

Juth Pakai



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New Thought

Issue 5



Perspectives on Lao development

**Mental health, public hospitals,
water resources and the Lao Huay**

Juth Pakai

Issue 5

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Sharing Information to Stimulate Development

The Editorial Board of *Juth Pakai* firmly believes that the objectives of alleviating poverty and stimulating development in the Lao PDR will be better pursued if information and innovative thinking are shared. The articles presented here challenge our current way of thinking and/or contain information that has not yet been published. We sincerely hope that *Juth Pakai* will stimulate an active development debate and will contribute to a better understanding of the development challenges in the Lao PDR.

Editorial

The fifth issue of *Juth Pakai* is published at an auspicious time, marking 30 years of the Lao PDR and 50 years of Lao membership of the UN. The UN has been at the side of the government as the country has gone from strength to strength. Not only can we see improvements in GDP, agriculture, health and education, but there is also a gradual move towards a society more welcoming of discussion and debate. *Juth Pakai* is both a symbol of that progress, and a vehicle for sharing information and increasing equitable development.

This edition brings you two articles on public health, where there is still much progress to be made. Mental health is under-discussed in Laos, and the paper by Dr Choulamany and Didier Bertrand is a welcome opening on the subject. The other health paper summarises a study made for the World Health Organization (WHO), which reveals inconsistencies in public hospitals and provides valuable information for planners in this field.

Efficient use of water and its associated benefits is essential to continued growth in the country. Sisavanh Phanouvong and Ving Sengsirichanh's survey of rural water and sanitation reveals some of the advances and pitfalls of recent developments. The importance of conserving aquatic resources is emphasised in an article on the food found in wetlands throughout the country. Not only do these water sources provide nutrition, but their exploitation is an integral part of Lao culture, and steps are required to ensure they are preserved for future generations.

Jacques Lemoine's description of the Lao Huay people is a fascinating sketch of an ethnic group trying to maintain their traditional identity in this period of change. Preserving culture is very important, but not always simple: rural people demonstrate repeatedly that they have no wish to live as 'museum exhibits,' locked in an existence where progress is denied.



Finn Reske-Nielsen
UN Resident Co-ordinator

Letters

Journal Themes and NAFRI

Colleagues,

I would like to congratulate the editorial team for their efforts in making *Juth Pakai* a regular feature within the development community. It is great to see this journal take root and expand. Publications such as *Juth Pakai* are an important means of building a culture of research and of sharing research results.

There are two suggestions I would like to make. First, it might be useful to have certain issues of the journal focus on specific themes or key topics of interest to development in the Lao PDR. Over the last couple of issues there have been many interesting articles, but no real theme connecting them together. Thematic-based issues might be a valuable way of creating a common understanding of the challenges and opportunities facing different sectors. Secondly, we would like your readers to be aware that the National Agriculture and Forestry Research Institute also publishes the *Lao Agriculture and Forestry Journal*, which focuses on disseminating research in the sector to a broad range of actors. If anyone is interested in receiving copies, please contact the NAFRI information management division for information.

Keep up the good work and I look forward to seeing future editions of *Juth Pakai*!

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Editor: We have considered publishing thematic issues but have so far been happy to publish a combination of different articles in each issue to make the journal appeal to a wide range of people. We are open to specialist issues in the future though, and are working on publishing a special issue to celebrate the Lao authors who submitted papers to the UN Development Research Award.

The United Nations in the Lao PDR is supporting the production of *Juth Pakai, Perspectives on Lao Development* with the aim of stimulating dialogue on all issues related to development in the country. The Editorial Board has reviewed the articles presented in this issue. The views expressed in this publication are those of the authors and do not necessarily represent those of the United Nations in the Lao PDR.

Mental Health in the Lao PDR

by Didier Bertrand and Chantharavady Choulamany

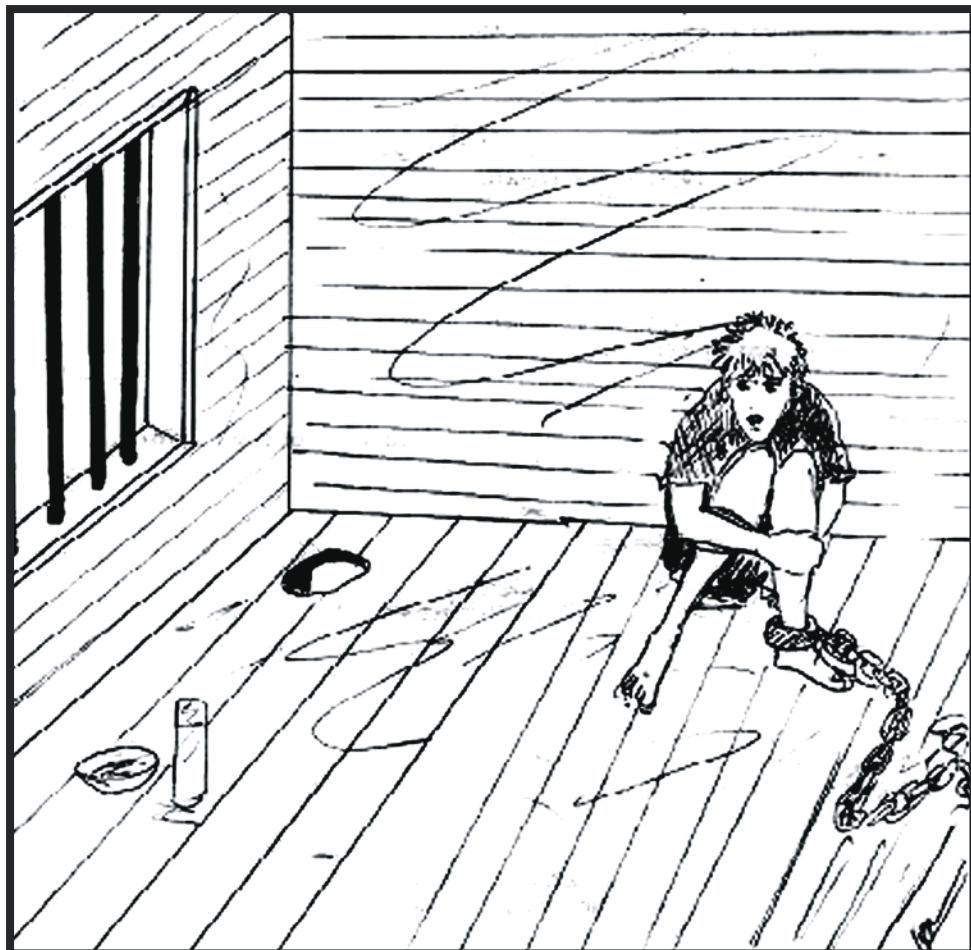


illustration by Vongtavanh Sayavong

Mental Health in the Lao PDR

by Didier Bertrand and Chantharavady Choulamany

The authors conducted an analysis of the mental health situation in Laos, with support from the World Health Organisation, to provide information that can be used to begin establishing care and prevention units at provincial level and developing appropriate training curricula for medical professionals. Mental health patients, their families and medical professionals were interviewed. The survey reveals traditional and changing attitudes to mental health and confirms that professional psychiatric help is currently very limited. Follow-up based on this and other outreach work has not yet been implemented. Recreational activities and rehabilitation for patients are not available and these should be developed with the National Rehabilitation Centre. Professional training on mental health needs to be instituted for medical staff, while more evaluation and research is needed to help set priorities and assess progress.

“Mental health is the foundation for the well-being and effective functioning of individuals. It is more than the absence of mental disorder. Mental health is the ability to think and learn, and the ability to understand and live with one’s emotions and the reaction of others. It is a state of balance within a person and between a person and the environment. Physical, psychological, social, cultural, spiritual and other interrelated factors participate in producing this balance. The inseparable links between mental and physical health have been demonstrated” (WHO, 2002).

People in Laos have often been described as gentle and easy-going, with a happy lifestyle and an attitude that cultivates harmony. There is an idea that Lao culture supports a mentally healthy style of living. However, life is changing rapidly in many areas of the country, and the various cultures within the population will have to adapt quickly if people are to meet these changes without challenges to their mental health.

In the mountainous areas which form two-thirds of Laos, deforestation, dam construction, and the displacement of villages in order to regroup diverse ethnic groups are forcing many to adopt new ways of life. The availability of local natural resources is decreasing. At the same time, new roads, markets, and access to modern communications such as television are bringing to rural people a new world for which they may not be well prepared.

Urban Lao people are also facing an altered living environment. Economic and social changes are influencing the values, beliefs and way of life of Lao people, most rapidly in cities and towns. With the increase of purchasing power, people may have started to become more materialistic and consumerist. As people become more mobile, family structures are weakened and inter-generational links grow less tight. Both these developments may have a negative impact on child and youth development.

Traditional Support

The idea of mental health as a clinical issue is a completely new concept for most Lao people. Traditionally, most people's lives have been supported by Buddhism. Monks are usually consulted in case of problems or to help interpret bad dreams, bad feelings or strange behaviour. Monks usually give prayers to appease or relieve the forces causing such tensions. While this is the prominent religion, animism is also part of the general belief system. *Suk kbuan*, the call of souls, is a ceremony widely performed at significant events such as birth, death, illness, and departures. A person must have all their 32 souls present in their body if they are not to be vulnerable to negative influences.

Family-based values are widespread across the country, while some ethnic groups are also structured by clan. Elders are consulted in times of personal crisis. On a more official basis, the mass organisations are deeply rooted and networked throughout the country. They tend to promote mutual understanding, solidarity, good morality, and nationalism, reinforcing the social control of the state while providing membership and camaraderie to those that enjoy participating in them.

Mental Health Services and Facilities

Access to medical help for mental health problems is extremely limited in Laos. Among health professionals there is a lack of experience in the field of psychiatry and mental health. Data collection on mental health is still limited. The number of beds available to mental health patients is 29, and all these are in Vientiane.

The Mental Health Unit at Mahosot Hospital, opened in 1979 with Soviet assistance, has 15 beds for adults only. It is staffed by two psychiatrists, a neurologist, four general practitioners and eight nurses. The Unit receives both inpatients and outpatients. Admission is usually for acute mental patients with an average stay of two to four weeks. Outpatients come for minor psychiatric troubles or psychological problems. The psychiatric team sees patients once a week, often accompanied by their families. The most frequent psychiatric problems diagnosed in 2001 were epilepsy (26%), followed by substance abuse (23.9%), schizophrenia (13.7%), and neurosis (11.2%). With just one ward, it is not usually possible to separate patients by sex or condition.

The psychiatric unit at the 103 Military Hospital was established in 1978 with 14 beds. The staff is composed of four general practitioners, five medical assistants and 13 nurses. The average length of admission is one week and after discharge patients should come for weekly follow-up visits. 176 mental patients sought treatment at this unit from January-October 2002. The majority of cases are related to drug addiction. There were only ten psychotic patients (i.e. those suffering severe mental delusions or hallucinations). Seven cases were considered psychosomatic (i.e. with physical diseases that have a psychological origin) with symptoms such as insomnia, chronic fatigue, and neurasthenia. Some recreational activities, such as drawing or sports, are provided for those addicted to drugs. Home visits are also organised and conducted by a home visit team of a doctor and a nurse.

Drugs are delivered through government health facilities, revolving funds in health facilities and villages, and through private pharmacies and sellers. Drugs are frequently delivered without adequate information or labelling. Most are purchased on self-prescription and treated like normal commodities. The irrational use of drugs is a major problem across the country. A national therapeutic drug policy with a list of essential medicines was formulated in 1997, but no psychiatric treatment drugs are available at the primary level.

General Analysis Findings

Methodology

The questionnaire used in this survey was developed as socio-cultural research into what is said and done in terms of mental health and illness in order to provide a larger understanding of the whole context. The analysis relies on 46 interviews with key informants and patients or their families and with 40 medical professionals.

Concepts of Mental Illness

In general, mental health is referred to in Lao as *chit chay* - the spirit and the heart, *neo kit* - the thought, and physiologically as *samong*, *sen pasath*, and *labob pasath* - the brain, nervous fibres and nervous system. Medics provide more answers in terms of organic references to the subject.

Apart from insanity characterised by obvious abnormal behaviour, mental suffering is not recognised as a problem as such. Mental disease is perceived through behavioural disorder, brain damage, cognitive disorder (troubles of memory, speech, and hallucinations), affective-emotional disorder, and through physical appearance (e.g. untidiness and dirtiness).

Problems met in the community and professional practice include drug and alcohol abuse, family violence, gambling, delinquency, suicide, senility, sexual and child abuse, and 'abnormal behaviour' (mostly referring to transsexuals). The general feeling is that due to the opening of the country and a more materialistic life style, mental health problems are increasing while social control and morality are decreasing. Expectations are getting higher while dreams seem to be inaccessible. One monk said, "people are developing *ba yak dai*, a mad desire to acquire; they suffer from a madness of craving".

Causes

Traditional understanding of mental disorders provides a dual classification, mad or non-mad, based on the symptoms. Further distinctions may be made based on the causes. The insane (*ba*) are described as exhibiting unusual thought and behaviour. They might be dangerous. Madness attributed to spirits (*phi ba*) is the major category of madness. Witchcraft and spells are still present in the minds of most people when considering mental illness. The most acknowledged symptom of the so-called mad is epilepsy (*ba mu*). The non-mad category refers to several pathologies including depression, Down's syndrome, and psychological/intellectual dysfunctions (impaired thought, memory, logic or intelligence), including mental retardation.

