Sida Evaluation 04/24

National Water Supply and Environmental Health Programme in Laos

Joint External Evaluation

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Department for Natural Resources and Environment and Department for Asia

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Sida Evaluation 04/24
Commissioned by Sida, Department for Natural Resources and Environment and Department for Asia

Registration No.: 1998-2436
Date of Final Report: November 2004
Printed by Edita Sverige AB, 2004
Art. no. Sida4367en
ISBN 91-586-8485-9
ISSN 1401—0402

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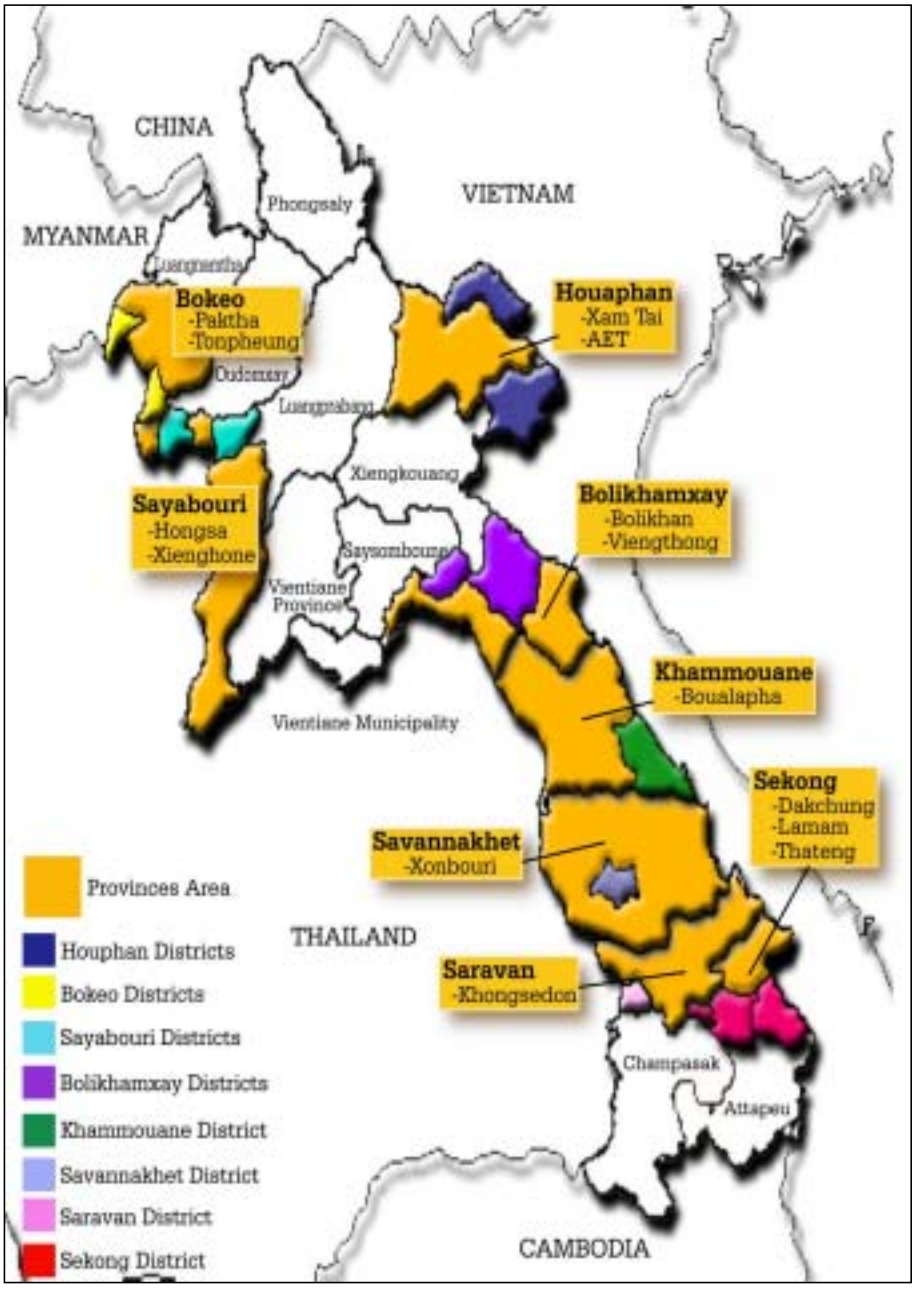
Work Areas for Sida Funded Projects January 2002 to June



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Abbreviations and acronyms

ADRA	Adventist Development Relief Agency
AusAID	Australian Aid
BTC	Belgian Technical Cooperation
CC	Cost Contribution
CIEH	Centre for Information and Education on Health
CTA	Chief Technical Adviser
DCU	District Coordinating Unit
DHUP	Department of Housing and Urban Planning
DOH	Department of Hygiene
DRC	Danish Red Cross
DSA	Daily Subsistence Allowance
ESA	External Support Agency
FGD	Focus Group Discussion
GFS	Gravity Fed System
GoL	Government of Laos
GPS	Global Positioning System
HASWAS	Hygiene Awareness, Sanitation and Water Supply
HESAN	Hygiene and Sanitation
HH	Household
HRD	Human Resources Development
ICT	Information Communication Technology
IEC	Information Education and Communication
IRC	International Reference Centre for Community Water Supply and Sanitation
JEE	Joint External Evaluation
JICA	Japanese International Cooperation Agency
KAP	Knowledge, Attitudes and Practices
LAK	Laotian Kips – legal tender in Laos PDR
LFA	Logical Framework Analysis for project planning
LWU	Lao PRD Women' Union
LYU	Lao PDR Youth Union
M&E	Monitoring and Evaluation
MIS	Management Information System
MoE	Ministry of Education
MoF	Ministry of Finance
MoPH	Ministry of Public Health
Nam Saat	The National Centre for Environmental Health and Water Supply
NETWAS	Network for Water and Sanitation
NGO	Non-government organization

NWSEHP	National Water Supply and Environmental Health Programme (Nam Saat)
O&M	Operation and Maintenance
PA	Provincial Adviser
PAG	Permanent Advisory Group of Sida
PDR	Peoples' Democratic Republic
PD	Project Document
PHAST	Participatory Hygiene and Sanitation Transformation – a joint project of WHO and UNDP/World Bank Water and Sanitation Programme
PHD	Provincial Health Department
PMU	Project Management Unit
PRA	Participatory Rapid Appraisal
PROWWESS	Promotion of the Role of Women in Water and Environmental Sanitation Services – a part of the UNDP – World Bank Water and Sanitation Program
PSSP	Primary School Sanitation Programme
RUWASA	Rural Water and Sanitation Project East Uganda
RWSS	Rural Water Supply and Sanitation
Sida	Swedish International Development Cooperation Agency
SEK	Swedish Kronor
STC	Short Term Consultant
SWOT	Strengths, Weaknesses, Opportunities and Threats
TA	Technical assistance
TNA	Training Needs Assessment
TOR	Terms of Reference
TOT	Training of Trainers
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNV	United Nations Volunteers
USD	United States Dollars
WASH	Water and Sanitation for Health
VHV	Village Health Volunteer
VPT	Village Promotion Team
WATSAN	Water and Sanitation
WB	World Bank
WRCC	Water Resources Coordinating Committee
WES	Water and Environmental Sanitation Department of UNICEF
WHO	World Health Organisation
WSP-EAP	Water and Sanitation Program – East Asia and Pacific of the World Bank
VWB	Village WATSAN Book
l/c/d	Litre per capita per day

1 US$ = about 10,500 Kip – the Laotian currency

Acknowledgements

The Joint External Evaluation (JEE) would like to express its sincere thanks to Central Nam Saat, Provincial and District Nam Saat, Water and Sanitation (WATSAN) Committee members and villagers as well as of course the project staff themselves who have all provided valuable information, which highly facilitated the work of the JEE.

Special thanks goes to the Chief Technical Advisor Mr. Jan-Erik Engström for his frank and transparent presentation of the Programme in all its aspects, and to Mr. Bo Dahlberg the Rural Water Supply and Sanitation Adviser for continued assistance to the evaluation team.

Mr. Waldemar Pickardt, Chief of the Water and Environmental Sanitation (WES) Section at UNICEF has on an almost daily basis assisted the team with information and valuable insights for which we are very grateful.

We are also pleased to acknowledge the great helpfulness of Mr. Lahiri Santanu Senior Water Supply and Sanitation Specialist, previously Country Team Leader Lao PDR/ Water and Sanitation Program – East Asia and Pacific (WSP-EAP). He has kindly contributed much appreciated information in the form of reports, documents and a CD.

1. Executive Summary

1.1. Background and Purpose

The Evaluation was carried out between 19 April and 8 June 2004 and covers: Phase II: 1998–2002 and Phase III: 2003–30 June 2004 (the consolidation phase) with the main purposes to:

- Discuss the design of the assistance under phase II and III in light of GoL and Sida policies
- Assess institutional capacity, human resources and processes compared to the level of sustainability;
- Comment on the extent the programme has contributed to sustainable improvement of health, poverty reduction and economic development among the rural target population; and
- Document lessons learnt and best practices of the support to the National Centre for Environmental Health and Water Supply.

1.2. The National Centre for Environmental Health and Water Supply

The National Centre for Environmental Health and Water Supply (Nam Saat) Programme is based on a solid legal and institutional framework. It is Nam Saat's role to develop rural water and sanitation services and to promote community participation in all stages of the development and maintenance of water and sanitation supplies. As the programme is actively promoting decentralisation, participation, equity and poverty reduction, – all aspects well known to lead to sustainability – the Sida support to Nam Saat is completely in line with both Lao and Sida policies. The main functions of Central Nam Saat are to:

- Train and facilitate staff at provincial level;
- Compile a national work plan and budget;
- Communicate with and co-ordinate External Support Agencies (ESAs); and
- "Lead the learning process and planning phases of the annual implementation cycle".

Central Nam Saat has an indirect responsibility towards the 18 Provincial Nam Saats, which are receiving direct orders from the Provincial Health Department. This means that Nam Saat Central has the authority but not the formal mandate to give orders to the Provincial Nam Saats. Below the provincial level there are 250 District Nam Saats. If Nam Saat had the same status as WASA it would be easier for Nam Saat to carry out its responsibilities. Now, the risk is that donors and NGOs may bypass Nam Saat and concentrate on provinces, districts and villages.

Nam Saat has continuously developed its competence but the main Human Resources Development (HRD) inputs in the form of international consultancies in Strategy Development, HRD, Information, Education and Communication (IEC), Monitoring and Evaluation (M&E) and Gender Aspects have taken place during the last year. It is now timely that these reports are translated into Lao, and that Nam Saat reviews the many recommendations made to select those most feasible and urgent to implement in line with its new mandate.

1.3. The United Nations Children's Fund

The United Nations Children's Fund (UNICEF) has played a central role in the programme. Of main importance is their price-effective procurement of handpumps from India. UNICEF has also promoted sector development by introducing improved methods, and took active part in the recent revision of the National Rural Water Supply and Sanitation (RWSS) Strategy. Other contributions to the programme are:

- The Primary School Sanitation Programme in which about 470 schools were supplied with clean water, sanitary latrines and child-friendly teaching tools;
- Promotion of the inclusion of hygiene education into the curriculum of Teacher Training Colleges;
- Implementation of a programme for de-worming of children in 23 schools;
- Organisation of "*Young Pioneers Network*" that was started in 2003 promoting participation of children and young people through songs, mini-concerts and drama performances to promote better hygiene.
- Water Quality (WQ) tests in some 380 high-risk villages for arsenic contamination. There are also plans to introduce annual tests of water quality in collaboration with Nam Saat as from 2004.
- UNICEF's determination to create a monitoring system for the WATSAN sector, and the assistance offered in the establishment of a Monitoring Unit in Nam SAAT Central, similar to the one in UNICEF.
- Another positive development is that UNICEF has started monitoring of the proportion of women in WATSAN Committees.

UNICEF has clearly been able to promote very significant sector developments. Remaining constraints are that UNICEF has not managed to solve the problem of access to locally produced handpumps and spare parts. Thus, the sector is dependent on continued UNICEF support.

