		
5	Thatch roofing making	+	-	+	
<b>VII. COLLECT FOREST PRODUCTS</b>					
1	Vegetables, mushroom, bamboo shoots ...	+	-	+	
2	Hunting	-	+		+
3	Medicinal herbs	+	-		
<b>VIII. IRRIGATION, O&amp;M</b>					
1	Digging canals	-	+		
2	Transporting gravel/rocks	-	+		
3	Cutting woods	+	+		
4	Cement works	+	+		
5	Transporting water, cement	+	+		
6	Cleaning canal	+	+	+	+
7	Water care taking	-	+		
8	Opening/shutting the water door	-	+		

**Annex 7.1 Age of mother, number of children born/died, and causes of death of children among 20 mothers in Ban San;**

H.h. no.	Age of mother	Babies born	Children died	Causes
1	31	3	-	-
2	63	8	3	disease
3	28	2	1	disease
4	57	13	5	disease
5	60	13	4	disease
6	36	5	-	-
7	39	no husband	-	-
8	38	9	-	-
9	45	9	3	disease
10	43	11	6	disease
11	53	-	-	-
12	50	13	4	disease
13	25	2	1	
14	54	5	-	-
15	63	10	4	fever
16	34	6	-	-
17	42	5	-	-
18	40	10	2	disease
19	35	12	7	disease
20	56	14	7	disease
		<b>150</b>	<b>47</b>	

\* including abortions

## Annex 7.2 Activity Profile Ban Bung San

No.	Activities	Wom	Men	Girl	* Boy
<b>I. RICE PLANTATION</b>					
1	Preparation of tools	-	+	-	+
2	Selection of seed	+	-	-	-
3	Soaking	+	+	-	-
4	Making dikes	-	+	-	+
5	Making fence	+	+	-	+
6	Transporting manure	+	+	-	-
7	Ploughing	-	+	-	+
8	Harrowing	-	+	-	+
9	Sowing	+	+	-	-
10	Uprooting seedling	++	+	+	+
12	Transplanting	++	+	+	+
13	Watching water	-	+	-	-
14	Weeding	++	+	+	-
15	Guarding the field at night	-	+	-	-
16	Harvesting	+	+	-	+
17	Packing hay	+	-	-	+
18	Threshing by hand	+	++	-	-
19	Transporting to storage	+	+	+	+
20	Selling	+	-	-	-
<b>II. LIVERSTOCK</b>					
1	Cattle/buffaloes,	-	+	-	+
2	release/get back home	-	+	-	+
3	Feeding pigs	±	+	-	+
4	Feeding poultry	+	-	+	+
5	Watching goats	-	-	-	+
<b>III. GARDENING for CONSUMPTION CASH CROP</b>					
1	Land preparation	-	+	-	+
2	Ploughing or digging	-	+	-	+
3	Fencing	-	+	-	+
4	Planting	+	+	+	-
5	Putting manure/fertilizer	+	+	-	-
6	Watering	+	+	+	-
7	Weeding and taking care	+	-	+	-
8	Harvesting	+	+	+	-
9	Selling	+	-	-	-



Annex 7.2 (continued)

No.	Activities	Wom	Men	Girl	* Boy
<b>IV. HOUSEHOLD WORKS</b>					
1	Cutting tree for fire woods	-	+		
2	Going to collect fire woods	+	-		
3	Fetching water	+	+	+	+
4	Cleaning house/making order	+	-	+	
5	Cooking	+	-	+	
6	Carrying food to field	+	-	+	
7	Taking care of sick people	+	+	+	
8	Washing clothes	+	+	+	
9	Taking care young children	+	-	+	
10	Go to market for foods durable goods	+	- +		
<b>V. HANDICRAFTS</b>					
1	Weaving	-	-		
2	Embroidery	-	-		
3	Tailoring	+	-		
4	Bamboo works	+	+		
5	Thatch roofing making	+	-	+	
<b>VI. COLLECT FOREST PRODUCT</b>					
1	Vegetables, mushroom, bamboo shoot	+	-	+	
2	Hunting	-	+		+
3	Medicinal herbs	+	-		
<b>VII. IRRIGATION, O&amp;M</b>					
1	Digging canals	-	+		
2	Transporting gravel/rocks	-	+		
3	Cutting woods	+	+		
4	Cement works	+	+		
5	Transporting water, cement	+	+		
6	Cleaning canal	+	+	+	+
7	Water care taking	-	+		
8	Opening/shutting the water door	-	+		

## Note on the Authors:

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**Dr. Loes Schenk–Sandbergen** is an Associate Professor of the Anthropological–Sociological Center, Section South– and Southeast–Asia of the University of Amsterdam. Besides, she is a consultant, in particular in Women in Development. She is an anthropologist and development sociologist by profession. She did substantial anthropological research, and impact– and evaluation studies in India. Since 1980 she has been involved as coordinator, director and team leader in various development cooperation projects, NGO activities, and academic exchange programmes, in India, China, Philippines, Bangladesh and Laos. Her field of specialisation concentrates on Women (gender) in Development, irrigation, integrated rural development, water and sanitation projects, social forestry, income generating activities and institutional development and strengthening. She has developed ‘contextual’ training courses and manuals on Gender and Participatory Gender Studies. Besides writing numerous articles and project documents, she is the author of several books.

**Dr Outhaki Choulamany–Khamphoui** is at present working as a senior consultant and resource person Women (gender) in Development. Being a medical doctor by profession, she has a long career of responsible positions in health. During the war time she worked in the Central Hospital in the Liberated Zone in Houaphan Province. After the liberation she was a Deputy of Vientiane’s Municipality Popular Assembly, and the Director of the Health Department of Vientiane Municipality. For many years she was responsible for Mother and Child Health, and Women in Development as a Member of Vientiane’s Municipality Women’s Committee. In view of her background she is an expert in primary health care, health education and health management. The past years she was involved in many projects as a member of assessment teams investigating the gender aspects of rural development. She developed, and implemented various training courses in gender awareness and gender planning in the framework of many projects.

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