Causes are primarily attributed to organic problems such as defective nervous fibres or system and brain damage. These defects may be caused by genetic inheritance (*kamaphan*), by external spells or spirit possession, by people breaking a taboo, by defective family care or education, by food deficiency, or by use of contraceptive medicine. Mental retardation (*baw tem*, literally 'not full') is common. Symptoms are low skills, poor memory and understanding, verbal difficulties, and slow mobility. In several cases, patients or their families enunciated pluralistic aetiologies, looking for answers in both traditional and modern treatment contexts. In interviews with patients and their families, it was found that spiritual causes are perceived as being predominant, followed by genetic and biological causes. Genetic causation has to be understood broadly: it is not only physical but can refer to karma as well. According to Mr Houmphanh Rattanavong, former director of the National Institute for Cultural Research, "In the Lao culture, some wrong doing in previous life affects karma and might lead to madness" (personal communication).

*Mental health problems are
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morality are decreasing*

Disorders and Symptoms

Neurosis and Anxiety Disorders

There is a need for better differential diagnosis in this area, particularly when psychotic-like symptoms emerge from acute traumatic episodes such as road accidents. Hospital emergency wards tend to ignore the mental aspects of such injuries. Given greater coordination, in Vientiane at least, they could refer more patients to the mental health units at Mahosot or the 103 Hospital. Most of the schizophrenics met during the analysis remain untreated by mental health professionals. Some families chained them at home. Others wander around, being fed by family or neighbours. Given the attachment to land and place, being chained at home and visited by the community may be better for their mental health than being kept isolated and overmedicated by strangers in a hospital far from home. Some can work and support themselves: they have rice fields and catch fish. Usually they have no marital life or children but their relatives live near by.

Psychosis and Schizophrenia

These problems are under-reported, and self-treatment with Valium is common in cases of economic problems or family conflict. Such disorders are usually not seen as a mental problem unless the affected person exhibits signs of megalomania (*ba nyot*) or obsessive, perverse or manic forms of neurotic behaviour. Such categorisations are not generally recognised in Laos, while few bipolar or manic-depressive patients have been recorded in Lao clinics.

Epilepsy

Most of the people interviewed know at least one case of epilepsy. The major concerns related to epilepsy are access to appropriate treatment and accurate diagnosis. Doctors should be careful to make diagnoses based on case histories rather than isolated behaviour. They should not desist from detailed history taking and clinical investigations where appropriate: not every seizure should be diagnosed as epilepsy as cysticercosis or other causes of seizures have to be considered.

Suicide

Suicide is a sensitive issue, condemned by Lao society, and it is difficult to get reliable data on the subject. In Lao culture, one who takes his own life cannot be buried in the pagoda and his wandering souls (*phi tai hong*) might be harmful to his relatives and other people. In neighbouring Thailand, the rate has been rising on a yearly basis (Government of Thailand, 2001). When asked if they know of any case of suicide (*ka to tai*) several informants said no, but when asked, “did you hear or meet any people who tried to drink poison?” then some cases are mentioned. The 96 participants in the survey reported 25 cases, mostly related to young people with relational problems with their parents, spouses, or boy/girl friends. Only three cases of attempted suicide were presented at the Mahosot Psychiatric Unit during the year of the survey. There are doubtless many more cases that arrive in hospitals but again are not referred to the Unit.

Substance Abuse

Substance abuse has been reported as a major mental problem across the country, apart from in remote villages in Sekong where it is just starting. Alcoholism deserves more attention, as in Laos alcohol consumption is deeply rooted in social behaviour and it is difficult to identify the addicts. The use of Amphetamine Type Stimulants (*ya ba*) has been increasing since the mid 1980s. Young men aged 15-18 and students at secondary schools, from all socio-economic backgrounds, are the most concerned. Outside Vientiane, no treatment is available, so cases are referred to the police at the parents’ request, and then taken into police custody. In the capital, there is now a specialised Treatment and Rehabilitation Centre for drug abuse, the Somsanga Centre.

Mental Retardation and Disability

All key-informants recognise mental retardation and can describe symptoms. Down’s syndrome patients are not classified as a specific category but are seen as *baw tem*. Intellectually disabled children are at risk of physical and sexual abuse, but family violence and sexual abuse are rarely reported in Lao society. Nutritional deficiencies, especially of iodine, are a cause of mental disability, and more investigations are needed to establish the extent of this in remote areas.

According to Inthirat (1999), between 252,000 and 360,000 people in Laos (7-8% of the population) are affected by a permanent or temporary disability. A survey by Handicap International and the National Centre for Medical Rehabilitation in the same year estimated that a total of 27% of handicaps can be related to mental problems.

Dealing with the Mentally Ill

Doctors are generally considered the first persons that can provide assistance when someone develops a mental illness. More than three-quarters of the survey respondents also said that families can help the patient. Friends, neighbours, the mass organisations and village leaders were also mentioned as sources of support. While 75% of the medical professionals interviewed were aware of the role that psychiatrists can play, three-quarters of the non-medical respondents had never heard of such professionals.

In rural areas, poorly trained medical assistants and nurses have little or no knowledge about psychiatric nosography and treatments. All the medical professionals believe that modern medicine can be effective in treating mental disease, while only just over half of the key informants believe so. Moral support is suggested as being effective. Participants rated traditional medicine as being just as effective as modern medicine.

Religious treatment at the temple is also felt to be effective by more than half of all the informants. The effectiveness of spiritual or magical treatment, while denied by three-quarters of medical professionals, is mentioned by more than half of the other informants. The *baci*, a magical string and traditional soul-calling ceremony performed by the Lao Loum, is believed to be effective in reinforcing, if not curing, by a majority of all the informants. Non-medical care has been used in nearly half of the cases we encountered. Only one-third of those affected were referred to doctors, mostly for epilepsy, while a quarter used traditional medicine. The necessity of long-term prescriptions for psychiatric drugs is often not understood by the patients or their families.

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stood by the patients or their families*

The majority of informants expressed pity, compassion and tolerance towards mentally disturbed persons. Some did mention being afraid of violent behaviour. It was found that patients are well accepted and well treated in their families and neighbourhoods, but they are not stimulated, as families are not aware that possible improvements can be gained. Some patients are chained up at home, but are washed, fed, and receive visits from their former friends. Some mentioned that maltreatment such as biting of the patient can occur during rituals supposed to expel bad spirits. Mental health is described as an economic burden that is difficult for impoverished families to bear.

Psychiatric Drugs: Prescription and Consumption

Phenobarbital, a specialised drug for treating epilepsy, is prescribed by less than half the medical professionals surveyed. It is not available in remote areas and less suitable medicines such as anxiolytics or anti-histaminics are sometimes used instead. Neuroleptics such as haldol and largactyl are known but

usually not available outside Vientiane. It is mostly psychiatrists who prescribe these. A grave concern is that some neuroleptics are used in isolation without medication for neurological side effects. Valium is frequently used, as is Tranxene. There is probably over-prescription of Valium by doctors and drug sellers due to its popularity in providing relief for stress. Overuse of this drug, especially through self-medication, can lead to psychological dependence along with further mental and physical health problems.

Current Human Resource Capacity

The National University of Laos's Faculty of Medical Science has a psychiatry and mental health teaching board which lectures on mental health at the faculty. The board is staffed by two psychiatrists, and two general practitioners who have received on-the-job training in mental health. A short curriculum on the subject has been developed for medical students and nurses.

Currently no postgraduate training is available in mental health, nor are there any mental health education programmes at community level. The Department of Psychology at the National University has nine professors. A general psychology textbook has been published in Lao covering the fields of general, educational and social psychology, and child-teenager development. While the department has a small resource centre housing some scientific journals and about 50 books, more materials are needed. General problems in mental health education and training include a shortage of books in Lao, lack of a manual concerning mental health issues for any Medical Practitioner, and a shortage of trained teaching staff. The Vice Dean of the faculty has identified an urgent need for a curriculum focusing on mental health in the community and primary care for general practitioners.

The National Centre for Medical Rehabilitation

The National Centre for Medical Rehabilitation in Vientiane depends on both the Ministry of Labour and Social Welfare and the Ministry of Health, and is supported by two NGOs, COPE and Handicap International. While the Centre's activities are mainly oriented to the physically handicapped, its team should also include a psychiatrist to provide psychotherapy to handicapped people.

People suffering with mental disorders are not supposed to have a voice, and are often felt not to be able to formulate ideas

The Centre supports a community rehabilitation team that provides outreach work for people suffering from physical, sensorial, mental, and intellectual handicaps. However, due to the lack of human resources and skills, psychological handicaps receive little attention. Some of the team's patients have been referred for psychiatric diagnosis and treatment at Mahosot Hospital, where the psychiatrists gave advice for future treatment both to the team and families. Further cooperation should be encouraged, and medical students interested in psychiatry could be given internships within this project.

The Lao Disabled People's Association (LDPA)

This is a fairly new association, given government approval in 2001. The LDPA works in five provinces (Vientiane, Luang Prabang, Xieng Khouang, Champassak and Sekong), promoting the rights of people with disabilities, empowering them, assisting them with their livelihoods and interests, and bringing about their full participation in general society. However, membership conditions currently stipulate that 'insane persons' are not allowed to join the association. This clause effectively bars the mentally disabled.

The Association has indicated that these conditions will be reconsidered at the next statute formulation within three years. Their problem is that they currently have no specialist in mental disorders and it is therefore difficult for them to accept mentally ill cases, apart from those suffering from Down's syndrome and mental retardation: the staff do not feel skilled enough to meet the needs of the mentally ill. The policy may also be linked to the concept that people suffering from mental disorders are not supposed to have a voice, and are often felt not to be able to formulate ideas.

The Ministry of Education

Many primary schools belong to the Ministry's inclusive education scheme (89% in Vientiane but only 13% in Houaphan, with a national average of 47%). These classes are supposed to accept children with all kinds of minor handicaps and who are able to learn without disturbing other pupils. Some teachers have received training on how to work with disabled children but most still need to be trained. The Ministry is also involved in a nationwide campaign against drug abuse.

Mental health problems have been reported on the university campus at Dong Dok, mostly related to students coming from the provinces. Learning problems might lead to suicide attempts when the students fail exams. Some students miss their family and village and become depressed, while others feel overwhelmed by economic problems.

Monks and Temples

Monks feel that they can deliver messages that help people to face new challenges by reinforcing morality and solidarity. Meditation and relaxation can be useful in relieving stress and anxiety. However, it cannot be considered a general policy that the nearest temple be the place to receive some mental treatment or support. Even if the clergy developed a greater understanding of the human psyche, monks would need additional training to be able to cope with patients and to deliver care that goes further than teaching the five basic precepts and moral rules. Stereotypical answers, such as suffering being the result of excessive attachment and craving, or of karma, are often unhelpful.

Traditional Healers

Religious rituals (exorcism or shamanism), conciliation ceremonies, offerings (*kathong*) and sacrifices are often performed on behalf of the mentally ill, and traditional medicine is widely used. Setting integrated mental health care services in conjunction with traditional healers could have positive results in interpersonal, intrapsychic and physiological terms, but their practices need to be regulated and ethical guidelines developed.

Improving the Situation

It seems that the level of discrimination and stigmatisation against patients and their families is low in Lao villages. This positive aspect means that community-based integration programmes can be developed.

More than half of the medical professionals interviewed called for the opening of psychiatric consultation clinics in hospitals. A hospital solution is also mentioned by just over a quarter of the non-medical informants, but not by their families. Specialised hospitals are cited as an option, as are specialised villages (based on the model used after 1975 for handicapped veterans). Creative models for community care seem to be lacking. When an individual is diagnosed with a psychiatric condition, it would be helpful if standard counselling could be given to family and community members to explain behaviour and treatment norms, as well as drug options. Treatment and medication of cases at home early on in a condition is much more cost-effective than later hospitalisation.

Health professionals surveyed also requested more training on basic mental health issues. Some participants called for the Ministry of Labour and Social Welfare to be involved in supporting patients and their families by organising work skills training, social reintegration sessions, and providing a disability benefit. The Social Security Organisation (SSO) and the Community Based Health Insurance schemes (CBHI) do already provide some coverage for psychiatric illness.

Despite the continuing scale of the UXO problem, the psychodynamics affecting victims of mines and UXO are not being addressed as yet. Specialised services such as the Traumatology Unit at the 150-Bed Hospital do not recognise any psychological troubles associated with UXO accidents. The high incidence of malaria, and other infectious diseases that might induce some psychiatric consequences, also deserves further investigation.

Active participation of the family in treatment of the mentally ill should be recommended. If families are able to provide constant and persistent emotional and material support to their sick members, this contributes to a better prognosis. Families should be informed that positive stimulation can bring improvements, though one has to be careful about side effects such as embarrassment, resentment, criticism, excessive shame, and inappropriate intrusiveness. Motivating patients to become involved in basic household activities such as gardening is therapeutic, but must be managed gradually and with great sensitivity to the patient's perceptions.

Summary of Findings and Recommendations

The Lao PDR is a multi-ethnic developing country with a dispersed rural population, some in remote areas and some in small towns. Rapid environmental, economic, social and cultural changes are affecting people's lives. Poverty can be a cause and effect of mental health problems. Increasing social gaps are inducing stress, family tensions and social violence, thereby affecting mental health, particularly in urban areas. Moral values based on solidarity as well as Buddhist teaching and practices such as meditation are useful and should be promoted.

In the mountains, the construction of dams and deforestation, and the forced displacement of villages, are affecting the traditional way of life and economy of some minority groups and leading to increased concerns about the future. Development projects should address these concerns, promoting cultural and linguistic diversity along with modernisation.

Apart from the two psychiatric clinics in the capital, mental health issues are not being addressed by health services. A short curriculum is taught to medical students at the Faculty of Medical Sciences and to nurses, but most medical professionals and common people do not have a general understanding of the meaning or significance of psychiatry, psychology, or mental health. Understanding of the causes of mental health is different according to the different socio-professional categories or class, but belief in spirits and magic is very strong. Sensitivity to these beliefs and the role of the healers is important because they have a palpable influence on the health-care seeking behaviour of patients and families in the community.