1.4. The Water and Sanitation Program East Asia and Pacific of the World Bank

The Water and Sanitation Program East Asia and Pacific of the World Bank (WSP-EAP) is an agency with considerable professional experiences in the sector and actively took an active part in the development of the first National RWSS Strategy released in 1997. It is unfortunate that they did not take an active part in the support to Nam Saat after 2001. It seems like the Nam Saat staff was at that time not yet ready for the change to a more consumer-oriented and demand-driven approach in line with the Strategy. In view of the questionable sustainability of some schemes implemented with too little community dialogue and training, it is clear that WSP – EAP had the foresight to promote the strategy that was required. To develop and change procedures, train staff to accept the changes, and at the same time maintain high implementation targets was very difficult and there was a temptation to speed up implementation at the expense of long-term sustainability. WSP-EAP promoted quality to an extent that Nam Saat could not accept at that time.

1.5. Private Sector Involvement

Private contractors have been more and more involved in construction of water schemes, family latrines and school latrines. There are now about 250 private contractors working with Nam Saat. Decentralisation of procurement from central to provincial level made it necessary to train the staff in tendering and procurement of contractors and local materials. Involvement of the private sector has

been very successful with few problems, but Nam Saat needs to establish clear criteria for selection and appointment of private contractors based on their previous track record, and supervision of construction need to be strengthened

1.6. The Nam Saat/Swedish International Development Agency Programme

In the beginning of phase II the Nam Saat/Swedish International Development Agency (Sida) Programme was active in the so-called "Spearhead Provinces" Sekong, Borikhamxai and Huaphan. Sida also funded WATSAN programme activities in 14 provinces implemented by UNICEF. During 2001–2002 the number of Spearhead Provinces was increased to six, as Khammouane, Bokeo and Sayabouri was added. In addition, Sida funded WATSAN activities implemented by UNICEF in six provinces. In the Consolidation Phase 2002 – mid 2004 two more provinces were added, Savannaketh and Saravan. In this last phase UNICEF support was concentrated on the same 8 provinces and 14 districts as those assisted by Sida/Nam Saat. The project design was during both phases a source of confusion with a mixture of means and ends and with too many objectives. The design could not serve as the required compass guiding the implementation. The Logical Framework Analysis (LFA) methodology should have been used in the programme design.

1.6.1 Programme Implementation in Phase II

Initially, there were many constraints facing Nam Saat, such as:

- The disbursement procedures used by Sida, UNICEF and Nam Saat were lengthy and resulted in procurement delays. These have now been streamlined;
- Originally, the demands on community contributions were too high (30–40%). There seems to have been no professional assessment of the ability and willingness to pay. This resulted in the case of the School Sanitation Programme in poor construction of facilities, in turn leading to poor use of the facilities. Therefore, the subsidies have now been revised;
- Lack of physical resources for construction at village level;
- The field methodology was still under development, and the WATSAN committees received too little training in order to become sustainable institutions;
- Programme activities were generally thinly spread. Activities in Sida funded areas were not well co-ordinated with those of UNICEF. Therefore, networking and co-ordination were expanded and it became increasingly evident to the planners that the components of Water Supply, Household Latrines and School Sanitation should be integrated in the Village Development Plans.

On the positive side:

- There was a clear focus on poverty and equity.
- The Programme and its partners have developed a uniform process for WATSAN implementation in the form of a National Water Supply and Sanitation Strategy. The first Strategy was released in 1997 comprising a 12-Step Approach for implementation in the communities. As people at all levels were eager to speed up construction of water supplies the new approach was seen as too time-consuming, and there was no decentralisation policy approved at that time to back it up at intermediate and lower levels. The methodology was therefore not well accepted. Notwithstanding the initial difficulties, this was the beginning of a substantial paradigm shift from the old supply-driven to a more demand-driven approach Decentralisation of authority and decision-making takes time as it requires changes in attitudes, norms and values;

- As a result of the Strategy, Community-based Participatory Management was gradually promoted in the planning and implementation of water and sanitation facilities, although only the first six steps of the 12-Step Approach were actually used at that time;
- A procurement and accounting system was established and training in office management was carried out;
- A Training of Trainers (TOT) programme and training in Hygiene Promotion in Communities was initiated, and staffs were also sensitised on gender issues;
- Monthly, quarterly and annuals reviews were institutionalised.

Nam Saat tried to both expand coverage to new areas as well as develop new methods and capabilities. This was a time when many changes were introduced. Naturally, some of these changes resulted in discussions and more or less openly expressed resistance to change.

Conclusions on Phase II
Despite the many initial difficulties, particularly the delayed access to funds, the Programme managed surprisingly well to embrace the new ideas, even if the new thinking may have taken longer time than originally anticipated to trickled down to village level and result in behaviour changes in the form of more participatory leadership and new habits in hygiene and sanitation. Equity and poverty aspects came into the forefront, particularly relevant aspects from the objective of improving health – especially child health. The task to influence hygiene, sanitation and environmental health was underestimated and received insufficient attention. Gender sensitising activities were initiated, but had a limited impact and sustainability – partly as the main person trained in the Netherlands on Gender Aspects left the Programme.

1.6.2 Programme Implementation in Phase III

Again, there was again a serious problem with release of funds from Sida (nine months late).
The eagerness to speed up construction activities resulted in pre-fixed implementation targets that were difficult to live up to after switching to a demand-driven approach. The conditions in Laos are also difficult as the rainy season last 4–5 months making accessibility to many villages impossible during long periods. A programme like this should be flexible. Nevertheless, there were substantial achievements during phase III and the programme picked up momentum.

- The National Strategy was revised reflecting the Decentralisation Policy focussing on poverty reduction and involvement of the private sector and ethnic and gender equity.
- The revised Strategy was accompanied by guidelines issued in April 2004, now promoting a 7-Step Approach and including an annex comprising a revised mandate for the Village WATSAN Committees. The National RWSS Strategy is a great achievement providing a solid basis for quality assurance. The long time taken for its development depended on the speed of the participatory approach required to facilitate sector ownership. The Government Decentralisation Policy was another necessary prerequisite and it was ready in 2001;
- A Village WATSAN Book was developed to facilitate a standardised implementation of WATSAN schemes in accordance with the guidelines. This book will also serve as a monitoring tool as it contains reporting formats on WATSAN implementation, although the use of WATSAN facilities, and hygiene and gender aspects need to feature more prominently.
- A Gender Action Plan[1] was prepared. The activities now need to be integrated into the different level Action Plans of Nam Saat;

[1] National Centre for Environmental Health and Water Supply (Nam Saat), Gender Action Plan, undated.

- Sector management and co-ordination has improved. This is reflected in the many different types of meetings open to all agencies in the sector;
- Nam Saat and UNICEF have planned to start testing water quality on an annual basis. Standards have been adopted for12 water quality parameters. Some equipment is available in Nam Saat. UNICEF is soliciting more support to Nam Saat in the form of additional equipment from Europe.

1.7. WATSAN Facilities

There were considerable achievements in construction of WATSAN facilities in Phase III comprising:

- About 1,117 water schemes and 27,130 household latrines were constructed, and in addition 474 water supplies for schools and 463 school latrines were built during 2000–2004. (In the years of 1998–2000, the constructions of facilities were not done due to delayed funds.)
- The number of beneficiaries of the water systems has been calculated to around 114,000 people, and those who have got household latrines to 163,000. Around 117,000 children have benefited from improved water and sanitation in schools. Out of the original target of 500,000 people, about 30% have benefited from the programme only during the last four years.

1.8. Promotion of Hygiene and Sanitation

The Programme has a clear hardware focus, and there is too little hygiene promotion. In many areas people are told to build latrines as a precondition before the water facilities are constructed. Therefore, latrines are seen as instrumental to getting water, and some latrines have been poorly constructed and maintained. In addition, some people do not use the latrines as intended. Handwashing also needs more promotion. The Programme has to focus much more on hygiene promotion and sanitation in order to improve hygiene behaviour. This is a prerequisite to reach the over-all objective of improved health.

1.9. School Sanitation

A School Sanitation Survey was carried out in 2001 based on visits to 36 schools in 6 provinces. The lessons learnt were that all programme components such as water and sanitation facilities and hygiene promotion, are needed to achieve the desired results. Therefore, UNICEF has now decided to have a package approach. (Although not discussed by UNICEF or Nam Saat, a package approach is also needed in the Programme at village level). It was also found that the motivation of schoolteachers and the principals was key for latrine use. UNICEF has now together with the Ministry of Education (MOE) managed to include hygiene education into the curriculum in the Teacher Training Colleges. "The Blue Box" officially called "Learning with Joy" provided by UNICEF for training of school children is not always used by the teachers as it is neither obligatory nor is hygiene education included in the school curriculum. Sometimes on the other hand, the box is well used and the children get tired of the materials, and need new ones. The JEE recommends that:

- The Principal, the Parent Association and the school teachers should all be trained together at each school covered by the programme;
- The school should prepare a Sanitation Action Plan or else the training of the children will not be taken seriously;
- MOE and Nam Saat should follow-up and see if re-training or physical improvements are required in the schools already assisted by the programme before a package approach was used;

- Action-orientation could be more promoted (by for example a Health Walk in the Village followed by Mapping and preparation of a Village Sanitation Action Plan by adults and children together):
- Training
- Materials need to be up-dated.

1.10. Human Resources Development

An HRD Consultant prepared an HRD Programme in 2002 recommending capacity-building and organisational development to support the decentralisation. He suggested that Nam Saat takes on a more national co-ordinating and advisory role. The consultant also proposed an institutional re-organisation to establish a team at Nam Saat central with responsibilities related to software and social aspects including IEC and M&E. Other recommendations were to prepare job descriptions for all staff, and that provincial staffs should be provided with all the necessary documentation and resources that will allow them to develop their knowledge, skills and attitudes. The poor linkages between the HRD Plan, activities and methods, and the use of the training, and deployment of staff trained, is well highlighted in the plan, but questions remain:

- Is recruitment based on job profiles?
- How does Nam Saat keep abreast of sector developments? (By reading books, periodicals, and reports or by surfing on the Internet or by fellowships or some type of training?)
- How does Nam Saat recognise and reward individual initiatives to learn and develop the organisation?
- How is performance rewarded?
- The conceptual framework – in which training is but one component – is not clear in the plan.

1.11. Promotion of Hygiene Behaviour Change

Women's' Union or Youth Union representatives are usually in charge of the Hygiene and Sanitation Promotion. There was too limited international TA for hygiene promotion. Although UNICEF and Nam Saat have both developed training materials, these do not seem to have been extensively used. While materials have been produced to promote some participatory approaches most promotion has been in the form of telling people what to do. A problem is that at least four different Programmes are using the same Village Health Volunteers. These have limited training as TOTs and few materials for promotion. Non-verbal Participatory Rural Appraisal (PRA) tools are not used, although it would be suitable for Laos with its many ethnic groups speaking different languages.

1.12. Information, Education and Communication

The three IEC consultancies have been implemented during the last year. The first consultancy emphasised that lasting behaviour change must come from within communities, and that hygiene education is most effective if participatory and internalised. He proposed integration of hygiene education interventions in communities at every project stage. The need for long-term reinforcement of behaviour changes was also stressed. This would be easier if there was a resource centre at central level and eventually in every province.

Nam Saat has recently made a communication and dissemination strategy, but there is a heavy hardware bias reflected in the manuals produced by the Programme. Nam Saat staffs are not well aware of lessons learnt over the years in the sector. According to international studies[2], reductions of deaths and diarrhoeal diseases typically average around 15% for provision of water, a combination of water and sanitation usually results in an average reduction of 30%, improved amounts of water is associated with a 27% reduction, and hygiene education with as much as 33% improvement. The staffs still believe that water is most important.