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psychology, or mental health*

Treatment of the mentally ill often includes various kinds of traditional medicine and exorcism of spirits. Western medicine is not excluded, but there are problems with its use as side effects are not well understood. In addition, people may not be aware of the frequent need for long-term if not life-long treatment.

As well as drug addiction, against which the government has been committed for some years already, epilepsy is also a serious and common problem due to the lack of appropriate treatment. Schizophrenics, if they become violent, may be chained at home for their entire life, as no treatment is usually available. The use of Valium or other similar psychoactive drugs as self-medication is often reported but the degree of dependency is unknown; access to rational use of psychoactive medicine is essentially not available outside Vientiane.

Whatever the burden, the family and community response to mental health problems seems to be supportive and integrative. Even where the mentally ill are chained, this seems to be done where there is no other option and no case of inhumane or bad treatment has been reported. Any intervention should be careful to reinforce family intervention but also to inform relatives that positive stimulation could bring some improvements.

Priorities

Attention to the following actions would improve the situation of the country's mentally ill and so contribute to the country's overall development and well-being.

- Raising awareness of policy matters: mental health has to be promoted by development planners and advisory bodies as an integral part of national development and social mobilisation for health.
- Training and increasing the awareness and skills of medical professionals, community leaders, mass organisations, teachers, monks, traditional healers, social workers, and NGO staff in mental health issues in their socio-cultural context. Mental health goes beyond drug abuse and should be addressed as such.
- Gathering more information and starting research about mental health issues.
- Implementing integrated, pluralistic, global care and services at village, district, and provincial levels, and considering innovative projects in the region as well as establishing inter-ministerial links.
- Improving access to care and rational use of psychoactive medicines, including patient follow-up and outreach work.
- With the Ministry of Labour and Social Welfare, establishing rehabilitation and professional skills programmes for people suffering from mental retardation and intellectual disabilities.
- Reinforcing the inclusive schools programme of the Ministry of Education.
- Promoting inter-sectoral cooperation within different ministries with a national committee.

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Full versions of this survey report can be sent on request (in Lao and English).

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Wetlands and Aquatic Food Resources in the Lao PDR: A Case Study from Attapeu

by Richard Friend, Eric Meusch, Simon Funge-Smith and Jintana Yhoun-Aree

Considerable opportunities exist in Laos for improving rural livelihoods, family nutrition and health through the management of aquatic resource biodiversity, wetlands, and water resources. However, the full significance of these resources is often overlooked, while gathering data on them is challenging as the harvest of aquatic resources is a highly seasonal and opportunistic activity. This paper draws on a participatory assessment that puts aquatic resources in the context of wider livelihood strategies. The resources are of particular importance for poor and vulnerable people and are a key part of traditional coping strategies for periods of rice shortage. Improved management of aquatic resources may lead to significant livelihood benefits.

There is growing interest in the Lao PDR in using wild food resources to address food security and poverty alleviation issues. While considerable emphasis is placed on rice security, both as a key development strategy for poverty alleviation and as an indicator of poverty and vulnerability, local livelihoods usually depend on rice and a range of other resources, including aquatic life. How can these wild foods be included in poverty-focused interventions? While considerable work has been undertaken on the role of non-timber forest products in rural livelihoods in Laos, there has been relatively little effort to address the use of aquatic resources, which remain largely invisible to development planners.

Of particular importance is the relationship between rice and aquatic resources, which include fish, amphibians, some reptiles, various invertebrates (prawns, crabs, snails, insects) and numerous varieties of wild aquatic plants. Increased rice production is one of the main priorities of national development policy, but intensifying rice farming through conversion of wetland areas, development of irrigation systems, and the use of high-yield varieties and supplementary inputs can have negative impacts on wild aquatic resources. While there is clearly a need to improve rice production, it is equally important to ensure the continued viability of the wild aquatic resources found in rice fields, floodplains and adjoining wetlands. The loss of these resources will not necessarily be offset by increased rice production, and may have a greater impact on poorer people. Moreover, there are considerable opportunities for improving food security and nutrition through managing these aquatic resources.

This paper is largely based on a participatory assessment of the nutritional value of aquatic resources in rural livelihoods, undertaken as a joint initiative between IUCN, FAO and LARReC in Attapeu province (see Meusch et al, 2003). The assessment was carried out during two missions by a multi-disciplinary team in three Attapeu villages. The study applied a range of participatory methods to identify aquatic

species and habitats, but also in order to open discussion with local people about the contribution of these resources to household food security.

Invisible Resources

Despite the diversity of living aquatic resources in Laos, their significance in local livelihoods and their potential for poverty alleviation and national development has often been overlooked. Evidence of the importance of fisheries and aquatic resources in the livelihoods of Lao people can be found in many forms – the ubiquitous *padek* (fermented fish paste) that accompanies most meals, the vast range of fish traps found in markets, and the large numbers of people who can be seen fishing or foraging in canals, streams, floodplains and rice fields throughout the country. Much of the range of aquatic resources can be seen in the markets of Vientiane: apart from all the fish species there are also frogs, insects, crabs, molluscs, shrimps and a whole host of aquatic plants.

*Loss of aquatic resources will not necessarily be
offset by increased rice production*

Lack of information on aquatic resources is recognised as a constraint in Laos and the Mekong region as a whole (Souvannaphanh et al, 2003). A recent review undertaken by FAO (Coates, 2002) has pointed out that current information on fisheries and aquatic resources in the Mekong region is seriously limited. The review found that traditional methods for assessing the production of aquatic resources have had limited success and that there is an urgent need for improved approaches to collection and analysis of data. The very nature of these resources and the ways in which they are harvested pose significant challenges to information gathering. Aquatic resource production is highly seasonal and variable from one year to the next. This diversity is not easily captured in normal assessment approaches and considerable investment would be required to improve information systems (Souvannaphanh et al, 2003).

To assess their significance, aquatic resources must be placed in the wider context of livelihood strategies. Rural households are engaged in a wide range of activities that all contribute to their livelihoods and well-being. In Attapeu these activities include rice farming, raising livestock, and home gardening. This diversity is essential for coping with the seasonality of agricultural production as well as the availability of other resources.

Few people in Attapeu consider themselves ‘fishers’. Like most rural dwellers, they rather consider land owning and farming as their primary occupations. However, a great many engage in at least some form of fishing activity or aquatic resource harvesting. In addition, a significant proportion of time is spent making and repairing fishing gear, and in processing catch. Women and children are actively involved in these activities. The vast majority of aquatic resources harvested are consumed within the household, with only a small proportion of higher value species and specimens reaching the market. Thus their economic value is not immediately apparent and is difficult to calculate.

Study Villages

The study was carried out in three villages in Attapeu province. While the full range of the assessment's findings is presented in the original report, this paper concentrates on the implications for biodiversity and food security.

Tamoyot

Tamoyot is a fairly remote village in Sanamsai District, consisting of 28 households and approximately 158 people, mostly from the Su ethnic minority. The villagers make a living growing upland rice and foraging in the forest and wetlands. Food shortages are common, and many households only produce enough rice to last a few months: people rely heavily on fishing and foraging in local streams and swamps to support their livelihoods. There has been an effort to promote paddy rice production, but these people are reluctant to make the changes required to shift from their traditional upland cultivation.

Saisi

Ban Saisi, in Xaisetha District, is located on the banks of the Se Kamon River. The village has a long history and is currently home to 200 households with a population of 1,062. The ethnic Lao villagers make a living from paddy rice, growing vegetables, and fishing in the Se Kamon. They have easy access to the provincial and district towns and therefore good links to markets. Most families produce enough rice for consumption and some have a surplus for sale. However, many suffer from rice shortages in certain months and have to rely on alternative sources.

Gayeu



Gayeu Village, Samakhisai District, is located near the provincial town on the main road to Sekong and Pakse. The village has 78 households and 428 people, mostly from the Oyi ethnic minority. Gayeu is located at the foot of a mountain, on the plain between the mountain and the Se Kong River. The villagers have a highly developed system of terraced paddy fields that extend to the foot of the mountain. Although this rice land is considered productive, many households still experience shortages of food. They supplement their livelihoods by fishing in a nearby oxbow lake and in the river, and have developed unique trap pond systems in their paddy fields.

Main Findings and Implications

Relative Importance of Collecting Aquatic Resources

In such villages many sources contribute to overall food security and livelihood strategies cover a wide range of resources. To assess the relative importance of aquatic resources and different food sources for people of different wealth status, the study asked the villagers to develop their own definitions and indicators of wealth and poverty and to identify which households fit into the different wealth categories. While the criteria differed between the three villages, common factors in determining wealth and poverty included food security and availability, livestock ownership, type of house, and labour available within the household. The villagers were then asked to rank their livelihood activities in order of priority, and their replies were sorted into the different economic groups they had assigned to themselves.

Table 1: Priority of Activities

Men from better-off households		Women from better-off households
<ul style="list-style-type: none"> • rice production • food preparation • clearing production land • raising livestock • collecting fire wood • carrying water • fishing • cutting lumber 		<ul style="list-style-type: none"> • rice production • collecting fire wood • carrying water • raising livestock • food preparation • milling rice • fishing • gardening
Men from worse-off families		Women from worse-off families
<ul style="list-style-type: none"> • rice production • food preparation • raising livestock • collecting aquatic animals • fishing • gardening • clearing production land 		<ul style="list-style-type: none"> • food preparation • collecting aquatic animals • raising livestock • fishing • gardening • rice production • child care

Source: Meusch, 2003

While the activities are largely the same among the different wealth groups, their relative importance differs markedly, as indicated in table 1. Most significantly, men and women from ‘better-off’ households attached relatively low importance to fishing and did not even include collecting aquatic animals in their list of priority activities. In contrast men and women from ‘worse-off’ families considered both these activities to be priorities, with greater importance attached to ‘collecting aquatic animals’.

Many aquatic environments have great significance for poorer people, who have less access to private land

The Species

Although rural people find it difficult to calculate their own aquatic resource production, they are consistently able to identify a wide range of species that are regularly consumed. In Attapeu, local people referred to fish, eels, frogs, freshwater shrimp, snakes, snails and turtles. The availability of these resources differs between the villages, with 66 species reported in Tamoyot Village and 102 species identified in Saisi.

Table 2: Numbers of aquatic species reported (Meusch et al)

	Tamoyot	Saisi	Gayeu
Fin fish	61	102	95
Crustaceans	3	6	6
Molluscs	4	7	6
Amphibians	8	14	6
Reptiles	8	10	5
Insects	-	7	7
Aquatic plants	19	16	31

Other aquatic animals that were reported included several species of crab, shrimp, frog, shell fish and turtle, and various types of insects. In some cases, these animals (especially frogs, shrimps and crabs) are as important to household consumption as fish.

Aquatic Environments

A wide range of aquatic habitats are utilised in Attapeu including rivers and perennial streams, perennial ponds, marshes and oxbow lakes, seasonal ponds and streams, and also rice fields. Each of these environments supports particular aquatic organisms and is targeted in specific ways by local people.

The rivers and perennial streams are important habitats for a wide range of fish and aquatic animals. The nature of these environments means that harvesting their resources often requires a relatively high degree of specialisation, with additional investment in gear, boats and labour. Those that are not able to make these investments are restricted to less intensive fishing along the edges of the rivers. The remaining aquatic environments are more accessible using less specialised gear and so are of particular importance for poorer people. As common property resources, many of these aquatic environments again have great significance for poorer people, who have less access to private land.

Rivers and Perennial Streams

Rivers and perennial streams are key features of the Attapeu lowlands and are very important sources of fish and other aquatic produce. They are characterised by large amounts of water and sustain a range of organisms throughout the year. They experience huge annual fluctuations in volume and flow between the rainy and dry seasons. Being permanent, they serve as a dry season refuge to a broad range of fishes and aquatic animals, and also provide habitat to a number of species that are strictly riverine.

Due to the changing environment caused by fluctuating water flows, and the seasonal activities of fish, fishing in rivers requires specific knowledge and equipment. Households that lack the means to purchase boats and equipment, and the labour (typically strong males) to use special gear, are limited to river edges during periods of lower water, and to assisting others during peak fishing periods. Those who can fish in the river are subject to seasonal scarcity, but are able to access at least some fish throughout the year.

Perennial Ponds, Marshes and Oxbows

Perennial ponds, marshes and oxbows, common in the lowland floodplains of Attapeu, receive excess water during the rainy season and hold it throughout the dry season. These water bodies are usually shallow and vary greatly in size over the course of the year, expanding during the rainy season and receding during the dry season. In many cases, they function as 'water stores', receiving water directly from a rising river or stream during the rainy season, and then draining back into the river or stream as the water level drops.

These water bodies serve as refuges for fish and other aquatic organisms during the dry season. The key species are categorised as 'floodplain fishes' to differentiate them from those found in rivers and streams (though some riverine fish do remain trapped in these bodies when the water recedes following periods of flooding). The water is relatively fertile and shallow in these areas, and many types of aquatic plant and non-fish organisms like molluscs, crustaceans, amphibians and reptiles are typically abundant.

Fishing in perennial water bodies such as ponds, marshes and oxbows is typically less specialised and requires less investment than river fishing does. When the water recedes and seasonal water bodies have dried up or been harvested, people turn to permanent bodies with various types of gear, including small-scale household gear. Since these water bodies are typically shallow, they are easy to access with small gear and are conducive to collecting aquatic plants and animals by hand. As such, they are often of particular importance for poorer people.

Rice Fields, Seasonal Ponds and Seasonal Streams

These water bodies make up a very important and often overlooked source of aquatic resources. In the lowlands, seasonal rains inundate wide areas for much of the year, typically from June until October. Fish from perennial water bodies migrate out to take advantage of these newly-created water bodies for feeding and reproduction. Migration takes place through seasonal streams that drain the plains into the rivers. Fish use these streams for both dispersal at the beginning of the rainy season and for return migration at the end of the rainy season. Rice fields and seasonal ponds play a similar role in local hydrology in that they hold water higher in the watershed for longer periods than would otherwise be possible.

Several species of fish and aquatic animals have evolved to take advantage of these temporary aquatic environments. At the beginning of the rainy season they quickly disperse and reproduce (or in some cases reproduce and disperse) to fill the empty ecological niches in the newly inundated areas. Very soon after the rains begin, the newly developed systems are populated with various organisms that have been dormant or relatively inactive in permanent water bodies during the dry part of the year.

A great deal of household fishing activity is focused on these temporary water bodies from the beginning of the rainy season (June) until they dry up (from November to January). Much of this harvesting is done with simple inexpensive gear, requires few specialised skills, and is accessible to poorer people. Fishing effort focuses on migration pathways to and from water bodies, and can be especially productive when fish are moving out of the floodplain back to permanent water bodies.

Maintaining Food Diversity and Security

Food security is not only about availability of foods but also variety and quality of food sources. In most areas of Laos, aquatic animals constitute the main source of animal protein in what is generally a protein-poor diet. The availability of aquatic resources is thus an important factor in determining food security and nutritional well-being. For many people, aquatic resources constitute the main coping strategy for dealing with periods of rice shortage. However, there are no viable alternatives to these aquatic resources and no coping strategies for dealing with shortages of them. Any degradation of these resources is therefore likely to have further significant impacts on an already fragile health and nutritional status. Once again, the impacts of any decline in aquatic resources are likely to be felt most severely by poorer people.

Although degradation of aquatic resources is difficult to verify, in Attapeu the view that they are in decline was commonly voiced. A number of explanations were provided for this, such as growing pressure due to population growth, more widespread use of modern gear, increased market penetration and growing demand for aquatic resources, and also environmental degradation. Greater weight was given to increased fishing effort than to environmental damage.

While aquatic resources constitute the main coping strategy for dealing with rice shortage, there are no coping strategies for dealing with shortages of aquatic resources

Managing both human fishing effort and aquatic environments is essential. Aquatic resource production depends on a number of factors. Maintaining habitats that are important for breeding, spawning, migration and dry season refuge is critical for ensuring the viability of aquatic resources. This has implications for local land-use planning and agricultural development strategies. Increasing rice production through the conversion of ponds, marshes and other floodplain resources may have impacts on wild aquatic resources.

While the discussion of aquatic resources and fisheries tends to focus on the potential threats of degradation, there is also considerable potential for improving rural livelihoods through the wise management of aquatic environments and resources. Protecting important breeding and spawning grounds and dry season refuges may not only prevent degradation but could also increase production. Although there is considerable local experience of managing these resources, there have been few development initiatives that have aimed to harness this knowledge.

Implications

Aquatic resources and rice are both fundamental to food security, nutrition and health. As the main animal protein source in protein-poor diets, aquatic resources are vital to maintaining people's health and well-being. Aquatic resources tend to be managed as common property, and are of particular importance for poorer people who have less access to land and less capital to invest in improved rice production. Management of water resources and aquatic environments is therefore essential. While increasing rice production is important and necessary, care should be taken to ensure that this does not have negative impact on wild aquatic resources. Equally the potential for improving food security and health through sustainable management of aquatic resources should be explored.

The Attapeu study illustrates the fundamental importance of a range of livelihood activities and resources to rural people. Although the role of aquatic resources is highly important, assessing their full significance requires an understanding of wider household livelihood strategies. Local participatory approaches are most appropriate for monitoring and assessment, along with supporting consultation about appropriate management.

Reliable information on the economic value of aquatic resources is essential for policy makers and development planners when assessing different development options (Souvannaphanh et al, 2003). Assessment of the economic and nutritional value of aquatic resources, combined with economic analysis of the viability of alternative food sources, would provide important evidence of their full value and contribute to assessing development options.

Integrated aquatic resource management for poverty alleviation requires a level of cross-sectoral coordination that has rarely been realised

There is already some experience in Laos and the Mekong region of managing critical aquatic environments, including dry season refuges, breeding and spawning grounds, and rice fields, in order to ensure the sustainability of stocks. For example, farmers in many parts of the region traditionally set aside small water bodies in or adjacent to their rice fields. This practice provides local dry-season habitat that helps maintain stocks of aquatic resources during the dry months. These then repopulate the rice fields and floodplains when the floods arrive. Opportunities for testing these initiatives in Attapeu should be explored and pursued.

There are significant institutional implications for managing aquatic resources in an integrated manner. Current responsibilities lie with different government agencies. While food security largely falls under the remit of the Ministry of Agriculture and Forestry, health and nutrition is under the remit of the Ministry of Public Health. To complicate matters further, within the food security sector aquatic resources, water management, irrigation and agriculture all fall under the responsibility of different

departments. The fisheries sector itself tends to focus on commercial fisheries and aquaculture, and there is very little recognition of wild aquatic resources. Applying an integrated approach to aquatic resource management for poverty alleviation will require a level of cross-sectoral coordination that has rarely been realised.

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Assessment of Rural Water Supply and Sanitation Services Installed in the Lao PDR

by Sisavanh Phanouvong and Ving Sengsirichanh

In 2002 an assessment of previously installed Rural Water Supply and Sanitation (RWSS) services was made in 38 villages across eight Lao provinces. The study used the Methodology for Participatory Assessments to help communities identify the strengths and weaknesses of their RWSS services. The findings from the assessment revealed many important issues: 60% of studied villages judged the sustainability of their improved water supply services as being moderate to high. However, more than three out of every ten households do not take full advantage of these new RWSS services. The results of this study are being integrated into on-going and future implementation of RWSS projects in the country.

The stated aim of the Government of the Lao PDR, to quit once and for all the status of least developed country by the year 2020, is synonymous with eradication of mass poverty by ensuring economic growth with equity. This vision includes the goal of improving national water supply coverage to 90% and sanitation to 80% by the 2020 target date, in line with the National Growth and Poverty Eradication Strategy.

The National Centre for Environmental Health and Water Supply (commonly known as Nam Saat) under the Ministry of Health is responsible for providing improved rural water supply and sanitation (RWSS) services. In 1997, a sector strategy for RWSS was developed, which was refined in 2004 based on learning from field application. The strategy stresses that improved services must be used, must be sustainable, and must have an impact on the communities they serve. In order to determine the extent to which the strategy is succeeding, Nam Saat launched a study to assess the current conditions of facilities installed through earlier investment. Specifically, the study endeavoured to answer the following questions:

- Are improved facilities still in working condition?
- Are the poorest of the poor, and women and children being properly served by these improved services?
- Are villagers using improved water supplies for drinking and cooking?
- Why do some systems fall into disrepair quickly and others last for a long time?
- Are all the efforts cost effective?
- Do people really use latrines?
- Are people changing their hygiene behaviour after accessing improved latrines?

Process

The study used the Methodology for Participatory Assessments (MPA) to help communities identify the strengths and weaknesses of their water supply and sanitation services. This represents the first attempt in the Lao PDR to assess the use and sustainability of RWSS services through a nationally-led participatory process. Led by Nam Saat and assisted by sector partners, the assessment took place between March 2001 and March 2002 and included the following activities:

- Consultation workshop for reaching consensus on the methodology of the assessment.
- Developing, tailoring and translating the assessment tools.
- Training workshop and field testing of the methodology in selected villages.
- Establishing field teams to carry out the assessment.
- Field assessment in 38 villages across eight provinces.
- National consultation workshop to share findings and lessons learned.
- Integrating learning into on-going and future RWSS Projects.

What is MPA?

Methodology for Participatory Assessments (MPA) is a comprehensive method for social assessment.

It recognises the importance of gender and poverty sensitive approaches.

It monitors key indicators of sustainability and demand-responsiveness.

It is a learning process for all stakeholders.

It uses participatory tools at all levels.

It allows for a holistic analysis, relating institutional and organisational factors to outcomes at the community level.

It is multi-faceted, and can be applied in different settings and with different technologies.

Location

The following criteria were prepared and applied in selecting the villages to be studied:

- Past installed RWSS interventions.
- Various technology options for water supply.
- Various levels of remoteness.
- Predominance of ethnic minorities.
- Support received from different donors.

The villages were also chosen to represent the different regions. In the north, sites in Luang Namtha and Bokeo provinces were selected; in the central region the villages were in Xayaboury, Xieng Khouang, Vientiane and Bolikhamxay provinces; Attapeu and Champassak provinces represented the south.

Procedure

The field team comprised district, provincial and central Nam Saat staff, and representatives from line agencies, NGOs and External Support Agencies. Members of the community assessed their water services through a participatory process, facilitated by the field team. In each community, the following steps were carried out:

- Community social inventory.
- Review of the service management by the Users' Committee.
- Observation walk by villagers and field team.
- Focus Group Meetings by socio-economic status and gender.
- Community review assembly.

Main Findings

MPA studies conducted in other countries have shown that the sustainability of water supply and sanitation systems depends largely on four factors:

- Quality of system.
- Effective functioning.
- Effective management.
- Effective financing.

Villagers' assessments of their systems were used to give a score for each of these factors. With a maximum of 100 possible for each criterion, the maximum score for overall sustainability is 400 in each community.

Water Supply Systems

More than 60% of the participating villages judged that their water supply systems operate at an acceptable standard of sustainability. Twenty communities gave their systems moderate to high scores, while only three communities (8% of the sample) thought they have solidly sustainable systems (i.e. with scores more than 300). In these cases, communities gave high marks for all four factors. Twenty communities (53%) rated all four sustainability factors as being moderate to good (scores between 200 and 300) but the remaining 15 villages (39%) gave low ratings, suggesting poor levels of sustainability.

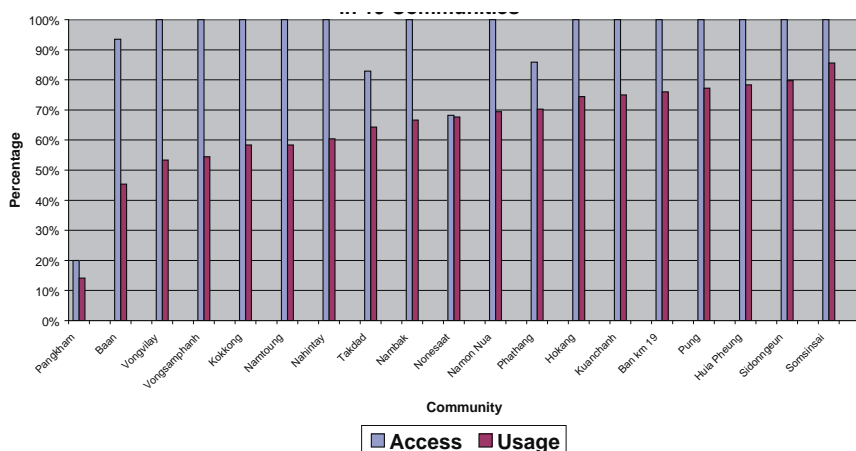
By breaking down the assessment into four factors, the strengths and weaknesses of the systems become visible:

1. Most communities (36 out of 38) believed that the quality of their systems was generally good. Only two communities felt the technical design of their system to be unsatisfactory.
2. Effective functioning (the quality and quantity of water supply) was also acceptable to most communities. Only 21% of the villages described the effective functioning as poor.

3. Scores on effective management were found to be low. About 55% of the communities rated this factor of sustainability as unsatisfactory. Various reasons were given for this situation, such as:
 - a. No formal management committees (none had been set up in 28 of the 38 villages);
 - b. Where formal committees do exist, their capacity is insufficient. Members do not have clear roles or responsibilities and most lack knowledge on operation and maintenance issues.
4. Overall scores for effective financing were also low, with 60% of the villages judging this factor as unsatisfactory. There are many reasons for this poor performance, the most dominant being:
 - a. 26 of the 38 villages do not have user fee systems;
 - b. Where payment systems do exist, fees are too low to cover operation and maintenance costs;
 - c. Lack of remuneration or incentives for the management committees.

Access to improved water supply systems does not necessarily mean that the systems will be effectively used. Findings from this assessment show that the effective use rate across the villages is substantially lower than the access rate. On average, more than three out of every ten households do not take full advantage of the protected water sources for drinking and food preparation. Overall, average effective use throughout the 38 communities stood only at 67%. Figure 1, which samples half these villages, shows that simply counting the numbers of households with access to protected water supplies may not give a true representation of how these water supplies are being used.

Figure 1: Access and Usage of Improved Water Supply Services in 19 Communities



Sanitation and Hygiene Behaviour

For the assessment of latrines, households were economically stratified through a participatory mapping exercise to identify higher-, middle- and lower-income households. With facilitation from the team, the villagers decided which household fitted into which category. People then went through a voting exercise to indicate their opinions on latrine use. In addition, eight to ten households in each village were randomly selected for a visit and inspection of their latrines, to judge cleaning regimes, use of soap and water, and so on. This assessment was applied to only 37 of the communities as in one village no latrines have yet been constructed.

The exercise revealed that household income is a major factor behind level of access to latrines. Poor households in each of the 37 villages clearly have less access to latrines than their wealthier neighbours. Based on this observation, two issues need to be addressed by future latrine installation programmes: selection of technology and transportation costs. The latrines in question were mainly pour-flush latrines with concrete ring lining. These are difficult for poorer households to afford. The problem of transporting materials to remote villages for construction of concrete rings is another factor. Offering various types of lining and construction options more suited to local conditions may improve the situation.