Recommendations

- Nam Saat should download international lessons learnt published on the Internet and select, translate and distribute some of these documents to staffs at different levels;
- Hygiene Education and Sanitation (HESAN) promotion should be better integrated into the 7-Steps Approach;
- More aspects of hygiene and sanitation need to be covered, such as increased handwashing and bathing, a clean latrine – with a handwashing facility; safe disposal of children's faeces; the "Safe Water Chain" from source to mouth; improved domestic solid waste, and sullage disposal;
- Participatory tools promoting in-depth analysis and discussion and social marketing methods should be tried out;
- M&E should integrate indicators of hygiene and sanitation;
- Collaboration in M&E with the Epidemiological Department should be strengthened;
- Nam Saat could also co-operation more with the Centre for Information Education and Communication located in the Ministry of Public Health (MoPH).

1.13. Monitoring

Several attempts have been made to institutionalise M&E over the years. The Sida Permanent Advisory Group (PAG) minutes reflect the regular occurrence of M&E on the decisions taken. A combined IEC and M&E Unit has recently been established with three posts, one of which is for M&E. Terms of Reference have been prepared as well as a job description. The Unit has moved into renovated premises. UNICEF has almost completed the establishment of the UNICEF Water and Sanitation (WATSAN) databases and carried out on-the-job training of the M&E Officer.

An M&E consultant has in collaboration with project staff prepared an M&E work-plan released only two days prior to the Joint External Evaluation (JEE) mission, so it is too early to comment on the implementation. A good achievement is however the before mentioned newly developed WATSAN book to be given to each WATSAN Committee for recording progress, but it is still too construction focussed.

The task to initiate and institutionalise an M&E System in Nam Saat has been difficult, as they had to establish a staff unit that required staff changes to be approved by the MoPH. The M&E system in the process to be institutionalised is focussing on programme progress and expenditures. But some basic questions remain to be answered when it comes to M&E:

- Who are the primary users of the M&E information?

[2] Steven A. Esrey et al. Health Benefits from improvements in Water Supply and Sanitation: Survey and Analysis of the Literature on Selected Diseases, WASH Technical Report No. 66 WASH, Arlington VA, July 1990.

- What type of information do they need?
- What action will the M&E information lead to?
- When should action be taken?

A long-term consultant is still required if an M&E system is to be institutionalised. Perhaps Nam Saat could initiate collaboration with the University?

1.14. Over-all Recommendations

- Sustainability will not be achieved without extensive capacity building at all levels from Nam Saat down to household and individual user level.
- While a National RWSS Strategy has been developed, this document need now to be matched with an HRD Strategy and Plan which, does not only as the existing HRD Plan look at the Nam Saat Staff. It should be comprehensive and focus especially at the training needs of the WATSAN Committees and the VHV promoting Hygiene Behaviour Change.
- Therefore, WATSAN Programmes should be designed with a balanced hardware-software mix in TA paying due consideration to the HRD, IEC, Gender and M&E components.
- Capacity building is an open-ended activity depending more on the learner rather than the provider/trainer, thus warranting long-term inputs to be and timely and effectively implemented;
- The optimal sequence in implementing projects with capacity building components is:
  1. Assessment of legal and policy framework
  2. Review of functions, responsibilities and job descriptions
  3. Assessment of competencies and Training Needs
  4. HRD – Training and other capacity-building
  5. Implementation, and
  6. M&E
- To phase out assistance out by the end of June is to jeopardise sustainability. An extension is required, and software components still needs strengthening. The Nam Saat Programme depends on further external assistance.

2. Introduction

2.1. Background

The National Rural Water Supply and Environmental Health Programme also known as Nam Saat is a Programme under the Department of Hygiene in the Ministry of Health. UNICEF initiated assistance to Nam Saat through its Water and Environmental Sanitation (WES) Programme in 1990. Sida support to the Programme started in 1991. It comprised support to UNICEF as well as through Technical Assistance directly to Nam Saat. The Programme covers three phases with slightly different scopes:

Phase I: 1992–1997
In 1994 the UNDP-World Bank Water and Sanitation Programme for East Asia and the Pacific (WSP-EAP) was engaged to complement the UNICEF support to Nam Saat. The focus was on strategic planning and institutional strengthening of the National Water Supply and Environmental Health Programme (Nam SAAT) including assistance to the development of the Rural Water Supply and Environmental Health Sector Strategy and Guideline National Framework launched in 1997.

Phase II: 1998–2002
A Phase II of the programme covered the period 1998–2002 when Sida gradually ceased channelling funds through WSP-EAP, and in 2001 the funds went directly to Nam Saat.

Phase III: 2003–2004
The Programme assistance was extended through an 18 months Consolidation Phase from January 2003 to 30 June 2004. Important consultancies were implemented during this phase such as a revision of the National Strategy for Rural Water Supply and Environmental Health sector, consultancies to develop the IEC Strategy, to develop an HRD Plan for Nam Saat, development of A Gender Action Plan and consultancies on Monitoring and Evaluation.

This Joint External Evaluation covers the last two phases of the Programme. It was carried out in April and May 2004. The Evaluation Team comprised:

- Dr. Inga-Lill Andréhn, Team Leader, Social Scientist
- Mr. Manochit Panichit, M. Sc. Water Supply Specialist
- Ms. Katherine Suvanthongne, Consultant Epidemiological Inspection

The Terms of Reference for the JEE are enclosed in Appendix 1. A selective list of persons met is enclosed in Appendix 2, and the documents consulted in Appendix 3.

2.2. Purpose

The Joint External Evaluation (JEE) covers the last two phases of the programme as mentioned above. The purpose of the JEE was to review the relevance, achievements, impact, cost effectiveness and lessons learnt from the programme. The JEE has attempted to cover relevant aspects of the Sida funded support to the NWSEHP during April 2001–2004, as channelled through UNICEF, WSP-EAP and Nam Saat. It has assessed the extent to which the project has achieved the main objectives during the periods of:

a) "Transitional Support to the National Water Supply and Environmental Health Programme Nam Saat over the 15 months-period, April 2001–2002." and

b) "Extension of the Transitional Support to the National Water Supply and Environmental Health Programme, Consolidation Phase, January 2003–June 2004".

The objectives of the evaluation were to:

1. Discuss the design of the assistance under phase II and III in light of Government of Laos (GoL) and Sida policies;

2. Assess institutional capacity, human resources and processes compared to the level of sustainability envisaged in the Project Proposals;

3. Comment on the extent the programme has contributed to sustainable improvement of health, poverty reduction and economic development among the rural target population; and

4. Document lessons learnt and best practices of the support to Nam Saat.

As the programme was primarily designed to build institutional and human capacity and create an environment through decentralisation of roles and responsibilities better enabling Nam Saat to provide services to the rural populations, special attention has been be placed on assessing institutional aspects as well as the standard components of any evaluation. The main focus of the evaluation is summarised below:

i) Relevance of the goals and objectives:

a. Would a focus on provincial rather than central level had been advantageous?

b. Would a focus on service delivery to provinces/districts better developed, more densely populated and less remote have been advantageous from a cost-efficiency perspective?

ii) Cost-effectiveness from the GoL point of view, taking the points above into account.

iii) Achievement of programme objectives;

iv) The Lao leadership and ownership;

v) Compatibility between programme activities and GoL decentralisation policies;

vi) The improvement and strengthening of private sector involvement;

vii) Immediate and long-term impacts of the Programme activities at central, provincial/district and village level;

viii) Sustainability of the support of both "hardware" and "software" components;

ix) Distribution of funding between "hardware" and "software" components;

x) Whether gender issues have been adequately pursued;

xi) Appropriateness of technologies for service delivery;

xii) Likelihood of increased sustainability and impact if the project had been extended beyond June 2004;

xiii) Role and performance of the supporting agencies UNICEF and WSP-EAP; and

xiv) Role and performance of the advisers at central and provincial levels.

2.3. Methodology and Approach

The evaluation has to a considerable extent been based on the many reports prepared by long-term staffs and consultants. About 70 reports have been reviewed. As mentioned above, a list of documents consulted is enclosed as appendix 3. The team members have also made visits to provinces, districts and villages. Different interview guides and questionnaires were prepared and the questionnaires used in the recent KAP Study were also used. The Field Visit Reports are attached in appendix 8 and 9. The visits to the villages were only intended to confirm or correct the impressions gained during the initial fact-finding. The main methods used comprised:

- Key Informant Interviews
- Direct Observations including Field Visits
- Focus Group Discussions with stakeholders at different levels,
- Semi-structured and open interviews,
- Simple cost-benefit analysis

- Debriefing Workshop
- National Seminar.

The JEE prepared a Debriefing Note which was discussed with Nam Saat staff and the Swedish Embassy on 13 May and during a presentation to Nam Saat on the 15th May 2004. UNICEF provided comments to the debriefing on 21 May and Nam Saat on 26 – 28 May 2004. It was finally discussed in a sector workshop at Nam Saat Headquarters on 8 June 2004. All stakeholders were welcome to provide comments up to 28th June 2008.

2.4. Comments on the TOR

Originally, the JEE was supposed to cover all relevant aspects of the Sida funded support to the NWSEHP as channelled through UNICEF, WSP-EAP and Nam Saat as from 1992. The objectives of the evaluation were ambitious. The original idea was also that the team was to include a Rural Water and Environmental Health Specialist, a Financial Specialist as well as an Institutional Specialist and a Team Leader. The scope was subsequently reduced to cover only the period 1998–2004. One international consultant and two local consultants were hired for the assignment.

2.5. Outline of the Report

Chapter 1 comprises the Executive Summary of the report, followed by this Introduction describing background, purpose, methodology and outline of the report.

Chapter 3 deals with the institutional framework including legal aspects and policies, the National Strategy and the so-called 7-Step Approach to the Implementation of WATSAN at field level. This chapter also describes the Nam Saat organisation.

Chapter 4 is an assessment of the design and overall implementation of the Sida Programme in terms of the objectives, outputs and main emphasis during the last two Programme phases. It also contains an analysis of the staffing in relation to the planned activities, outputs and objectives, support from the Programme Advisory Group (PAG) and the collaboration with UNICEF and Water and Sanitation Program – East Asia and Pacific (WSP-EAP). The issue of a central or provincial/district approach is also discussed towards the end of this chapter.

Chapter 5 describes the construction, management and maintenance of WATSAN facilities.

Chapter 6 comprise of an assessment of the WATSAN Programme for Primary Schools.

Chapter 7 deals with aspects of capacity building and human resources development and training at different levels.

Chapter 8 is devoted to Hygiene Education – a problematic component compared with the others.

Chapter 9 discusses Information, Education and Communication, which have recently been reviewed by a short-term consultant.

Chapter 10 contains an analysis of most aspects of the M&E system. Some of the many different M&E reports prepared under the Programme were also assessed. This assessment has been included as an appendix.

3. Institutional Framework

3.1. Legal Framework

Nam Saat has under the Sida support made significant contributions to the development of the institutional framework required for successful implementation of water and sanitation activities in Laos. This new framework is the result of a long-term paradigm shift towards decentralisation, demand-driven, participatory and community-based management of water supplies. The private sector has also been involved in construction. Below is a summary of the important legal and policy framework that constituted the basis for the implementation of the Programme:

- The programme is based on the Water and Water Resources Law of 1996 and a decree giving the responsibility for rural water to the Ministry of Health;
- The decree emphasises Community Awareness and Participation in all stages of the development and maintenance of water supplies;
- Private sector participation is also suggested;
- The Prime Minister's Decree, Instruction 1 of March 2000 calling for government decentralisation of management from central to provincial and district levels was officially endorsed after a Party Congress in 2001.
- The Hygiene, Prevention and Health Promotion Law from 2001 deals with functions related to Hygiene, Prevention and Health Promotion where Article 7 stresses importance of Hygiene as the basic task of the Health Sector of which Nam Saat is an important entity;
- Article 16 deals with School Hygiene. This is a crucial component as it designed to reach people in formative age when information, education and communication (IEC) will have the most effective impact.