About one-third of the latrines are being regularly used and maintained effectively

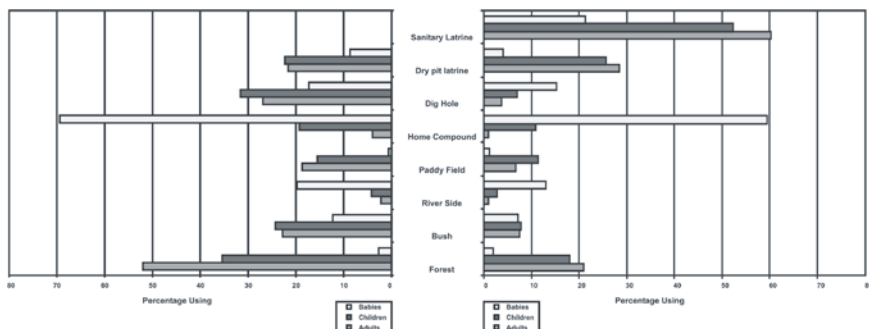
Subsequently the study tried to compare access to and effective use of already-constructed latrine facilities, examining family behaviour by age and gender groups before and after the latrines were built. The vast majority (83%) of households with latrines claim to be using them regularly. It is also crucial to observe whether latrines are being kept clean. To check the hygienic environment of latrines, the assessment team randomly examined eight to ten latrines in each community and encouraged family members to assess their own latrines with a common set of indicators. The assessment found that about one-third of the visited latrines are being regularly used and maintained effectively.

The findings revealed that before installation of latrines, the majority of villagers disposed of faeces unhealthily, choosing places such as bushes, riversides, paddy fields or home compounds. After installation of improved latrines, frequency of unhealthy disposal of excreta went down by more than 50% as significant numbers of people switched to using the new sanitary latrines. However, no significant behaviour change has occurred regarding disposal of baby faeces. Regardless of latrine facilities, families seem to think baby faeces are harmless and therefore continue poor disposal habits (see figure 2).

Overall, the assessment found that behaviour change on use of latrines depends on:

- The access to latrines.
- A person's own willingness to use the facility.
- Personal perceptions of excreta and its links to disease.
- Technical aspects, such as availability of water (in case of pour-flush latrines).

Figure 2: Community sanitation before and after latrine installation



Community Perceptions of the Benefits of RWSS Services

In separate women's and men's groups, participants from all the villages expressed their perceptions of the benefits of water supply and latrines.

The benefits most often mentioned for water supply were as follows:

- Convenience (having water close to home, easy access to water while using latrine, easy access to water for pregnant women).
- Improved health and reduced disease.
- Subsequent economic benefits, such as increased vegetable production and sale.
- Less labour and time used collecting water.

The benefits most emphasised for latrines were:

- Comfort and convenience (sheltered from rain and sun, and time saved).
- Improved health and protection from disease (long-term benefit).
- Clean and hygienic (short-term benefit identified as an immediate reaction by villagers).
- Protection from animals and insects.
- Privacy.

Sustainability: Two Examples

Externally decided interventions lead to low

Nonsaat is a village located about 60km from the district town of Champassak in southern Laos. It has a population of 882 people living in 173 households. For several years the village drew water from four boreholes using Tara hand pumps provided by UNICEF. These four boreholes provided the whole village with enough water for drinking and cooking purposes. In 1998, Nonsaat was selected by an NGO for a rural piped water distribution system, with water to be supplied from a new borehole using an electric pump. The scheme was constructed and supervised by the project staff. The community had very little involvement in the construction of the system, though they did contribute labour and local materials.

Operation, including billing and collection of user fees, and maintenance were taken care of by two male villagers chosen by the project. The system went smoothly for the first year. However, during the second year part of the pipeline was broken during the construction of a road. No-one knows who is responsible for getting the system repaired and the villagers have returned to using water from the old Tara hand pumps and a natural swamp.

Community voice and choice lead to high sustainability

Morphu is a village in Pathumphone District, also in Champassak Province. The village has about 1,000 people and 174 households. In the early 1990s, Morphu received support for 17 boreholes with Tara hand pumps from UNICEF. By the late 1990s, the wealth of the community had improved and they decided to invest in a piped water scheme with household connections. In 2000 the villagers joined with a private company to construct a new piped water system with electrical pump. The private company set the initial cost for construction at 700,000 Kip (about US\$80) for each household, plus household connection fees. The company constructed the system, covering 30% of the capital costs and planning to reclaim this investment through the user fees, while the community supervised the works. After construction, the scheme was leased to the same private company to manage for five years. The company has set the user fees and hires villagers, after training them in billing and repairs. Operation and maintenance costs are the company's responsibility. There have been no complaints about the services provided by the company and no default on payment of bills. The company's success may well be due to the fact that the decision to involve it was made by the villagers themselves.

A Snapshot on the Findings

- Are improved facilities still in working condition?

8% of the schemes are fully sustainable while 39% are in moderate condition. The remaining 53% of schemes have low sustainability and require immediate attention.

- Are the poorest of the poor, women and children being properly served by these improved services?

In general improved services cover 90-100% of the whole community, but the average effective use of these services was found to be around 67%.

- Are villagers using the improved water supplies for drinking as well as cooking and other domestic chores?

Three out of ten households do not use the available protected water all the time for drinking. This is mainly due to availability of other water sources nearer to their residence or place of work (rice fields, other agricultural land etc.)

- Why do some water systems fall into disrepair and others last for longer?

The study found that lack of effective management and effective financing are the main reasons for the failure of many improved services.

Learning

As a result of the study, Nam Saat and its partners reached an agreement on the need to:

- Develop indicators for measuring sustainability.
- Re-stress management and financial sustainability issues during pre- and post-investment of RWSS services.
- Develop management options to be offered with various technology options.
- Scale-up a structured learning process in order to integrate the methodologies in all projects.

Findings from the assessment are helping some non-governmental organisations to carry out similar exercises. In addition, lessons from the work are being progressively utilised and integrated by Nam Saat into on-going and new RWSS projects financed by various NGOs and agencies.

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Measuring Public Hospital Costs and Activities

by Celine Derche, Maryam Bigdeli, Khampeth Manivong,
Sengsantisith Sanasisane and Dean Shuey

This paper reviews financial and service data from sixteen central, provincial, and district hospitals from 2001-2002. The study shows a wide variation in costs for outpatient visits, inpatient admissions, drugs and diagnostic services. Larger hospitals and busy district hospitals recoup most of their recurrent expenditure from user fees, but do not use these fees to pay their staff uniformly or consistently. Exemptions to user fees are unevenly implemented, the number of patients seen per health worker employed is low by international standards, and maintenance is inadequately catered for in budgets. User fees are critical to hospital running costs in Laos but they need to be managed well. Improved policies on setting prices for services, exempting the poor from charges, providing maintenance budgets, and improving staff productivity should be explored.

Study Background

Hospital services are an important part of any health care system, constituting the single largest part of health care expenditure. In the Lao PDR it is estimated that about 35% of the Ministry of Health budget is spent on treatment and rehabilitation, primarily on hospitals (MOH, 2001).

Lao health indicators rank among the poorest in Southeast Asia, and indeed, in the world. The Human Development Index is 0.534, which ranks Laos 135th of 177 countries (HDR, 2004). The infant mortality rate (deaths per 1,000 live births) was 82 in 1999 and the maternal mortality ratio (deaths per 100,000 live births) was 530 in 2000 (MDG Progress Report, 2003). While these indicators have been improving, they are still high. Meanwhile, life expectancy at birth is also low, at 54.3 years in 2002 (HDR, 2004).

The main health network for curative services in Laos remains the public health care system, which consists of three central teaching hospitals, five regional hospitals including one teaching hospital, 13 provincial hospitals, 125 district hospitals, and about 705 functional health centres (MOH, 2001). However, according to UN figures (CCA, 2000), 37% of people with illness do not seek any health care and, of those who do so, only 28% get treated at governmental health care facilities. These figures indicate a low use of public health services.

Since 1975, the Lao PDR has sought to provide universal free health care for all of its citizens. However, due to financial and other constraints, services have become progressively weaker. Changes in government policy occurred in the 1980s, with the introduction of the New Economic Mechanism. Major changes in the health sector were the licensing of private pharmacies and the introduction of user fees

for drugs and diagnostic services in public health facilities (IDS, 1995). Prime Ministerial Decree 52 and MOH cost recovery guidelines were issued and implemented. Since 1995, cost recovery through user fees has increased significantly (MOH, 2000).

User fees in the public health care system have gained increasing importance in the financing of health services over the past ten years, with out-of-pocket household expenditure estimated to account for as much as 55.7% of total health expenditure in Laos. Another 35% of the health budget comes from donors, and only 9% from the government (CPC, 2003). However, introducing fees can mean a decrease in utilisation of health facilities (Jacobs and Price, 2004) and evidence also exists that unpredictable catastrophic hospital expenditure is associated with poverty (Barber et al, 2004).

The WHO Commission on Macroeconomics and Health (2001) estimated that in a poor country US\$34 per person is needed to establish a comprehensive close-to-client health care system. Today in Laos, expenditure for health is only \$12 per person.

Objectives

This study analyses the income and the expenditure of 16 hospitals, from government, patients, donors and other resources, and the cost for inpatient and outpatient services. The objectives are to compare hospitals, analyse the findings, and make recommendations for improvements based on those findings.

Methods

The study was conducted under the auspices of the Planning and Budgeting Department of the Ministry of Health with financial and technical assistance from the World Health Organization (WHO). A joint team of Ministry of Health and WHO staff members was formed to study 16 hospitals: four central/teaching hospitals, seven regional/provincial hospitals and five district hospitals. This sampling frame included all of the country's central and regional hospitals. Three other fairly busy provincial hospitals were also selected, one from the north, one central, and one in the south.

The team visited the hospitals to collect data on income, expenditure, service provision, and staffing. The data was for the 2001/02 fiscal year (October 2001-September 2002), which was the most recent complete fiscal year for which data was available at the time of the study. A major constraint to the process was that due to the lack of data disaggregated by units, the study had to develop indirectly derived allocation keys to separate income and expenditure between inpatients and outpatients.

Findings

Because of the wide difference between hospitals, findings are presented by central/provincial and regional/district hospitals, with the minimum and the maximum value for each variable. Recurrent expenditure from Lao sources, i.e. hospital income derived from government or patient fees, was used to calculate costs per unit of service. A unit of service is either one outpatient visit or one hospital day.

Since different hospitals define outpatient visits (OP) and inpatient admissions (IP) differently, the unit of service may be a more reliable indicator for comparison than OP and IP. Because the donor contribution was extremely variable and not completely known to the management of the hospitals, the analysis was restricted to Lao sources of income. As in other similar works (Mills, 1993; Flessa, 1998), this study shows a wide variation between different hospitals in the charges made to both inpatients and outpatients. All amounts of money are presented in 10,000s of Kip, which is very close to US\$1 and is therefore easy for international comparison.

Average Costs

Table 1: Recurrent costs from Lao sources per various units of service

	Central Hospitals	Provincial or Regional Hospitals	District Hospitals
Number of OP visits	45,207 - 143,435	9,459 - 56,830	1,561 - 12,092
Kip per one outpatient visit	2.45 – 5.18	1.85 – 5.69	1.76 – 8.82
Number of IP days	16,116 - 118,667	14,318 - 67,792	802 - 9,810
Kip per one inpatient day	3.73 – 10.22	2.33-6.36	0.87-4.90
Kip per one inpatient admission	17.53 – 49.37	11.66 – 26.90	2.59 – 18.54
Total unit of service	61,323- 217,290	24,588 - 133,599	2,683 - 20,128
Kip per unit of services	2.95 – 6.01	2.09 – 5.28	1.55 – 6.32

Prices are indicated in 10,000s of Kip, approximately equal to US\$1

Table 1 shows a wide variation of costs per unit of service between levels of facility. There is also a wide variation of costs between hospitals within each group. For example, the price for one unit of service in district hospitals varies from \$1.55 to \$6.32. Outpatient services are less costly than inpatient services. 84% of projects were planned according to the participatory method, with 88% planned locally, inside Laos.

Hospitals Highly Dependent on User Fees

Table 2: Recurrent Expenditure from Lao Sources in Kip

	Central Hospitals	Provincial or Regional Hospitals	District Hospitals	
Total Recurrent from Lao sources (10,000 Kip)	181,149 – 1,186,307	59,588 – 393,555	13,791 – 52,712	
Source	Government (%)	17 – 25	25 – 52	32 – 85
	Patients-1 User fees(%)	74 – 83	51 – 75	15 – 68
	Patients-2 Capitation (%)	1.0 – 5.0		

There is a wide variation in the proportion of budget supplied by the government, varying from a low of 17% to a high of 85%. Most of the income is derived from user fees (patients). In the central institutions, the user fees contribution to recurrent expenditures ranged from 74 to 83%, meaning that central hospitals are highly dependent on utilisation levels. In district hospitals the government contribution is higher (32 to 85%) but in the busiest district hospital the percentage of income from fees is the same as in provincial/regional hospitals. Any active hospital depends on user fees.

The source of capitation payments is the Social Security Organisation, which covers formal private sector employees. At the time of the study this was running in Vientiane only but it will eventually be in operation nationwide. User fees come from several sources including revolving drug funds, laboratory, radiology, room charges, and a myriad of other charges that vary greatly from hospital to hospital.

Government contribution to recurrent expenditure is used overwhelmingly for salaries: in central hospitals, from 76 to 94% of the total government input to expenses goes towards staffing costs. The proportion is between 83 and 98% in provincial hospitals and from 39 to 95% in district hospitals.

*Funds must be found for maintenance
or recently built facilities will not last*

Maintenance is currently neglected in the Lao health system. As the size of the physical infrastructure increases, the need for maintenance will increase. Based on discussions with experienced engineers in many parts of the developing world, the authors estimate that maintenance should amount to 4% of construction cost per year. None of the hospitals reach this target. Those that do plan for upkeep allocate between 0.3 and 71% of their construction costs towards maintenance, while most hospitals have no budget line for building maintenance at all. Funds must be found for maintenance or recently built facilities will not last.