3.2. GoL Laws and Policies

3.2.1 The Water and Water Resources Law

This law was issued in 1996. It is dealing with promotion, development and protection of the water resources, the environment and scenic beauty of the country. Disputes related to water are in the first instance to be handled by Local Authorities, and if not resolved by them they may proceed to court. There are incentives and penalties associated with breaking the law (Articles 46 and 47). There is also a decree (No 37 of 2001) to implement the law based on articles dating from 1996 to 2001 that stipulates the responsibility for rural water to rest with the Ministry of Health. This decree in its Article 6 promulgates Community Awareness and Participation in all stages of the development and maintenance of water supplies. Promotion and regulation of private sector participation is suggested in Article 9.

3.2.2 The Hygiene, Prevention and Health Promotion Law

Laos has a Hygiene, Prevention and Health Promotion Law from 2001. Article 1 deals with functions related to Hygiene, Prevention and the Health Promotion Law, and with various aspects of hygiene and it highlights that the health of the people is the responsibility of the State. Article 7 stresses importance of Hygiene as the basic task of the Health Sector, aiming to prevent diseases and promote health for the whole society. Article 16 is about Hygiene in Schools. It stipulates among other things that the location should be safe and the building should have sufficient space to correspond to the number of

children in the school. Teachers, school children and the organisation should ensure the cleanness of the school, access to drinking water, water for use and access to hygienic latrines and other facilities.

What is still missing is that the guidelines should also mention the need for handwashing facilities in schools. The Law has not yet been matched with associated sanctions or suggestions as to how school hygiene should be implemented, monitored and enforced. This is natural as the School Sanitation Programme is in its infancy and still under development.

3.3. The GoL National Water and Sanitation Strategy

3.3.1 The Strategy

In 1994 Sida started to provide funds to the World Bank Water and Sanitation Program – East Asia and Pacific (WSP-EAP) to strengthen the sector. The WSP-EAP was actively involved in the Programme promoting the institutional framework in the form of development of a National Water and Sanitation (WATSAN) Strategy. The first Strategy was developed in 1997 emphasising:

- Community Participation and bottom-up approach;
- Quality and sustainability rather than quantity of schemes;
- Encouragement of wealthier communities to request assistance from the private sector, while Nam Saat concentrates on remote and poorer areas;
- Collaboration between Nam Saat and other sector partners.

The first Strategy contained many new aspects. It was accompanied by large-scale training of central and provincial staff. Training of district staff and different facilitators at community level was seen as a long-term assignment and it is still going on. The Strategy was ambitious and comprised of a 12-Step Approach to WATSAN planning and implementation. But the use of 12 steps was considered to slow down implementation too much, and therefore only the first 6 steps were used in practice. Nam Saat staffs were not yet ready for the far-reaching decentralisation until a Party Congress in 2001 called for decentralisation. Nevertheless, its introduction constituted an important development in the WATSAN sector, and a gradual but fundamental change was initiated. Nam Saat, UNICEF and WSP-EAP were faced by the challenging task: To improve quality by working according the more time-consuming Strategy and to speed up implementation to increase coverage at the same time. These were conflicting objectives.

In Phase III of the Programme it was decided to simplify the first strategy to increase its acceptance. A steering committee for the revision of the strategy was established in 2002. It comprised of inter-ministerial senior members from government agencies, members of mass organisations and representatives of users of the water systems. A consultant was recruited to facilitate the process and to write the document. Work started in March 2003, and a revision was ready in draft form in March 2004[3].
This Strategy reflects the Lao Government's new decentralisation policy and focus on poverty reduction. Other newly introduced concepts are the involvement of the private sector and aspects of ethnic and gender equity. The revised Strategy promotes a uniform implementation process now comprising a 7-Steps Approach and guidelines to WATSAN implementation. Monitoring and evaluation by means of milestones and indicators are also emphasised. This new Strategy represents an important contribution to the progress of the WATSAN sector. It has the following core National Objectives:

[3] Nam Saat. The National Strategy for the Rural Water Supply and Environmental Health Sector 2004 – 2006. Final (3rd) Draft 12 March 2004.

i) Improved sustainability

ii) Improved health and socio-economic impact

iii) Reduced morbidity and mortality

All strategic principles mentioned in the Strategy are very laudable, such as participation, demand-driven process, importance of water and sanitation and the mentioning of environmental health. Other important aspects are the focus on poverty reduction, ethnic and gender equity and involvement of the private sector. It is also recognised that changes in behaviour and practices are required for RWSS projects to achieve their objectives and therefore the need for information, education and communication have been recognised.

The Strategy also suggests how these aspects are to be implemented. The importance of participation of women, elders and influential leaders is highlighted. The intention is to promote and support women and ethnic minority extension workers. The guidelines for the WATSAN Committees stipulates that out of the six suggested posts two should be for women. These are the representative of the Village Women's Union (in charge of economic matters) and one of the two Village Volunteers in charge of monitoring and evaluation as well as IEC matters.

The Strategy mentions that *"A large part of the hygiene education effort will therefore be directed to school hygiene education and integrated school and dispensary water supply and sanitation programmes."* Lessons learnt from Programme impact on previous village and school implementation of the sanitation component clearly underline that more time and effort need to be devoted to hygiene promotion in order to influence hygiene and sanitation (HESAN) behaviour. As the Strategy correctly puts it:

"Behaviour change is a long-term change that needs to be reinforced over many years, spanning the entire operational life of the new water schemes or latrines."

3.3.2 Implementation of the First National Strategy

The first National Strategy from 1997 was thoroughly discussed, but it was never fully implemented. A significant event was when Nam Saat got a new role in 2001 and direct implementation was gradually decentralised to provincial level. But the idea of preparing Provincial Implementation Plans (PIPs) was initially a source of confusion. There was a slow-down in implementation, as the need for capacity building at provincial level had not been catered for. Planning and supervision took more time than originally foreseen. The PAG requested that programme coverage should be increased. However, villages in realty need about a 6-months mobilisation period, which the Work Plan did not allow for, and the implementation targets could not be met. The demand-driven approach according to the Strategy meant a slower pace. UNICEF estimates that only about 20% of villages were initially consulted in line with the community dialogue prescribed in the National Strategy. District officers usually still decide what type of schemes to build, and there is still a great need for training of staff to facilitate the understanding and acceptance of the Strategy.

Conclusions

- The National Strategy is based on a series of newly introduced concepts like decentralisation, demand-driven, poverty-focuses services based on community dialogue and participation with due consideration to ethnicity and gender. It is therefore justified to see the new Strategy as a result of a comprehensive paradigm shift in the WATSAN sector;
- The paradigm shift reflected in the Strategy is very well justified as it will improve sustainability of the WATSAN schemes;

- It is only natural that the many new components and approaches are likely to be associated with initial resistance to change – especially as working according to these approaches means a slow-down in implementation;
- Another constraint was that the district technical staff directly in charge of implementation at village level were initially not trained in the approaches promoted in the Strategy;
- Staffs at central and provincial levels have now been trained and embrace the new Strategy. As the training of district staff progresses the new approaches will gradually be implemented and sustainability will steadily increase.
- The paradigm change is in the process of being rapidly implemented in the Lao PDR.

3.3.3 The 7-Step Approach Guideline

The 7-Steps Approach Guideline annexed to the Strategy is a recent development released in draft form in April 2004. A comparison of the strategic focus on strengthening behaviour change detailed under section 2.4.5 (page 13) in the Strategy with the 7-Step Approach (Annex D1 and C1 to the Strategy) indicated that only one step should cater for training of the community members. All the ways of promoting changes in hygiene behaviour which are elaborated under vii. in the Strategy were at that stage covered under the rather vague headline labelled: "HRD Plan and Health Awareness Strategy" to be developed at village level by the volunteers. The JEE pointed out that there is a high risk of a one-time training event, especially as the description of the Village Action Plan only exemplified activities related to provision of water. Frequency and length of exposure to different types of messages prepared to influence hygiene behaviour need to be more discussed and tried out in practice. Nam Saat continued working on the further development of the Annex to strengthen hygiene promotion. The latest development is the Village WATSAN Book, which represents another important recent step forward. This illustrates Nam Saat accelerating ambition to continuously develop the procedures.

3.3.4 The Village WATSAN Book

The Village WATSAN Book (VWB) has been developed to promote adherence to the Strategy and the Guidelines. It is designed to assist district staff and the Village WATSAN Committees in planning implementation, management and monitoring of WATSAN activities. This is a very useful tool for the WATSAN committees clarifying their roles and responsibilities and promoting activities related to planning, construction and management of WATSAN facilities as well as promoting both personal as well as environmental hygiene. The list of content of the Village WATSAN Book (VWB) is attached in appendix 4. The current draft has just been released (21 May 2004). Construction activities are well covered in the VWB but there is some room for improvement. The table below contain some comments on the VWB:

Table 1. Comments on the Village WATSAN Book

Form B	The forms enclosed in the book are intended to assess the initial pre-construction situation in the village. The form "Community Data" only deals with water not with sanitation. Therefore it cannot serve as a baseline for progress in latrine construction and use.
Form C	The form "Minutes of community meetings introducing the project concept" has space for listing those present in the meeting, but there is no provision for recording the sex distribution of the participants, so female participation cannot be assessed.
Form D	"Details of community demand and commitment" is focused only on "Discussions of technology to be adopted, provisional cost estimates for water and sanitation provisions", while hygiene behaviour is not mentioned. Linkages between diseases and hygiene behaviour are not reflected and may not be mentioned in the meeting.
Form E	Form E "Go Ahead Agreement" does contain a "Village Health Campaign" and a commitment to "Participate in Health/Hygiene Training".

Form J	Form J contains "Details of the Health Awareness Campaign", but it does not enable easy monitoring and evaluation as it comprise of four open headlines, namely: • Details of training provided and dates • List of training materials used • List of people who attended training (not by sex) and • Conclusion of training the community The open comments to be prepared by the volunteers will enable some monitoring by the district staff but the questionnaire needs to be revised by "closing the questions" so the responses can be made by ticking the chosen alternatives. This would enable computerisation of the responses and facilitate compilation and analysis.
Form L	The title of this form is: "Details of the Public Awareness Campaign and Community Informed Choice": Also this form contains open headlines namely: • Details of IEC campaign • Discussions of technology to be adopted, costs and skills required to construct operate and maintain desired water provisions • Discussions of technology to be adopted and possible costs for provision of latrines, and • Conclusion of discussions with the community The content, methods and approaches for hygiene promotion are not to be recorded, and there is no mention of training materials used or distributed. It will therefore be difficult to follow-up what has happened.
The other forms up to T	These are related to construction and very well warranted, but it is clear that computerised monitoring and evaluation has not been the purpose when preparing the forms.

Conclusion

Despite some critical comments listed above, the VWB is a very good initiative facilitating standardisation in implementation. It could relatively easily be developed into an M&E system to be entered into a data bank.

3.3.5 The Mandate of the WATSAN Committee

A completely fresh description of the Organisation and Mandate of The Village WATSAN Committee as of 21 May 2004 has been prepared. It is attached in Appendix 5. This is another much needed development reflected in the VWB that will improve the management of the WATSAN facilities.
All these developments have been achieved through participatory consultations with Nam Saat staffs at different levels culminating in a workshop held on 13th May 2004.

Conclusion

There has been a rapid institutional development represented by a revised National WATSAN Strategy, Guidelines, the Village WATSAN Book and an annex detailing the Mandate, roles, responsibilities and composition of the WATSAN Committees. These are commendable achievements providing the basis for sustainable WATSAN facilities.

Recommendations on the WATSAN Book and the WATSAN Committee Mandate

- The WATSAN book should be reviewed from an M&E perspective to facilitate follow-up action and computerisation;
- Larger quantities of forms should only be printed subsequent to extensive pre-testing;
- The content of the environmental health component should be flexible and need based – sensitive to changes in the local disease panorama;
- WATSAN is primarily associated with female gender roles as women are the ones primarily responsible for the use of water as well as for family hygiene and sanitation. Stipulating that only two members of the WATSAN Committee should be women is insufficient. In due course perhaps a better equity could be something to strive for by promoting the number to be increased to three

women. International lessons learnt show that the gender balance in WATSAN is an important factor in order to achieve sustainability of the facilities.

3.4. Compatibility with Sida Policies

Poverty Alleviation is a primary objective for Sida. This is completely in line with this Programme that is focussing on the most remote and poor areas in Laos often inhabited by ethnic minorities.

Improved Health is another aspect, which is a prerequisite for poverty alleviation. It was assumed that the provision of water and sanitation would lead to improved health, but hygiene behaviour change a prerequisite for realising the expected benefits of the WATSAN Programme. Nam Saat is therefore working towards promoting all the components listed below in order to reach its objectives of improved health:

- Hygienic and consistent use of clean water from a protected source;
- Use of more water for hygiene purposes;
- Adherence to the so-called "safe water chain" (from source to mouth);
- Sanitation in the form of construction of latrines;
- Environmental Health reducing the risks of contamination:
- Hand-washing (the most important mean for reduction of diarrhoeal diseases and intestinal infestations).

Training materials have been produced with assistance from BTC, UNICEF and the WB. Thus, the Programme has all the required components although with a strong emphasis on provision of water as compared to hygiene and sanitation.

Decentralisation – and implicitly democracy – is a long-term process, which is also compatible with Sida priorities. This process has certainly been well initiated through the legal framework and the revised National Strategy for WATSAN in Laos. It is probably the most important institutional achievement in the sector during recent years.

Participation and Ownership are directly linked to the extent the National Strategy will be followed in the WATSAN implementation process. Hence these aspects are expected to be the results of more extensive training of district staffs and Village Health Volunteers.

Sustainability is in turn a result of the decentralisation, participation and feeling of ownership. However, there are additional aspects that the Programme has not considered much, namely convenience and comfort. These are the most appreciated aspects of the Programme and they will no doubt contribute to sustainability. The Programme is therefore need-based even if the villagers are not primarily thinking of improved health as their priority objective.

Conclusion
The programme is completely in line with both Lao and Sida policies as it is actively promoting decentralisation, participation and ownership, poverty reduction and gender mainstreaming, all aspects that are well known to lead to sustainability.

3.5. Nam Saat

3.5.1 Organisation and Responsibilities of Nam Saat

As mentioned in chapter 2, Nam Saat is a Programme placed under the Department of Hygiene in the Ministry of Public Health responsible for development of water supply and sanitation in rural areas where about 80% of the Lao population lives. The Central Nam Saat organisation has three divisions headed by three directors and deputies:

i) Environmental Health Division with the section of Hygiene Inspection and Environmental Health Promotion with seven staffs and the section of Health Education Promotion with six staffs;

ii) Water Supply Division with the sections of Ground Water with six staffs and Surface Water with 4 staffs;

iii) Management and Administration Division with tens staffs in the section of General Administration and nine staffs in Technical Administration.

Two organisation charts displaying a) Nam Saat Central within the Ministry of Health and b) Nam Saat in relation to the Provincial Departments are attached in Appendix 6 and 7 respectively. It is clear from the latter that Nam Saat only has an indirect responsibility towards the Provincial Nam Saat, which is receiving its direct orders from the Provincial Health Department. This means that Nam Saat Central has the mandate but not the authority to give orders to the Provincial Nam Saat. Such orders must go through the Provincial Health Department. The Provincial Governor can over-rule Nam Saat's decisions as it is the Dir. for Provincial Health who has the authority despite the Provincial Nam Saat's mandate. This is a disadvantage from the viewpoint of Central Nam Saat, as the organisation then has the formal mandate to ensure implementation of the WATSAN Strategy, guidelines and approaches down to village level, but in reality it has not got the authority to do so.

From the viewpoint of the Provincial Health Department it may however be perceived as an advantage promoting a birds-eye perspective along with the important responsibility of co-ordinating and promoting sector development at that level. This promotes decentralisation. The main functions of Central Nam Saat are to:

- Advice, facilitate and train Nam Saat staff at provincial level;
- Compile a National Work Plan and Budget;
- Communicate with and co-ordinate External Support Agencies (ESAs) and central government with support from the Department of Hygiene and Preventive Medicine;
- Lead the learning process at all levels and in planning phases of the annual implementation cycle; and
- Co-ordinate and establish linkages. UNICEF is present in all provinces but there have been many other External Support Agencies ESAs over the recent years such as: Sida, CIDSE, EED, UN, CAA, Lux Dev, WHO, JICA, PDDP, WB, Mennonite, AUSAID, DRC, SRC, EDA, GTZ, EU, IFAD, LRC, ACF, MSF, WV, World Heritage, Care, FHI, ADB, UNDCP, UNV, FOMACOP, Danida, NORAD, Concern, and ADRA.

Provincial Nam Saat is established in all the 18 provinces. There are about 250 entities at district level referred to as District Nam Saat, under the District Offices. This is the level directly responsible for implementation supervised by the Provincial Health Department. This represents a good holistic approach to water sanitation and health promotion instead of the often narrow and sectoral organisations that hinders intra-sectoral and intersectoral collaboration in most countries.

Nam Saat has entered into a Memorandum of Understanding with the Ministry of Education and the Lao Youth Union for collaboration in the field of hygiene promotion at village level as well as through the education system through training of teachers and training of primary school children. This promotes good intersectoral collaboration.

The changed role of Nam Saat has been discussed in the Mid Term Evaluation Report[4] in 2001 when it was summarised that: "Virtually all NGOs and ESAs, who together account for the dominating proportion of funding, have chosen to deploy their funds with the provinces or in some cases even districts. There appears to be little scope for a reversal of this process. This would suggest that Nam Saat Central might not be able to play but a marginal role as a conduit of funds for implementation and consequently as a procurement entity. Although the creation of such a role has been identified as a Nam Saat goal in the project document, Nam Saat's capacity for attracting donor or NGO funds for implementation, in competition with the provinces appears limited".

The donors and international agencies that are now supporting the provinces or even districts directly may have different views on how WATSAN best should be implemented. They have also different ideas as to the roles and responsibilities of Nam Saat. This calls for an even greater scope for supporting a central co-ordinating Nam Saat that will promote accumulation of lessons learnt and documentation of best practices in accordance with the new Strategy, guidelines and the Village WATSAN Handbook.

Conclusions

- Nam Saat has proven its ability to promote sector developments;
- The Nam Saat Programme has made significant contributions to the development the WATSAN Strategy in Laos by:

  (a) Sharing the lessons learnt from the project;

  (b) Promoting the development process;

  (c) Preparing of a Draft Revised Strategy based on good international practices in 2004;

  (d) Preparing guidelines to facilitate the implementation of the Strategy which have recently been complemented by a Village WATSAN Book that will assist in planning, implementation, management and monitoring of WATSAN activities; and

  (e) As an attachment to the Village WATSAN book, Nam Saat has also prepared guidelines for the composition, roles and responsibilities of the members of the WATSAN Committees.
- Nam Saat need to serve as a regulator, policy maker and monitoring body for the sector;
- Nam Saat under the Ministry of Public Health (MoPH) should still be in charge of Hygiene Promotion, which must be integrated into WATSAN planning, implementation, management and monitoring at all levels. (This is contrary to the Mid Term Evaluation, which came to the conclusion that "*Hygiene Education is an issue for which there may exist other and better-suited organisations than Nam Saat.*"). It is not prudent to delegate all the responsibility for hygiene and environmental education and behaviour change to voluntary organisations such as the Women' Union and the Youth Union.

Recommendations

- As the new Strategy, the Guideline with the 7-Step Approach and the Village WATSAN Book have all just recently been released, Nam Saat need to continue training the provincial and district staff on how to implement WATSAN in line with the new strategy and to ensure the sustainability of the Strategy and hence the facilities installed.

[4] Geoscope in collaboration with Swedish Development Advisers for Nam Saat and Sida April 2001.Field Survey February–March 2001.

- In view of the new roles and responsibilities, the large number of recommendations made in recent consultancy reports and the pending termination of the Sida assistance, there is a need for a workshop to establish the most pressing priorities. This should be a step-by-step logic approach as illustrated below.
  - i) Assess all its stakeholders' needs for services from Nam Saat;
  - ii) Develop its organisational Vision;
  - iii) Develop its Mission (reason for being);
  - iv) Develop/Confirm its Organisational Objectives;
  - v) Develop Departmental and Unit Objectives and Functions;
  - vi) Establish individual staff members' objectives and functions (in line with Job Descriptions) and action plans;
  - vii) Institutionalising a system for annual Training Needs Assessments;
  - viii) Establishing Performance Criteria;
  - ix) Institutionalising the use of Performance Appraisals;
  - x) Ensuring that staff training, career development and promotion will be based on the Annual Performance Appraisals;
  - xi) Continue to develop a "corporate culture" characterised by a development orientation, keeping "the antennas out" and being a "learning organisation" with the energy required for spearheading and co-ordinating sector development.

4. Sida Programme Design

4.1. Programme Partners and Programme Areas

The Programme has in different phases and areas been supported by many actors in addition to Sida, such as UNICEF, BTC, WB (WSP-EAP), UNDP/UNV, WHO and NGOs. Sida first started collaboration with UNICEF who has been working in this sector in Laos since 1990. The relationship with UNICEF has lasted throughout the lifetime of the Programme.

Project areas were selected based on the following summarised criteria:

1. High proportion of disadvantaged ethnic minority communities located in rural and remote areas;
2. Need, based on assessment of quality of life indicators, health, hygiene, poverty and investment potentials;
3. Provincial and district willingness and commitment to participate in planning dialogues, to improve and develop themselves to undertake initial training activities, and willingness to contribute resources at all stages in proportion to its abilities;
4. Recognition of the needs to match the political/priority areas of Government administrations;
5. Need and opportunity for synergy and integration with other rural development programmes;
6. History of limited external support to RWSS or that ongoing support could be improved or supplemented by introducing the Strategy principles;

7. Need for capacity building and institutional strengthening;
8. All other things being equal, considerate geographical balance to maximise the demonstration potential.

The practical application of so many indicators for selection must have been difficult. Only five of the Sida targeted districts are among the 47 districts in the country classified as the poorest districts, while another four are among those considered poor. In view of the focus on remote areas the timeframe of the Programme should have been adjusted accordingly. This was apparently not the case. Neither was the opportunity for achieving synergy effects with for ex. the Lao-Swedish Road Project No.2 utilised. This could perhaps have facilitated access to remote areas.

In the beginning of phase II the Programme was active in the so-called "Spearhead Provinces": Sekong, Borikhamxai and Huaphan. Sida also funded WATSAN programme activities in 14 provinces implemented by UNICEF.

During 2001–2002 the number of Spearhead Provinces was increased to six, as Khammouane, Bokeo and Sayabouri was added. In addition Sida funded WATSAN activities implemented by UNICEF in six provinces.

During the Consolidation Phase 2002 – mid 2004 two more provinces were added, Savannaketh and Saravan.

4.2. Programme Design in Phase II

The Programme has undergone many changes over the years. The objectives have therefore also been revised to reflect a new focus. The hierarchical structure usually used in designing projects in the form of the Logical Framework Analysis (LFA) approach has not been used, and many of the problems encountered in the implementation appears to be stemming from the project design. A summary of the design during Phase II is displayed in table 2 below.

Table 2. Objectives in Phase II

Over-all Objectives
• Improve access, use and sustainability of new and existing water supply and sanitation facilities • Maximise the health and socio-economic impact of those water and sanitation facilities in the context of rural development and water resources management
Secondary Objectives
1. Improve quantity and quality of new and existing water supply and sanitation facilities 2. Improve accessibility of the poorest, remote and hard-to-reach areas 3. Improve and increase health and hygiene education in remote areas and schools 4. Improve community-based participatory management, and maintenance of WATSAN facilities 5. Improve the standards of living for ethnic minorities and the rural poor 6. Reduce infant mortality and morbidity rates, especially for children 7. Give practical emphasis to gender issues at all levels in WATSAN planning, provision and management.