Diagnostic Services

Table 3: Diagnostic tests

Service	Central Hospitals	Provincial or Regional Hospitals	District Hospitals
Lab	16,812-233,720	3,540-73,171	151-11,258
Imaging	3,909-20,899	599-15,934	361-772
Lab tests/ unit of service	0.27-0.89	0.14-0.62	0.06-0.82
Images /unit of service	0.05-0.17	0.02-0.49	0.03-0.17

A wide variation in the number of lab and imaging exams per case exists among the different facilities. The number of laboratory analyses per unit of service is higher in Mahosot (central hospital),

Savannakhet and Khammouane (provincial/regional hospitals), than in other hospitals. There is also a substantial deviation in the number of imaging examinations (X-rays, ultrasounds and CT-scans when available). The explanation for such wide discrepancies is unclear, and cannot be explained only by differences in geographic location and transport.

Many of the variations could be due to differences in medical practice, depending on the facilities and expertise available: the laboratory departments in Mahosot and Savannakhet are very well developed and receive considerable support from external sources. There might also be a tendency to use laboratory and imaging services as income generating activities for the hospitals that have the necessary equipment. However, this study cannot detect whether the intensity of service leads to improved outcomes or just to increased costs.

Variation in Charges

Table 4: Comparison of charges for common services and drugs

Service		Central Hospitals	Provincial or Regional Hospitals	District Hospitals
Drugs	Penicillin injection 1.2 MU	0.20 - 0.38	0.20 - 0.55	0.23 - 0.42
	Amoxicillin table 500 mg	0.04 - 0.06	0.04 - 0.08	0.02 - 0.07
	Quinine injection 2 ml	0.20 - 0.24	0.15 - 0.30	0.18 - 0.30
	Salbutamol	0.020 - 0.025	0.01 - 0.03	0.02 - 0.05
Laboratory	Full blood count	1.00 - 1.80	0.35 - 1.50	0.10 - 1.20
	Malaria test	0.30 - 0.80	0.15 - 0.50	0.10 - 0.35
X-ray	Chest X-ray (Ultrasound)	1.00 - 2.00	0.95 - 2.50	0.20 - 1.50
Bed charge	Flat rate	0.30 - 4.00	Free - 0.80	Free - 0.30

Prices in 10,000s of Kip

As table 4 shows, fees charged to patients vary widely according to the type of hospital. The ratio of lowest charge to highest charge for four common medicines varied from 1.7 – 5.0. The ratio of lowest charge to highest charge for laboratory exams varied by a factor of 2.5 – 15.0 for different tests and for X-rays by a factor of 12.5. Bed charges for a routine room varied by a factor of 5.5. A review of pricing policies should be considered so that patients are treated equitably.

*A review of pricing policies should be considered
so that patients are treated equitably*

One of the reasons for the disparity in prices charged for drugs could be procurement practices. Due to the weakness of the public procurement system, hospitals are allowed to purchase drugs in private pharmacies. According to Murakami (2001), 80% of the district hospitals in Vientiane were procuring drugs from private pharmacies, where prices are variable and often high.

Low Productivity

Table 5: Staffing related to bed size and amount of services

		Central Hospitals	Provincial or Regional Hospitals	District Hospitals
No. of inpatient beds		63 – 450	60 – 250	18 - 35
No. of staff		83 – 616	88 – 288	11.0 - 40
Total unit of service/year		61,323 - 217,290	24,588 - 133,599	2,683 - 20,128
Total staff per bed		1.32 - 2.61	1.12 - 1.71	0.61 - 2.06
Unit of service per total staff		238 - 739	214 – 483	187 - 347
Unit of service	* Staff Hi+	2.8 – 5.6	3.06 – 6.51	
Per staff per day	Staff M	1.6 – 4.2	2.08 – 3.2	
Bed occupation		60 - 70%	52 - 74%	12 - 27%

*Staff: Hi+ - High level and expert staff (doctors, dentists, pharmacists, expert specialists);
M – Medium level staff (medical assistants and 3 years nurses)

The hospitals included in the study also display variation in staffing ratios, as seen in table 5. The ratio of total staff per bed varies from 0.61 to 2.20 in district hospitals. The same ratio in central hospitals shows a 100% variation, ranging from 1.32 to 2.61 staff/bed. Units of service per total staff are generally very low. One international standard suggests that 2,880-10,560 patient contacts per year per health worker would be a normal range, a standard that Laos is far from achieving (WHO, 2001). The best ratio found here is 739, which is four times less than the minimum international standard. The unit of service per staff per day ratio shows that medium level health workers in central and regional or provincial hospitals care for an average of 2 to 3.4 patients per day. In district hospitals, medium level health workers care for between one patient every two days to six patients per day.

*The best ratio in Laos for units of service
per hospital staff is four times less than the
minimum international standard*

These figures suggest that the hospitals represented here are not necessarily understaffed but that there is an ineffective use of the current available staff. Staffing patterns are neither uniform across the country nor uniform in relation to the amount of service provided. More equitable sharing of staff might improve services. The hospital sector suffers from the relationship between low salaries and low productivity. Innovative strategies, such as performance-based bonuses, are needed so that salaries and productivity can increase simultaneously.

Occupancy rate is a quick and partial indication of the operating efficiency of the installed capacity. A tertiary care hospital operates best in the 85-90% occupancy range and small hospitals should optimally average around 70-80% occupancy (WHO, 2001). In Laos the highest rate reaches 70% in central hospitals, 74% in regional hospitals, and 27% in district hospitals. These low occupancy rates mean that the installed capacities and perhaps the staff complements are not being well utilised. This could provide opportunities to redeploy staff to areas of higher need.

Fee Exemptions

Table 6: Exemptions, Taxes Paid and Incentives to Staff from Patient Revenue

	Central Hospitals	Provincial or Regional Hospitals	District Hospitals
Kip per one unit of service	2.95 – 6.01	3.15 – 5.28	1.55 – 6.32
% of patient revenue exempted	6.1-8.5	0.3 – 11.9	0.5 - 67.2
% of patient revenue paid as tax	1.3 - 2.7	1 - 2.3	1.2 - 10.6
% of patient revenue for incentive	0.8 - 2.1	0.1 – 0.7	

Prices in 10,000s of Kip

It is clear that the hospital sector relies heavily on revenue from patients. This raises concerns about equity and fairness towards the poor and for the population in different regions of the country. The percentage of exemptions from fees compared to the total revenue derived from patient fees varies widely, going from a low of 0.3% to a high of 67%. This high rate of exemption occurs in Pakbeng district hospital, which is 85% financed by the government, a very high rate compared to the other hospitals. There is a lack of uniformity as to how much tax the government collects from the patient fee revenue of hospitals. In hospitals that reported the tax they pay, the amount of tax paid varies from 1.0% to 10.6% of total patient revenues. It is widely acknowledged that current government salaries are below the living wage. However, only three hospitals reported paying incentives to staff members from their patient revenues, with the rate ranging from 0.1% to 2.1% of patient revenues.

Discussion

Given that in Laos about one-third of household health expenditure is devoted to public facilities (Lao Health Master Planning Study, 2002), mostly to hospital care, particular attention should be given to the operation and efficiency of the country's hospitals.

The introduction of user fees is usually followed by concerns about the impact on equity of access for poor people. In the Lao PDR, unless alternative methods of financing can be found, fees are necessary to keep the hospitals functioning. 38.6% of the Lao population live below the national poverty line (NPEP, 2003), and only 0.3 to 11% of hospital patients are exempted from fees. This means that most of the people who cannot afford fees do not have access to hospitals, or will face significant financial hardship if they do use them. Thus, user fees can create “a medical poverty trap” and long-term impoverishment (Jacobs and Price, 2004; Ensor, 1996).

A clear exemption policy is needed for the poor, as is a method of financing those exemptions. Hospitals, supported by the government, have to find the happy medium between the needs for cost recovery and equity. User fees give little motivation to the staff to apply exemptions which imply a decrease in their revenues. Meng et al. (2002) report that to be effective, exemption mechanisms require both financing and regulation by the government, as well as accurate ways of identifying the poor.

Bonu (2003) suggests using “willingness to pay” to implement a sliding scale of user charges, along with an effective system of exemptions for the very poor who may not be able to pay. Another solution may lie in risk-sharing mechanisms such as community-based health insurance (Ekman, 2004) and equity funds targeted at the poor.

38.6% of the Lao population live below the national poverty line but only 0.3 to 11% of hospital patients are exempted from fees

Another striking result of the study is the low productivity of the health workers in public facilities in Laos. A study in Cambodia conducted by Barber et al. (2004) shows similar results and suggests that a reorganisation of human resources is needed and that adequate remuneration would provide staff with an incentive to focus full-time on their positions and to improve the quality of care. They propose performance-related bonuses based on individual commitments, presence at work, and quality of performance. It is well known that increasing the quality of care will increase utilisation of facilities. However, according to Lewis et al (1996), if there is a lack of management and supervision, incentive mechanisms cannot be adequately designed. As this present paper points out, information systems in Lao hospitals are inadequate and policy makers do not therefore have the tools and necessary information to make rational decisions on hospital management.

In many developing countries the growth in maintenance is far behind the rate of increase in medical equipment use (Cheng, 1995), and urgent attention to maintenance services is required, both in terms of infrastructure and human resources. Mein (1983) indicates that building new hospitals is not always the adequate response to patient use and a more relevant course is to upgrade existing buildings. In Laos, donor money could be allocated to maintain both physical structures and human resources.

Conclusion

Hospitals are a vital link in the health system, and their good operation is essential if Laos is to reach the Millennium Development Goals for health, equity and poverty. Good management of both human and financial resources is needed at all levels of the hospital system. Areas that need particular attention include:

- A more equitable distribution of staff between hospitals.

- Measures to improve the productivity of health workers, perhaps through performance-based incentive systems.
- Budgeting for the maintenance of facilities and equipment.
- A more standardised approach to the procurement and pricing of medical services, particularly in regards to drugs and diagnostic services.
- A more standardised implementation of policies regarding exemptions from user fees and payment of taxation on user fees.

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The Present Economy of the Lao Huay of the Nam Ma Valley, Muang Long District, Luang Namtha

by Jacques Lemoine

For most economists, 'development' is understood as a breakaway from subsistence economy. This paper deals with the economy of a tribal society in northern Laos, a people in transition to modernity. The research shows that development occurs naturally within their subsistence economy: villagers have managed to attain many advantages of the modern world through their own efforts. This 'progress' is voluntarily restricted to keep the vital balance of the ethnic group. To these people, ethnic identity is not a 'folk luxury' item but the only economic shelter available in a multi-ethnic environment. How can they continue to develop, and to absorb the actions of outside groups, while still seeing themselves as staunch defenders of their traditional culture?

This article studies a village in a zone promised to rapid development, a transport corridor through which goods from Thailand and China transit daily. This is the Nam Ma valley, south of Muang Sing in Luang Namtha province. For the time being the road has not encroached on the peaceful existence of the nearby villages, home to various Tibeto-Burman, Tai and Yao ethnic groups. This paper focuses on a Lanten Yao village whose people are the most ancient inhabitants of the valley and offer a unique field for studying the path of economic change.

In the last few decades the state has had a strong impact on the village, where it long ago introduced its 'committee system' - an intervention that was successfully decoded into a more traditional political organisation under the village headman. More recently, the imposition of land allocation and the division of their ecosystem into land to cultivate, forest to use, and forest to be preserved, have institutionalised a rational approach to land use. The allocation of rice fields and land deeds has changed these former swidden farmers into petty landholders, a new circumstance that they enjoy and, perhaps, do not fully appreciate yet. The villagers themselves have become used to the luxuries of the modern world: electricity, motorised transport and cultivation, modern housing - all innovations that they managed to secure themselves with their own savings. NGOs have at times made certain minor interventions in water distribution, hygiene, schooling and opium detoxification. This assistance was welcomed by the villagers, but they retain a strong independence, thinking of themselves as staunch defenders of their cultural identity.

In the face of intense commercial change in the region, political intervention from central government, and the programmes of well-meaning international agencies, how will the traditional economy of these people develop?

Lao Huay - Kim Di Mun

The Lao Huay, as the Lao have called them since 1975, or *Kim Di Mun*, as they call themselves, belong to the Lanten (Landian) sub-group of the vast Yao ethnic group. In Laos the Lanten live only in the provinces of Phongsaly, Oudomxay, Luang Namtha and Bokeo, probably accounting for about 10,000 of the 22,695 Yao recorded by the 1995 Census. The Mun are sub-divided into two tribal groups: *Kim Di Mun* 'at the foot of the mountain' and *Kim Diang Mun* 'at the mountain top'. The former are found in Bokeo, Luang Namtha and Oudomxay, while the latter live in Phongsaly. According to Chazée (1999), in 1995 there were 4,500 Kim Di Mun in Luang Namtha, Bokeo and Oudomxay. Their historical links with Vietnam and China, and their own pattern of east-west migration inside Laos – never too far from the Chinese border, have made them a border population with interesting modes of adaptation and integration into the Lao state, where they arrived some 130 years ago. They have developed their own strategy for preserving their ethnic and cultural identity alongside a strong sense of Lao citizenship. When another Yao sub-group, the Mien Yao, fled the establishment of the Lao PDR in great number, the Kim Di Mun preferred to stay and managed to successfully coexist with the new authority. They quietly accepted the name of *Lao Huay* or 'Lao of the brooks' given to them by Pathet Lao officials - indeed it matched their favourite eco-niche.