All the verbs were open-ended, and as such only possible to measure if a baseline had been provided in advance. Objectives constituted a mixture of means and end results. The over-all objective "Maximise health" should have been written as a result of "Improved access" not the other way round. Immediate objective number 5 – Improved standards of living … was of a higher hierarchy than 1,2,3,4 and 7, which were rather to be seen as means or expected outputs. In addition, no project should have as many as 7 objectives. The associated 16 expected results are however very well warranted. The activi-

ties were many and quite detailed allowing for monitoring and evaluation (M&E) had the system been institutionalised.

4.3. Staffing in Phase II

The JEE has compared the staffing with the many activities to be undertaken. Looking at the ambition-level one would expect a large number of staff at different levels. The Project Document (PD) reads regarding staffing that:

> "The transition to a Lao-led, Lao-managed Programme requires substantial technical assistance especially for the first three years, with a tapering off in years four and five. Besides the direct assistance of UNICEF and UNDP/World Bank personnel, Nam Saat wishes to directly engage an international Chief Technical Adviser (CTA). He/she should work 100% with Nam Saat in training the central and provincial staff and help them to make a step-by-step transition."

Nam Saat also requested three UNVs as Provincial Advisers." The target population comprising the "poorest of the poor" was estimated at 500,000. Apart from the five international staffs recruited to the programme, the Nam Saat staffs were expected to support the Programme at all levels.

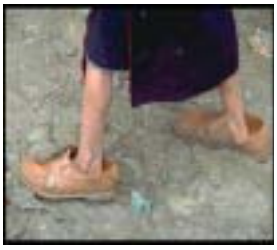
Conclusion
The Programme was not realistically staffed in comparison with the ambition level. This has been the case looking both at national Nam Saat level as at the TA component.

Recommendation
- The feasibility of a project to achieve its stated objectives should always be checked by looking upwards from the inputs (staff) available. Is it possible to carry out the activities with the suggested inputs? If these activities are correctly implemented, will they lead to the expected outputs? Will the outputs be sufficient to achieve the stated objectives? Had these questions been asked the staffing would most likely have been different.

4.4. Main Constraints in Phase II

The staff had a heavy workload to get the programme moving. This was a turbulent period in the Programme history and the collaboration with The Water and Sanitation Program – East Asia and Pacific (WSP-EAP) ended in 2001. The main constraints experienced during this period were:

- Slow transfer and disbursement of funds (2,5 years late) due to bureaucracy made adherence to the Work Plan impossible (initially funds were only used for equipment). Only in August 2001 were the first funds for implementation available;
- Conflicting objectives represented by attempting to work according to a demand-driven approach establishing a functioning community dialogue and at the same time raise the programme coverage and reach pre-determined installation targets;
- Difficult climatic and geographical conditions in Laos. The rainy season lasts for some 4–5 months. This makes accessibility to many remote villages impossible during a large proportion of the year.
- High demands on community contribution and the rather general lack of resources at village level, which made the installation costs high;
- Delays in procurements due to the procedures used at that time by Sida, UNICEF and Nam Saat, but Nam Saat organised training for the Provincial staff in procurement to alleviate the problem (discussed in Chapter 5);



- Field methodology constraints associated with the more participatory approach and insufficient attention devoted to hygiene promotion (discussed in Chapter 6);
- Programme activities too thinly spread (as a result to the desire to increase coverage).
- Nam Saat sector co-ordination was a problem as working areas of Sida funded activities were originally not co-ordinated with those carried out by UNICEF. Later on, (as from 2002) Water Supply, Household Latrines and School Sanitation have been implemented as an integrated package in the Village Development Plan.

Most of these problems resulted from the changes introduced through the National Strategy and its revision. In other words, they were to a considerable extent "teething problems".

4.5. Achievement of Objectives in Phase II

The most important aspect promoted during this phase of the Programme – namely the already discussed Paradigm shift (in Chapter 3) – appears to have been accepted and incorporated in the organisational culture of Nam Saat. As mentioned before, it comprised of the following components:

- Equity and poverty aspects both relevant for improved health – especially child health;
- Capacity building through:
- Decentralisation and delegation
  - Promotion of local ownership
  - Use of participatory approaches;
- Introduction of a demand-driven, as compared to a supply-driven approach;
- Decentralisation – initially to provincial level;
- Promotion of Community-based Participatory Management;
- Promotion of Gender Aspects – a Gender Policy was prepared;
- Networking and Coordination;

The following aspects proved to be more difficult to achieve:

- Improving health and reducing infant morbidity and mortality as changing people's hygiene behaviour is a long-term issue requiring considerably more inputs and time than was devoted to this objective;
- Practical implementation of the gender policy. Gender issues are based on values, norms and attitudes that have been developed through the history and require even longer perspective and more efforts to influence.
- Translating the promoted paradigm changes introduced in the first Strategy into field action.

Conclusions on Phase II

With such an extensive transition, that the Programme went through the JEE concludes that:

- The Programme has managed surprisingly well to embrace the new ideas, even if actual behaviour may require additional time to mature into what is called habit formation, especially at district level as the effects have not yet fully trickled down;
- The tasks associated with improving hygiene, sanitation and environmental health were underestimated. These activities require more frequent and participatory approaches and a longer timeframe in order to have an impact on behaviour and the prevalence of diseases.

4.6. Programme Design in Phase III

The objectives were rephrased, but in essence the content was similar to that of phase II, although the emphasis on quantity of schemes/coverage was reduced and a more facilitating role focussing on supporting and institutionalising the new RWSS Strategy was introduced. The 18 months extension was originally planned to be implemented during a 24 months period, but it was later on abbreviated to 18 months without removing any tasks or resources. Below are the stated objectives during this phase:

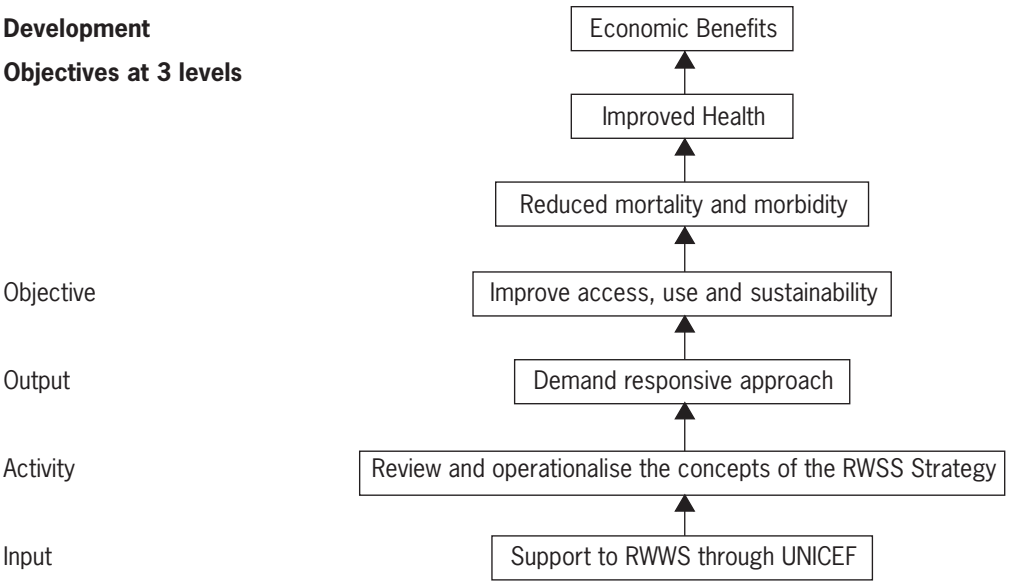
Table 3. Objectives during Phase III

Over-all or Development Objective
• Through supporting a demand responsive approach in rural areas improve access, use and sustainability of water supplies and sanitation facilities, increase health and economic benefits and reduce infant mortality and morbidity rates
Secondary Objective
• With continued Sida support to the RWSS sector both directly to Nam Saat and through UNICEF fully review and operationalise the concepts of the RWSS Strategy
Immediate Objectives
• Improved sector management and coordination • Revised sector Strategy which reflects the current situation • Gender considerations are actively promoted in all training activities and at all levels of water and sanitation provisions and management • Water quality is maintained at acceptable standards • Increased efficiency at Nam Saat • Increased access, use and sustainability of water and sanitation facilities • Improved construction quality of existing water and sanitation facilities • Improved affordability, quality and quantity of new water and sanitation facilities • Improved community participation, management and maintenance of water and sanitation facilities • Improved environmental health education and conditions in remote rural areas and rural schools • Protection of raw water resources and watershed management

The Overall or Developing Objective

Again, as in Phase II, there is a mixture of means and ends. "Through supporting" is a mean and should not feature in an overall objective, which should only indicate the country objective or objective of Nam Saat towards which the Programme is expected to contribute. While written in one sentence, there are in fact five objectives included in this sentence. They are of different levels of the "means and ends logic". Thus, increase health and economic benefits are higher levels (expected results from) reduced infant mortality and morbidity rates. These in turn are higher than improved access, use and sustainability. It is clear that the Logical Framework Assessment (LFA) methodology of developing a problem tree and then translating it into an objective tree has not been used. A revised hierarchy of objectives is illustrated in figure 1 below:

Figure 1. The Hierarchies of the Programme Objectives



Eleven Immediate Objectives

The Logical Framework for the consolidation phase has eleven immediate objectives each associated with means of verifications that are not by definitions means (such as actively promote women's roles in RWSS, which is rather an open-ended activity). There are apparently no indicators identified, which enables monitoring and evaluation. The objectively verifiable indicators are broad means, such as policy and planning, training and capacity building and procurement and supply of equipment.

Conclusion

The project design blurred the project focus. This has been a constraint for implementation as well as for monitoring and evaluation.

4.7. Achievement of Objectives in Phase III

The following table has been prepared to facilitate an overview of achievements:

Table 4. Achievement of Objectives in Phase III.

Immediate Objectives	Summary Evaluation
1. Improved sector management and co-ordination.	A substantial impact on the sector management and co-ordination has been achieved. This is reflected in the many types of meetings open to all agencies in the sector organised by Nam Saat.
2. Revised sector Strategy which reflects the current situation.	The Strategy has been finalised in Draft form in April 2004. The long time taken for its development was due to the participatory approach required to facilitate the ownership.
3. Gender considerations are actively promoted in all training activities and at all levels of water and sanitation provisions and management.	A Gender Action Plan[5] was prepared in the form of a 9-page table showing columns for activities, comments, targets and verifiable indicators. A timetable and integration into the Nam Saat Action Plan is required. Training records and manning tables still need to be disaggregated by sex. Gender is not yet mainstreamed.
4. Water quality is maintained at acceptable standards.	Apart from the check of the water quality before commissioning of the supply to the community, there have been no controls of water quality. Now, Nam Saat and UNICEF are planning to carry out annual WQ tests. Drinking Water Quality Targets have been established for 12 parameters. Arsenic levels will be monitored.

[5] National Centre for Environmental Health and Water Supply (Nam Saat), Gender Action Plan, undated.

5. Increased efficiency at Nam Saat	The capacity of Nam Saat is developing year by year. Nam Saat is charged with very many responsibilities. There have been five consultancies to the Programme during the last year. The recommendations made in the reports need to be translated, prioritised and incorporated into the Nam Saat action plan.
6. Increased access, use and sustainability of water and sanitation facilities.	A considerable number of water supplies and household latrines as well as school latrines have been provided and the coverage is increasing. (More details in Chapter 5)
7. Improved construction quality of existing water and sanitation facilities.	The Programme has not ventured into this, although there are problems associated with both existing and new facilities.
8. Improved affordability, quality and quantity of new WATSAN facilities.	As stated above the quality may vary but JEE got the impression that quality was acceptable. As the spare-part system for O&M is not yet well functioning affordability is still dependant on UNICEF support. Quantity lower than planned.
9. Improved community participation, management and maintenance of water and sanitation facilities.	Construction according to a demand-driven and community-based management approach in line with the National Strategy is gradually implemented, but more training is required for district staff and water committees.
10. Improved environmental health education and conditions in remote rural areas and rural schools.	Progress can be shown in terms of activities carried out, but hygiene promotion has often been a one-time event at village level – lasting about half – to one day. This can be classified as information but it is not sufficient to influence behaviour.
11. Improved sector co-ordination.	The Sida Programme has been organising weekly meetings to discuss day-to-day work, and these meetings have been open to the sector partners offering opportunities for networking and co-ordination. Other types of co-ordinating activities have also been arranged. There have also been Embassy of Sweden Monthly Meetings and Lao-Swedish Annual Reviews.

4.8. TA Personnel

An analysis of Staffing during Phase II and III can to a considerable extent explain the degree to which the Programme could achieve its desired objectives. The Performance of the long-term advisors has been crucial – especially the extent to which they have managed to promote construction of WATSAN facilities and to train the Nam Saat staffs in their fields of operation.

4.8.1 Chief Technical Advisers (CTAs)

1998–1999 was a bridging period characterised by waiting for Sida funds. Mr. Kanna Baran was the Project Manager from January 1999 to April 2001. There were two CTAs during phase II of the project. The contract of the second CTA Mr. Bo Bergman ended in March 2002, when the current CTA Mr. Jan-Erik Engström took over as from 1 April 2002.

The CTAs' main duties have been to:

- Channel funds (except for 1998–2001);
- Advise and support implementation of the new approach, and
- Raise the overall managerial and administrative capacity of Nam Saat.

The CTAs have been based at central level. Mr. Engstrom was recruited to have a stronger focus on procurement and financial management than the previous CTA. He has in addition to providing top-level management advice, carried out HRD development, budgeting, strategic- and annual planning. He has and also successfully supported the transition of the programme towards a more efficient and effective organisation the release of funds and procurement of materials. The speed of implementation has steadily and significantly increased – especially during the last year. It is unfortunate that the Pro-

gramme is ending now when it has gained its full momentum. There is a risk that it will not yet be consolidated enough to keep up the pace after 30 June 2004.

4.8.2 Rural Water Supply and Sanitation Adviser (RWSSA)

The Rural Water Supply and Sanitation Adviser (RWSSA) Bo Dahlberg has provided backstopping to the CTA with support from UNICEF Water and Environmental Sanitation Department (WES), and the World Bank Sanitation Programme (WSP-EAP). The latter input ended in June 2001. The RWSSA has also been based in Central Nam Saat in Vientiane, making field trips to the provinces when necessary. He is also responsible to the director of Nam Saat through the CTA. The importance of the RWSSA cannot be over-emphasised, as he has no less than ten main duties covering all aspects of the programme except procurement and finance, as summarised below:

i) Guide and support the implementation of the 7-Step Approach adopted by Nam Saat for mobilisation, training and implementation at village level.

ii) Guide and train Nam Saat staff of the technical divisions to strengthen their technical capacity in designing, scheduling and refining the 7 steps participatory approach;

iii) Support development of the private sector to implement water and sanitation services, train Nam Saat staff as supervisors/facilitators of private sector implementation of facilities;

iv) Provide Technical Advise on both Water Supply and Environmental Health – related to policy and strategy;

v) Assist Nam Saat in establishing an internal monitoring, evaluation and reporting system,

vi) Analyse and support dissemination of lessons learnt and best practices;

vii) Assist in identifying suitable local and international consultants;

viii) Together with the CTA co-ordinate the work of the three provincial advisers; Work closely with the Project Officer (WES) of UNICEF, the country lead resource of WSP and Sida personnel, and maintaining good relationships with the other sector partners;

ix) Support Lao participation in organisation of training, conferences etc;

x) Provide Monthly Progress Reports to Sida.

Mr. Dahlberg has made an excellent contribution to Nam Saat promoting the institutionalisation of the new National Strategy, the Guidelines, and the WATSAN Book etc. These were all major achievements during a relatively short timeframe accomplished in parallel with supporting the provinces to independently manage the programme implementation. Mr. Dahlberg who is a Water Engineer by profession has been in charge of technical, institutional and social aspects. In addition he has also been in charge of training and capacity building. Despite the good performance, these were too many duties and construction of water supplies became a priority.

4.8.3 UNDP/UNV Regional Advisers

There have been six UNV Advisers who have been providing support in one region each, from Huaphan Province in the North, from Borikhamsay Province in the Central and from Sekong Province in the South. They were all men as the RWSSA and the CTA.

UNDP/UNV Advisers

Mr. Bijay Shrestha,	Sekong, later also Khammouan and Borikhamxay Oct 1999 until Apr 2003
Mr. Marc van der Marel,	Huaphan from Aug. 1999 until Jul. 2001
Mr. Satanam Singaravadivelu	Borikhamxay from Aug. 1999 to mid 2002 and Savannakhet, Khammouan and Borikhamxay, from mid- until the end of 2003.
Mr. Set Eriksson	Huaphan from Jul. 2001 until 30 June 2004
Mr. Francois Delporte	Bokeo from June 2002 until 30 June 2004
Mr. Steffen Beier	Sekong and Saravan from Aug. 2003 until 30 June 2004

Mr. Francois Delporte has worked in Laos since 1993, first with UNICEF until 1999, then with UNDP/UNV. The work of the UNVs has in summary been to:

i) Advise Provincial Nam Saat and selected district offices and communities on all aspects of rural water and sanitation;

ii) Assist Nam Saat at provincial and district levels as regards structure and organisation in line with the decentralisation efforts;

iii) Advise on the application of the 7-Step Approach;

iv) Assist in activating the Monitoring and Evaluation (M&E) system;

v) Guide Nam Saat in the progressive reduction of subsidy levels;

vi) Closely monitor the utilisation of the Sida funds disbursed to the province,

vii) Report monthly to the director Nam Saat through the CTA/RWSSA.

The JEE had the pleasure to read an Analytical Report II[6] prepared by Mr. Bijay Shrestha, Regional Adviser in Sekong, Borikamxay and Khammouane Provinces. This report is excellent and exemplary as it offers an insight into all the complicated aspects, which characterise a WATSAN scheme.
The reports of the other advisers are all well prepared, but they more biased towards construction of facilities. It is clear that these advisors also suffered from the shortage of funds affecting the programme on and off. They had no opportunity to reach the villages for long periods of time unless they paid out of their own pocket for local transport. These advisers were the frontline workers on behalf of the Sida funded Programme staff. Success or failure depended to a large extent on their ability to reach and influence the staff at provincial and district levels as well as on their ability to offer direct practical on-the-job training at village level – yet they were not provided with transport.

4.8.4 Short-Term Consultants

The short-term consultants have been hired to implement different software aspects which the programme team did not have capacity to do, for example in the finalisation of the National Strategy, HRD, IEC, M&E and Gender. The results from these consultancies are discussed in Chapters 7 Capacity Building, Chapter 9 Information, Education and Communication, and Chapter 10 Monitoring and Evaluation. They have all been of high professional quality. Unfortunately, their inputs were mainly made during the last year. Their reports have not yet been translated into Lao and not yet been implemented by Nam Saat.

[6] Shrestha, Bijay. Analytical Report II (Final), National Water Supply and Environmental Health Programme (Nam Saat), March 2003.

Conclusions on Performance of Long-Term TA Staff

- All TAs have had a heavy workload. Despite this, they have made significant achievements within a relatively short time period.
- Despite the initial problems associated with the release of funds, the TA staffs have facilitated a substantial progress in providing WATSAN facilities to a large number of people (further detailed in Chapter 5). The CTA team has also played a crucial role in planning and promoting institutional development by promoting, a demand-driven approach through community dialogue and participation, with consideration to equity, ethnicity and gender.
- The RWSSA had a key role in these activities, but he had too many different duties. Despite hard work and excellent capacity it has not been possible to complete all assignments according to his TOR. Many of the counterpart staffs still have limited formal training in the subjects they are assigned to carry out. However, he made considerable contributions to the paradigm shift as well as to the achievement of the implementation targets.
- Despite his good performance it would probably have been better to match Mr. Dahlberg with two additional TAs in charge of HRD, IEC, Hygiene Education and Gender and Monitoring and Evaluation. This would have enabled a more participatory and sustainable impact in these components. This suggestion is especially warranted, as both the CTA and the RWSSA are water engineers.

An analysis of progress compared to recommendations made in the PAG meetings is attached in Appendix 8.

4.9. Transfer of Know How to Nam Saat Staff

There does not appear to have been any plan to build capacity and promote a "Lao-led ownership" except for the important general decentralisation to the provincial and district levels. The HRD plan issued 2002 did not specify how the transfer of know-how from the TA staff to the Nam Saat officers should be carried out. The fact that the CTA is in charge of the Sida financial contributions to the Programme means that he has the actual control and power. Nevertheless, the international experts have no doubt collaborated very well with their respective officers assigned to take over their duties. Both the CTA and the RWSSA report to the Director Nam Saat. The placement of the TA staff at central level was obviously warranted from the start, but if they were to hand-over to/build capacity among provincial staff, they have lately not been in an optimal position to do so. It may however be argued that the Provincial Advisers have to a large extent made up for the still central placement. Delegation is a gradual process that needs to be carefully planned.

Conclusions

- A plan for delegation should have been made at the project inception and at least well in advance of the phasing out the TA support;
- The utilisation of a management concept labelled "Situational Leadership" could have been a tool for delegation and mentoring activities[7]. It provides for a gradual process to be followed;
- The delegation plan should be based on the competence of the different people to delegate to. Depending on the level of competence in a specific task (low medium and high) the choice of method is made, (instruction, influence, consultation and finally delegation). An illustration to the concept "Situational Leadership is illustrated below:

[7] Situational Leadership by P. Hersay and K.H. Blanchard.

Figure. 2. Situational Leadership as a Method for Delegation

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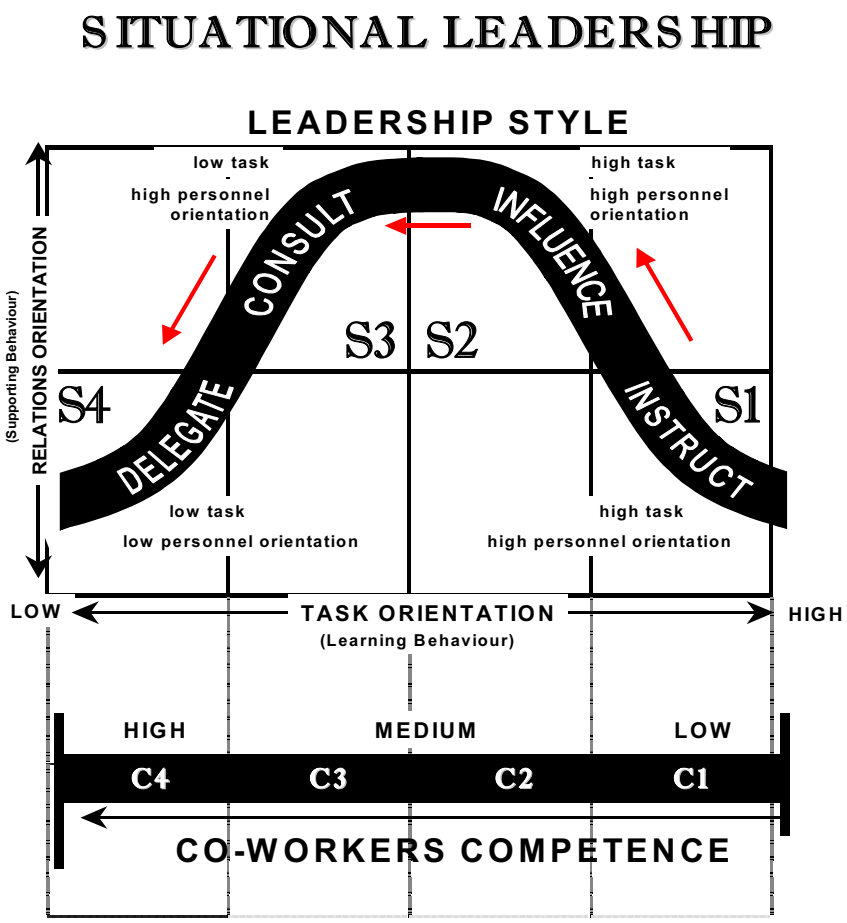


4.10. Sida Support and the Permanent Advisory Group (PAG)

4.10.1 Sida Support

Sida has provided good support through the much-appreciated monthly meetings with the CTA. This enabled exchange of information and views. These meetings offered an opportunity to achieve synergy-effects between different Sida supported Programmes in Laos. There seems to have been an even greater scope for co-ordination than was actually utilised. The Nam Saat Programme areas could perhaps have been co-ordinated with those supported by the Sida Infrastructure Development Programme or the other way round depending on which started first. In addition, there were the Lao-Swedish Annual Reviews. The most recent such meeting took place on 5 March 2004. There was also a semi-annual review. A National Seminar was organised in June 2004 to review progress and lessons learnt and to discuss the future direction.