Nam Ma Valley Development and Modernisation

The Nam Ma Valley runs between the plain of Muang Sing and the Mekong River. In recent years it has become the main artery for goods transport between Yunnan and Thailand. Goods from China (electronics, construction materials etc.) enter through Muang Sing and move to Xieng Kok, where they are shipped on Chinese or Lao barges to Chiang Saen in Thailand. Goods from Thailand follow the same route in reverse.

The Three Lao Huay Villages of the Nam Ma Valley

In 2001, as part of a project gathering data on Trafficking of Girls and Women in the Upper Mekong Sub-Region, a study was commissioned on Ban Pa Kha, a Lao Huay community in Muang Long. It soon became clear that the real community included two other Lao Huay settlements: Ta Fak on the other side of the Nam Ma River and Pang An, on the road to Xieng Kok. These three villages constitute a demographic and socio-economic isolate of a sort and should be studied as such. According to its inhabitants, Pa Kha is about 90 years old. Ta Fak, visited by Laurent Chazée (1999) in 1994, had a population of 82 at that time and is nearly 80 years old. Pang An's name is the only one to be found on 1982 maps, despite it being the newest of the three Mun settlements. Its people moved from nearby Huay Thu in 1973 and after more than a decade of swidden cultivation, started making irrigated rice fields on the lower slopes from 1989. Pa Kha also started to establish paddy fields at about that time. Ta Fak farmers were still practising slash-and-burn when the village was first visited by Chazée, who managed to have them included in the Nam Tiu irrigation scheme in 1993, a project financed by UNDP and UNEF.

International Assistance

Ban Pa Kha is certainly the most 'developed' of the three Lao Huay villages. Its proximity to the main road has attracted various development agencies, with the result that it now has a good water supply from the Huay Kaeo, installed by Norwegian Church Aid (NCA) and Action Contre la Faim. This contrasts sharply with Ban Ta Fak and Pang An, where women have to go and fetch water from streams. Pa Kha also has a school and a teacher, funded by NCA. Literacy for adults meanwhile is conveyed by Ecole Sans Frontières, which pays the schoolteacher's wife to teach adults, mostly women. Pang An also has a Lao schoolteacher and in Ta Fak, Ecole Sans Frontières again pays a village Mun woman to teach Lao writing.

Unlike in the two other villages, most Pa Kha villagers have been provided with small thatched latrines. NCA, in the hope of eradicating opium smoking, provides herbal medicine (mainly guava leaves) to villagers who decide to stop taking opium. Another NGO has recently distributed a couple of bicycles in the village. Some of the men use them to get to Muang Long or Pang An. Women keep going to the market on foot in groups of four or five. Some villagers criticise or refuse to use new items, such as the Chinese pedal-tiller donated by a UNESCO project. They said it was dangerous, as a Mun villager from near Namtha had broken his leg when a similar machine fell on him. The villagers assembled the machine but never used it, and it sits idle, slowly rusting under a house.

*Some villagers criticise or refuse to
use new items*

Other donations have been received with varying amounts of success. Seeds of Vietnamese corn, provided by the Muang Long agriculture office, have been set aside because the bag mentions that fertiliser, which they do not want to use, is needed. Non-Formal and Formal Education officials from Muang Long district provided the village with a volleyball net and ball. This small gift proved a lasting success, with all the young men and teenagers participating in endless games since. They also received vegetable seeds for a newly reclaimed lot of vegetable gardens by the Nam Ma. Unfortunately, in the dry season the Nam Ma flows three to four metres below the gardens and the Mun women, equipped with small watering cans, have no idea of the quantity of water necessary for this kind of gardening: their yield is disappointing. As part of an HIV/AIDS education programme under the UNESCO project, officials have provided the two teachers and the school in Pa Kha with a number of very well-designed posters and it seems that their information campaign has been well understood. However, there are no condoms available in the village.

Independent Investment

Development has not come only from external agencies. Villagers show their own ideas and endeavours for bettering their lives. For instance, in Pa Kha, Pang An and Ta Fak, the inhabitants bought small water-powered generators and installed them downstream from a small man-made waterfall, to which they can divert water at will. Every house now has access to electric power. The transmission wires

hang on bamboo poles, and plastic water pipes are used to protect them when they are run through the thatched roofs. Everybody in the villages has seen television, which can be watched in the tiny restaurants of Muang Long. In Pa Kha, a Mr Ta Paw decided he wanted a VCD player. He spent two days travelling to Meng Mang, 25 km inside China, and there bought a VCD player, a TV set, a more powerful generator to operate them, and a power stabiliser. Now Ta Paw rents and exchanges CDs in Muang Long and in the evening his house is transformed into a video parlour, where his fellow villagers and the schoolteachers come to watch movies or sing karaoke.

For transporting goods, heavy construction materials and groups of people, Pa Kha villagers use small Chinese tractor-trailers, owned by the best-off families. The mobility these provide has started to greatly expand the villagers' social space. The headman of Pa Kha, a tractor-trailer owner, recently embarked on a 300 km journey to drive his son and daughter-in-law as far as Nam Nyoung village, in Bokeo. The parents of the young woman had sent news that they were critically ill and needed their only daughter beside them.

In Pa Kha, one farmer, Ta Ang, sold two buffalos to buy a brand new power cultivator in Xieng Lap. This two-wheeled cultivator can be walked in the field and is equipped with all the cultivating accessories needed for mechanised rice farming. The headman thinks this kind of cultivator is ideal, but is unwilling to pay the high rental fee to borrow the neighbours' machine. Another option open to the village is equipping the gardens by the Nam Ma with a motor pump that would save labour and produce better yields. The chief worries though that buying the fuel required would start disputes among villagers. Both Ta Fak and Pa Kha villages use a motor paddy husker, though in Pang An most husking is done by half a dozen water-powered rice pounders placed by the side of the river. Pa Kha villagers now dream of acquiring a motor powered spinning wheel - already some women board a tractor-trailer to carry their cotton to an Akha village near Xieng Kok, where the cotton is machine-spun in exchange for a small fee. In Pa Kha there is a mechanical weaving machine, adapted from the same principle used in weaving looms. It is driven by a large wheel, manually powered by a long foot-pedal.

Architectural Modernisation

If motorisation is still limited, the impact of modernisation has become quite conspicuous in house building. A striking sight in Pa Kha is the number of 'modern' houses, of which there exist two types: houses on stilts in the shape of Lue or urban houses, and houses on the ground with cemented floors and corrugated-iron roofs. Despite the new building material, the second type preserves at least the shape of a traditional Kim Di Mun house. Old-style houses with a dirt floor, plaited bamboo or plank walls and a thatched roof, are cool in daytime and warm at night and in winter, but are slowly being replaced.

Housing change has introduced a number of innovations. Adopted features of the stilt house include wooden or bamboo floors, sometimes covered with mats, obliging all to leave their shoes down the staircase; windows with more light in day time; corner rooms in the Lue style; an open space with bedding for guests in the main room; and a separate kitchen house. It has also provided a new space under the house, where the family can store the weaving loom, the spinning wheel, the winder, the bicycle, a paper-making frame, and cultivation tools like a plough, hoes, spades and so on.

In Pang An and Ta Fak, only the respective headmen have built houses with a cemented floor and tin roof. Their houses have an unmistakable administrative feel and are indeed used as meeting rooms. In Ta Fak, it seems that considerations of comfort or health can explain an owner's choice as much as the desire to modernise or compete in status symbols with the neighbouring Lue village. It is also possible that at a subconscious level, having shifted to paddy fields, these former swiddeners are more willing to adopt the type of housing usually associated with irrigated rice cultivation. However, the dialectic of modernisation is also self-regenerating. In Pa Kha the author observed a new house on stilts being reassessed and changed back to a more traditional layout, like that of the ground housing, but with a cement floor and tin roofing.

Location

Mun house moving is dependant on the daily predictions of the Chinese almanac, and so happens at the same time of year for everyone. In Pa Kha, interesting changes have occurred recently: three houses from the uphill residential part of the village moved downhill, an area previously left to the poorest households and newcomers. As vehicle ownership grows, proximity to the road, seen as a nuisance before, may be starting to become a privilege. The road also brings goods from merchants and gifts from the NGOs. In contrast, Pang An is one kilometre away from the road, while Ta Fak's population feels landlocked on the right side of the Nam Ma River. In 2001 many villagers contemplated moving to Pa Kha and in February 2002 five households did move.

Territorial Management and Land Allocation

From the mid-1990s, state policies such as the 1996 forestry law have had a profound effect in the countryside (Chamberlain, 2002). While the three Mun villages still represent natural villages in their traditional environment (unlike some relocated villages in the valley), the intervention of the state in their economy is obvious. Each village has been allocated a territorial space, comprising forested area to be preserved, forested area and bush available for the villagers to use, and land for cultivation. In the case of Pa Kha, allocated a total of 399.3 ha, there are 152.5 ha of arable land, against 126.5 ha of protected forest, 98 ha of forest to use, 17.5 ha of bush, and 4.8 ha for the village itself. Neither Pa Kha nor Pang An claimed all the cultivation land they were allocated. In Pa Kha, the reason was that there would not be sufficient water to farm rice paddy and the crop would be disastrous.

*These former free-wandering tribesmen are
now trapped into a definite land space*

Pa Kha's headman, Ta Tut, seems to be a leader who has voluntarily chosen economic development, with careful use of NGO assistance to achieve projects beyond the villagers' capacity. The greater the village population, the more NGO visits and attention, so it seems obvious that small communities like his should expand by all means possible. Land ownership has introduced a new parameter to the

headman's calculations: territorial boundaries have an economic value they did not have before. The former free-wandering tribesmen are now trapped into a definite land space, and land ownership binds them to it. Will they become outright peasants or will they remain in a transitional stage for decades? This is not only a matter of economy but depends on the strength of their traditional culture and social fabric. Ta Tut is confident that both these will survive any economic development.

A Well-Knit Social Fabric

The Kim Di Mun have inherited Chinese clan names probably granted to them by the Chinese courts over the course of centuries. Today in Laos though, they do not maintain any kind of clan exogamy, as the Hmong do. They reckon kinship ties on the basis of a descent group of three generations only. One generation further, they welcome marriage between young people of the same clan name. There is no particular feeling of brotherhood between people of the same clan name if they are not close kin. They also easily lose track of distant ancestors, even though they keep a list of their names in the genealogy used in rituals. They all keep their own family registers for the living and for the dead, which are much more accurate than the *samano kbopkhua* (family book) they have been granted since 1995 by the administration. Houses are not clustered by clan names but rather by marriage links. A son-in-law settles his family close to his wife's parents if his own do not already belong to the neighbourhood. Kinship networks through females tie the village households together more efficiently than relations through male descent.

Demographics

In February 2002 Pa Kha village had 33 families, with an average rate of 5.63 members per family. Pang An had 27 families at a rate of 5.77 per family, and Ta Fak 16 families and a rate of 5.97 per household. Families are both nuclear and extended: in Pak Kha there are 18 nuclear families against 15 extended families, which usually consist of two couples with their children. The extended families are mostly settled uphill, with the nuclear families downhill, closer to the road and on flat land. Their houses are smaller and more traditional, built on dirt, with a thatched roof and bamboo walls. Several of these households are not self-sufficient in rice. Parents and children are often young; some couples have just moved out from an extended family and established their own houses.

At first glance, Pa Kha's population appears young and healthy, and the few old people slender and spry. Women seldom live over 55 in these communities, while there are eight men from 50 to 60 and one who is 66 years old. In the 45-50 group there are three men against two women, but in the groups between 30 and 45 women slightly outnumber men. The proportion is heavily in favour of men in the 20 to 30 groups, indicating a depletion of young women at marrying age. Many young men have married older women or widows and men say that, considering the scarcity of marriageable women, they usually avoid divorce. In the courting age group of 15-20, young women are more numerous, but some of these will marry out of the village or to elder men. What is striking is that with an equal number of male and female babies and infants, the female generation of 5-10 years shows a stronger resistance to infantile disease (18 girls to 13 boys), then is suddenly depleted, between 10 to 15 years (5 girls to 9 boys). When looking at the family structure, the story behind this population becomes clearer.

Suicide

In this village suicide by self-poisoning has taken a great toll on young females between 20 and 30 years old. 5 out of 15 women attempted suicide, though three of them survived. This astonishing suicide proportion is a measure of the strain put on young married women. When they move to the house of their in-laws they become the lowest ranking member of the family, and often feel desperately humiliated or jealous. Young married women are not the only victims of suicide. In 2002 a young man took his life in the same way after quarrelling with his uncle about work. In Pang An, a community of about the same size as Pa Kha, there were two cases of self-poisoning by young unmarried girls in 2001 and one by a young married woman in 2000.

Poverty at the Village Level

Poverty can be considered at two levels. At the village level, it encompasses various shortcomings in the general livelihood of the community as a whole. For example, during the last rice season, a disastrous full week of rain fell at harvest time, disrupting most of Ta Fak's and part of Pa Kha's economies. At the household level it highlights inequalities within the village, the reasons for these differences, and the way the community provides a measure of welfare to poverty-stricken families. Poverty has individual stories. When family heads are heavy opium smokers and cannot work regularly, they can only work as occasional hired labour to buy the rice. The village, where sympathetic kin and in-laws live, is the ultimate refuge for the poor (Chamberlain, 2002).

*Opium eradication deprived the Mun
of their only cash crop*

In times of need villagers resort to borrowing from their kin, selling pigs or chickens to buy rice, or going to work for others in the village or outside the village, for NCA for example. Mutual help is a rule for in-laws, whether at work - in building a house (which must be assembled in one day) - or when borrowing rice, money etc. Big debts should be returned, while small debts may be forgotten or left standing until the opportunity comes to help in return. If a big debtor cannot return what was borrowed, nobody lends to him any more. If the lender is not kin, then money must be returned or the family of the borrower is held responsible. The village functions as a kind of bank for the poor and the needy, as well as an employment agency: richer villagers can find opportunities to increase their economic and political power in return for their concern for fellow villagers' welfare.

The Production of Abundance

Abundance starts with self-sufficiency in rice production, especially since opium eradication deprived the Mun of their only cash crop. In a random sample of families in Pa Kha in 2001, only two extended families and six nuclear families did not produce enough rice for their annual consumption. Average

rice consumption is around 600g a day per individual. Rice is husked at the village mill, installed in 1995, with a 40% loss once it is husked. The best part of the bran is used in pig food.

In *Stone Age Economics* (1972), Sahlins depicts hunter-gatherer societies as the first prosperous societies in history and remarks that abundance does not only mean satisfying man's unlimited needs, it may also have the Zen appearance of "satisfying limited needs with limited technical means, always the same". This is exactly how subsistence economy remains for many farmers around the world. The Mun of the Nam Ma valley have this Zen view of their needs. Their attraction to agricultural development, as encouraged by state policy, and their desire to better their everyday life fall apart when important markers of their traditional culture arise. Villagers still devote much of their home industry to items that they could buy on the market but prefer to make.

*The Mun of the Nam Ma valley have a Zen
view of their needs*

To the casual visitor the Mun may seem apathetic to the market economy, despite the fact that they are close to Muang Long and its morning market. Mun women do not seem to expect much, for instance, from the development of their vegetable gardens by the Nam Ma, as suggested to them by the education officials who provided seeds. The only cash activity is casual selling of water buffalos in Xieng Kok.

Crops

Until recently, the Mun used to only farm swidden land and many had never worked in paddy fields. Until 2003 (when they benefited from training in wet rice cultivation), their cultivation technique had been very close to slash-and-burn: they cultivated rain-fed paddy fields simply by sowing seeds without bedding out. In a bid to balance the hazards of the new paddy fields, many kept growing swidden rice. Among latecomers and opium addicts, some grew only swidden rice, and had no paddy field as yet. Swidden plots can also provide vegetables and (but never mentioned) opium poppies.

Ban Pa Kha has a reserve of arable land that could be cleared and converted into paddy fields, once the problem of regular distribution of water from the two brooks on either side of the village has been solved. According to the villagers, the problem lies in two mounds which prevent the water from flowing. They have already thought of digging two ditches, straight through one mound, and skirting around the other. Such deep ditches could be dug only with the help of a mechanical digger, which would cost 19 million Kip (about US\$1,800) to hire. The community would prefer such a solution, which would need no further investment afterwards, to the alternative of buying pumps. Two points were raised by villagers on this matter: one was the need for outside help in heavy agricultural investments; the other was economic inequality in the village, mainly derived from unequal access to irrigation in paddy fields. The well-off all have enough water in their rice fields. The less well-off and the latecomers have to take the remaining land and sometimes the hard labour of creating a new paddy field leads nowhere: the crop is meagre or non-existent because of water shortage. If a crop is destroyed by too much rain at the

wrong time, the loss is far worse for smallholders. In the Mun socio-economic system, a competitive single household economy is healthier than cooperative fields, where the competition incentive is lost and responsibility shared within the group.

Livestock

Livestock is the farmer's living capital, especially in the Nam Ma valley where there is a market nearby in Xieng Kok. Lue traders there buy water buffalos and take them through Myanmar to Thailand, where they are sold as Burmese buffalos at a sizable profit. Buffalos are the Mun's only draught animals, used for tilling with a traditional swing plough. They have not yet started feeding chicken or pigs intensively, but raise a limited number according to their family needs and nutrition resources. Occasionally extra chickens or pigs are sold in order to buy rice or repay a standing debt.

Even fish ponds do not provide a marketable production. There are five of them in Pa Kha and four in Ta Fak. The villagers seem to keep the fish for their own consumption, and especially for feeding visiting Lao officials. No-one carries fish to sell in the market and the same can be said of the dozens of ducks around these ponds.

Paper

Homemade paper is mostly used in ritual activities, another sphere of the Mun subsistence economy. Rituals involve written handbooks, paper joss money, written documents to be burned and thus sent to various agencies of the Beyond, and makeshift altars and religious accessories for the time of the ritual. All these are used by men—priests and acolytes—but made of paper produced by women. Each household produces the amount of paper necessary for its projected rituals. The raw material is bamboo from the forest, first macerated and then boiled to form a paste which is then dried on a cloth screen.

Dress

Clothing is perhaps the most conservative part of Mun life. Except for a couple of young men sporting Western style shirts or trousers, and the village party delegate's shiny grey suit which he wears to provincial Party meetings in Luang Namtha, men all wear their traditional ethnic costume: a black tunic buttoned on the left, and a pair of light indigo blue trousers in the same homemade cotton material. These clothes are 'cool in the sun, warm at sunset' and when trying to spot distant tribal relatives, the first question a Mun asks is, "do they wear a man's trousers and jacket like ours?"

Women all wear the traditional long black indigo cotton gown, buttoned on the upper part to the right, but open at the front and the back from the waist. It is cut in a way quite similar to the *ao dai* of Vietnamese women. Trousers finish just below the knee, supplemented by white leggings, and the gown tails are lifted up to show the leggings and to make walking easier. The gown is hemmed with red cyclamen dyed cotton and white thread and a red silk or cotton streamer hangs down from the collar to the waist. When the gown has been washed many times the streamer turns from bright cyclamen red to pink and white. Mun women say they choose a fading colour on purpose to achieve this result. They also wear a thin red tie as a belt, the ends decorated with beads and red streamers. Women start plucking their

eyebrows as soon as they become pubescent, giving their faces a moonlike look that is accentuated by a very special and elegant headdress. The hair is drawn up to form a bun, held in place by a big silver pin. A pair of braids is sometimes drawn forward and tied over the forehead. As protection from the sun, they also wear a black kerchief hemmed in red. When they go to the field or travel around, they carry a large white cotton shoulder bag with blue stripes, to hold vegetables and market items.

Religious Training

All the Lanten Yao, including the Kim Di Mun, share the same religious tradition. This is the Meishan doctrine, a blending of Meishan exorcism and healing rituals for the living, and Taoist rituals for the dead. Pa Kha, Ta Fak and Pang An villages form, more than anything else, a religious community. As with the Mien Yao, every male member of the community should be initiated to rituals through ordination ceremonies. The Kim Di Mun seem to prefer early ordination at the age of 16 or 17 and then insist on training all the newly-ordained, who play parts in active rituals under the strict direction of high priests and masters. A stage direction book, describing in order the different sequences of a given ritual, helps with this. Another special feature of the Lanten Yao religious tradition as a whole is that although ritual performers are divided into Meishan Masters, *sai kong*, and Priests of Tao, *tao kong*, men can be ordained in both orders and perform, under different divine patronages, both healing rituals for the sick and funeral and memorial ceremonies for the dead.

*Men alone are literate in Chinese
characters, giving them a monopolistic
control of religious life*

Gender Division of Labour and the Household Economy

The necessity for the Mun, male and female, to live in family households is well illustrated in the gender division of labour, which draws a sharp line between women and men in all activities of everyday life. Feeding and clothing everybody in the household are definitely women's duties, as are raising poultry and pigs. The whole clothes-making process, from harvesting cotton, to carding, spinning and weaving, dyeing material, cutting and sewing the clothes, considered the pride of the Kim Di Mun, rests entirely on women. There is a loom in every house, sitting underneath houses on stilts, under the canopy of traditional Mun ground houses, which are too dark for working inside, or next to a window in modern cement houses. The most time consuming and strenuous operation remains carding cotton flowers, using the same primitive carding machine as the Lao or the Lue. Carding, spinning and weaving are adult activities - children and teenagers sometimes watch the work but are not permitted to participate. They do however accompany their mothers and elders to the swidden and vegetable fields to work, and help with gathering berries, mushrooms, and firewood in the forest. The cumbersome task of piling up firewood is often left to a daughter-in-law. Cooking is the privilege of the house lady, a mother or sometimes a grandmother. She is assisted by younger women of the house but never replaced unless

she is sick or away. Daughters-in-law are sure to be given the domestic chores, along with poultry and pig feeding. The second home industry, papermaking and folding, is also a woman's work. In short, Mun women produce and organise everything that makes a house a desirable place to stay.

Men, on the other hand, are primarily guests in their own house. They build the abode with the help of fellow male villagers and their ancestral spirits preside over its destiny, but so great are women's responsibilities in managing household consumption and organisation that it cannot function without the help of a woman. This explains the extraordinary short period allocated to widows before their remarriage. The man is the hunter and, with his sons, the main cultivator of staple crops. He takes care of clearing, ploughing and planting, though lately rice transplanting has become a woman's duty. Other men's activities include butchery, silversmith work, basketwork and blacksmith work, transport and mechanical repairs, and important business. Rituals all belong to men, who can become priests, acolytes, healers, diviners, shamans, players of drums or cymbals, and dancers. Most important of all, men alone are literate in Chinese characters, giving them a monopolistic control of religious life.

Men and women are sharply divided in their daily occupations. When there is an opportunity they engage in antiphonal singing, in which the women, despite their Chinese character illiteracy, compete successfully with their male counterparts in a very sophisticated kind of poetry.

The Underlying System of the Lao Huay Household Subsistence

It should be understood that these villagers approach their economy as a subsistence lifestyle, but one that could change to a market economy under certain conditions. The village settlement is the home environment where any individual, male or female, can find shelter and food. He/she can only move from one Mun settlement to another and loses all personal identity, status and economic value as soon as he/she tries to get away from the tribal social sphere. In the city, Mun can only find second-rate employment and usually servant status. The ethnic boundary is the natural limit for adventurous young male bachelors when they set off from their native village. Whenever they decide to stop their journey in a village of fellow tribesmen, they find out that in this place - as in the others they visited already - subsistence is distributed through the different households of the village. Each household is quite independent from the next, to the point that, if they want to stay any longer, they have to join one specific household. For that, they need to find relatives among their hosts and, if they find none, must marry into one of the households.

By entering a household economy a person becomes entitled to the village subsistence shelter. There are quite a number of young men who joined the Pa Kha, Ta Fak and Pang An communities this way. Some came from afar in the same province or even from Bokeo or Oudomxay. After a few years of groom service, some decide to break off from their in-laws and start their own household with their wife and children. From that time they are on their own and can expect only limited help from their former household. Obviously the economic capacity of village households differs greatly according to their labour force. An old extended family is far better off than a young nuclear family, not only because of the number of its working members, but also due to unequal distribution of opportunities, starting

from the land area allocated. Everybody knows this fact and this is why many young couples are not ready to face the challenge. On the other hand, that is the price to pay for independence and full status among other adult villagers. Economic inequality here entails working hard and competing to develop one's family. It is the true economic incentive of this subsistence system. Collectivisation in this context only achieves economic stagnation among villagers, who lose all kind of economic competition and may replace it with political rivalry.

Conclusion: Paths to Development

Economic development is not an idea that needs to be introduced to the villagers - they all share it already. Modernisation is a different phenomenon because it may endanger traditional culture, which is the very identity of each member of the group and the people's only wealth and refuge. Nobody wants to live naked in a cultural wilderness and when economic development is linked to modernisation people may become very suspicious, refusing to leap forward in the unknown. While development is a natural aim, modernisation must be wanted before it can be accepted.

*When development is linked to modernisation,
people may become suspicious, refusing to
leap forward in the unknown*

Individual Wealth and Development

Whenever something has crossed the cultural filters and becomes acceptable to the villagers, like the tractor-trailers or motor powered cultivators, they all want it. It becomes another economic incentive. Some start buying it while the others watch the potential benefit such an item may introduce to their household economy. If the evidence is favourable, sooner or later they will try to have it. The modernisation of houses in Pa Kha now seems irreversible but if the villagers felt such an innovation brought no particular improvement, they would disregard it. Sometimes, like in the case of the rice mill, they need only one item for the whole village. The first villager to introduce it will exploit it with the other villagers' assent.

Collective Equipment and Development

The last example raises the issue of collective equipment. Despite the similar circumstances of the villages, only Pa Kha has established water standpipes. Neither Pang An nor Ta Fak have tried to imitate. The standpipes were introduced by NCA and to the other villages probably seem to belong to the collective equipment that is provided from outside. Pa Kha villagers have the same attitude to the large investment needed to fully irrigate their new paddy fields. They will not pool their resources to achieve such an improvement but will wait for government or NGO assistance. A bridge over the Nam Ma between Pa Kha and Ta Fak is badly needed, but meets the same problem. With a bridge, tractor-trailers would cross the Nam Ma and carry Ta Fak rice to Pa Kha and Muang Long, and trade would grow steadily.

In Short: the Mun and Modernisation

Lifestyle and outlook remain very traditional among the Mun. The developments that have been embraced all fit within the culture described in this article. To the villagers, development brought in by NGO and government agencies seems directed towards general models like health care, hygiene and cash crop production, and these may be accepted if proven to be practical and unthreatening to tradition. Donations like bicycles, standpipes or the volleyball equipment, while always welcome, somehow do not match their dreams. The villagers themselves choose to invest in more everyday improvements: electricity, VCD players, tractor-trailers, motorised cultivators and modern housing. They genuinely think that major investments, whether in agriculture, like digging a deep canal, or in communications, like building the bridge, or in expensive machines, like a motor-powered mechanical carding wheel, should be provided from outside by NGOs, the government or international development programmes.

Whatever the reason for this attitude, providing such collective equipment is the only opportunity the outside world has to start a constructive dialogue with the Mun on modernisation and development of a market economy. However, these wise Taoists may always prefer the vital shelter of their own culture and ethnicity: the traditional village, with its united economic community and limited opportunity to improve everybody's quality of life, is more attractive to them than individual enterprise and the unlimited success or failure of the few. The modern world, they fear, may be nurturing a global delusion.

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Juth Pakai

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