4.10.2 The Permanent Advisory Group

The Permanent Advisory Group (PAG) was initiated during the early stage of the Transition Phase, and between 1999 and 2000 PAG produced three progress reports. PAG was subsequently dissolved. PAG supported the transition by Nam Saat from an implementing to a policy and co-ordinating public service organisation. Most of the PAG recommendations were implemented to great benefits of all concerned. While the PAG meetings provided good support, there were also some less desirable results. PAG Reports emphasised increased coverage in terms of construction. This should primarily be an issue of mobilising more people. The programme needed a proper Training of Trainers (TOT)

approach, and Nam Saat staff has also acted as TOTs, but it takes time to build capacity. A stronger reliance on the private sector was suggested by PAG and successfully implemented, but the private sector also needs time and support to develop. Similar programmes in many other countries organise training courses for the private sector to speed up implementation. Slow procurement was highlighted by PAG as an underlying cause of delayed implementation, but Sida had itself not released funds in an expedient fashion. No money was released between April 2001 and June 2002. The disappointment at Sida when only 45% of the allocated funds were utilised is understandable, but the PAG may have forged a too strong perception at different levels that the pre-determined (externally imposed) construction targets were more important than quality and sustainability. Due respect is however given to the suggestion to review the methodology. Notwithstanding the benefits expected to result from the use of the new Strategy and Methodology all some ideas may still warrant further analysis. To get away from the problem of capacity building at community level by simply referring to NGOs and voluntary organisations is unfeasible. Whatever cadres of people you use, they will invariably need training. Someone has to pay for it, and it will take time. The PAG mission at one stage recommended hiring three more TAs – a suggestion that appears highly justified, but unfortunately it was not implemented. These TAs were:

- One for private sector relationships and private entrepreneur development,
- One for refinement of the field methodology and the relationships with actors from a community perspective, and
- One in management, planning, financial management, decentralisation and capacity building.

It was stated that hygiene education should be continued by UNICEF who would also cater for the school programme. This recommendation is discussed in Chapter 8 Hygiene Behaviour Change.

Conclusions on PAG Support

- PAG has provided good support to the institutional development process culminating in the revised National Strategy and its attachments, a revision of the subsidies, involvement of the private sector in construction activities, and made attempts to promote a national handpump.
- PAG has also actively promoted the implementation of KAP Surveys, preparation of an HRD Plan, a Gender Action Plan, IEC and M&E Consultancies, but these took place too late to have a real impact on the Programme before the end of Sida support. The reports have not yet been translated to Lao to enable future implementation.
- Sida did not follow the recommended staffing suggested in the PAG, and no long-term software TAs were hired to match the CTA and the RWSSA.
- PAG suggested that hygiene education "to be continued by UNICEF", but:
  - Hygiene promotion must be integrated throughout the project cycle. This requires a mixed hardware software team approach at all levels;
  - Nam Saat should also be in charge of promoting developments and accumulate lessons learnt in hygiene education as in other WATSAN subjects;
  - As Nam Saat is the Department within MoPH responsible for Hygiene Education this Department must have the involvement and ownership required to spearhead and promote developments and lessons learnt within this sector. Accountability for Hygiene Education must rest with the top management.

4.11. Programme Partners

4.11.1 UNICEF

– A reliable partner procuring pumps at competitive prices

UNICEF has been a very good partner throughout the entire programme. UNICEF has long experience in capacity building. UNICEF has also supported the development of Tara, Afridev, Mark 3 and other handpumps in the past, and as a global user of these pumps developed long-term agreements with pump suppliers to purchase pumps at very competitive prices. UNICEF is therefore making all procurements of the pumps from India. Provincial Nam Saat does all other procurements and contracts. UNICEF also assists in reviewing the bidding documents from the provinces to assure transparency and compliance with the rules and regulation. The latest UNICEF audit confirmed that procurement and contracting rules by UNICEF are following international standards. Before, UNICEF was also in charge of procurement of contractors. Hence, due to financial advantages there is a continuous dependency on UNICEF for procurement of handpumps. If UNICEF would pull out, the purchase system would seriously suffer. This is a dependency situation that needs to be addressed.

– The spare-parts problem remains

UNICEF has not managed to resolve the problem of access to spare parts for the TARA hand pump. UNICEF provides spare-parts with every pump and supports the distribution of spare-parts, but spare-parts are stored in central and provincial warehouses and are not handed over to the villages.
The spare-parts are sold and used to manufacture local Tara pumps – very much encouraged by WSP and Sida at the time, but this leads to a lack of spare-parts at village level. Hand pumps are further discussed in Chapter 5 Section 3:2.

– Bureaucracy or necessary supervision and control?

Although many people complain that the administrative bureaucracy in connection with government requests involves too many steps and takes too long time, UNICEF is of the opinion that it is still necessary that they review the bidding documents from provinces to assure transparency and compliance with rules and regulations. This may delay the procurement for one or two weeks. Delays are also occurring because the government requests obtained by UNICEF are not complete with the required documentation, or the requests are made for activities outside the scope of the annual work plan.
There should be some type of performance appraisal at provincial level leading to preparation of a plan for capacity-building and ultimate delegation from UNICEF, initially matched with supervision and random spot-checks.

– Great efforts to Institutionalise M&E

UNICEF has been determined to create a reliable monitoring system, and assists in establishing a monitoring unit in Nam SAAT Central similar to the one in UNICEF. When the establishment of the monitoring system in Nam Saat is institutionalised it is expected that UNICEF will rely more and more on the Nam Saat's monitoring, and reduce field travel for their local staff for this purpose. The mission thinks that this will take both time and additional efforts at all levels, as the system has not yet been initiated. When it has started it will be necessary to have a parallel Nam Saat and UNICEF monitoring for some time until reasonable quality and quantity of data will be monitored.

– Unclear roles and responsibilities in hygiene education

UNICEF focuses on hygiene promotion through schools and partnerships with mass-organisations such as the Lao PDR Women's Union (LWU) and the Lao PDR Youth Union (LYU). These provide voluntary services as hygiene promoters and trainers at community level. UNICEF has not offered much technical expertise for software hygiene promotion to Nam Saat, although UNICEF has a full time National Officer for Hygiene Promotion and Social Marketing who has provided technical assist-

ance to the MOPE, the Youth Union and partly to Nam Saat's Hygiene Promotion Officer. Nam Saat considers that they are the government entity responsible for hygiene promotion, but there is also a Centre at MOPH for Information Education and Communication that Nam Saat could collaborate with more closely.

– *Commendable improvements of the Primary School Sanitation Programme Approach*
Based on the criticism contained in the Impact Assessment carried out of the Primary School Sanitation Programme in 2001[8], UNICEF has made a comprehensive revision of the Programme (described in Chapter 6 The School Sanitation Programme). UNICEF has participated in the recent revision of the National Strategy but some of other achievements are:

- The success of the Primary School Sanitation Programme in which about 470 schools were supplied with clean water, sanitary latrines and child-friendly teaching tools;
- Development of a variety of appreciated social marketing tools for hygiene education;
- De-worming in 23 schools substantially reducing infestation rates;
- Testing of water quality in some 380 high-risk villages for arsenic contamination and initiation of testing of water quality in 2004;
- Monitoring of the proportion of women in WATSAN Committees;
- Promotion of participation of children and young people through a "*Young Pioneers Network*" that was started in 2003. Activities include songs, mini-concerts and drama performances to promote better hygiene;
- Inclusion of hygiene education into the curriculum of teacher training colleges;
- UNICEF is determined to create a reliable monitoring system. UNICEF is establishing a monitoring unit in Nam SAAT Central, similar to the one in UNICEF.

UNICEF Constraints
- UNICEF has not managed to resolve the problem of access to locally produced handpumps and spare parts for the TARA hand pump. Spare-parts are provided along with every pump and UNICEF supports the distribution of spare-parts, but these parts are stored in central and provincial warehouses and are not handed over to the villages.
- UNICEF focuses on hygiene promotion through schools and partnerships with mass-organisations such as the LWU and the LYU who provide voluntary services as hygiene promoters, but UNICEF has not provided much technical expertise for hygiene promotion to Nam Saat.

4.11.2 World Bank Water and Sanitation Program – East Asia And Pacific

World Bank Water and Sanitation Programme (WSP-EAP) was collaborating in the assistance to Nam Saat under the Sida funding until the end of 2001. WSP-EAP wanted to promote the adherence to the 12-Step Approach according to the National Strategy lounged in 1997, but Nam Saat felt that they had been held back for a long time developing strategies and approaches and that it was now time to move ahead with implementation. UNICEF and the WSP-EAP on the other hand had no different views on the basic approach and principles of the WES programme implementation since these are guided by the National Sector Strategy. The National Strategy was developed with assistance of WSP and UNICEF and the two organisations are promoting the same principles. However there were divergent views on:

[8] Primary School Sanitation Programme Assessment 2001, Unicef WES Section LAO PDR and Nam SAAT The National Centre for Environmental Health and Water Supply, August 2001

- The status of the rural water supply sector with regard to the readiness and capacity of Nam Saat to implement the sector policy;
- The approach to demonstrate the application of principles and approaches of the national sector policy. While UNICEF agreed that WSP was demonstrating the implementation of the principles of the national sector policy in Oudomxai Province where they were piloting the approach, they believed that the success was based on a high financial and human recourse input by WSP, and that this could not be replicated or be scaled-up with the existing resources of Lao PDR. Thus, WSP were most progressive, UNICEF balancing in the middle and Nam Saat not yet ready to go for a change.

In addition, the Draft Project Completion Reports prepared by the WSP-EAP covering the period January 1998–June 2001[9] highlighted the following constraints in implementation:

- Project Objectives were not realistic with nine development objectives and 19 objectives relating to six different areas. Precise and focused objectives were required;
- Project supervision by Sida was weak despite the frequency of supervisory missions – "probably excessive" as mentioned in the Mid-Term Sida Review – but lacked priority setting regarding the main issues to be solved and making it difficult for the implementing partners to understand what issues were to be addressed up-front. This was exacerbated by the fact that issues addressed during one PAG review mission were not followed up in the next. It was also not clear how far recommendations were actually instructions or just mere recommendations. The timing of the missions also did not correspond to the planning cycle of Nam Saat and its partners. (In Laos each province finalises their annual plans in May each year – while Sida approved the work-plan in October or November.) Provinces were not consulted on the proposed changes, which may have reduced the effectiveness of the work-plan as a tool for sector planning and caused delays.

WSP-EAP at that time suggested the following remedies to the weak supervision, such as:

- Clarification of roles of the PAG and Sida;
- Better briefing about the focus of the supervision missions;
- Timing of the supervision to fit with the national planning sequence;
- Set-up of a supervision team that includes all the major partners involved so the project can be supervised by all of them together – preferably in the field. This may also result in changing the attitude towards supervision as a positive experience that helps to improve the performance of the project.

Conclusion

The JEE finds the comments well justified. As the new Strategy and Guidelines represents important steps towards attempting to standardise and develop procedures, it was unfortunate that WSP-EAP has not been involved during the revision of the Strategy. WSP-EAP has a wealth of international experiences to contribute for ex to the development of the WATSAN Handbook. WSP-EAP is also stronger than the others in promotion of participation and gender aspects.

Recommendations

- Despite the long experiences both UNICEF and WSP-EAP have in the WATSAN sector and despite the preparation of the around 75 reports on the Programme, there does not seem to feature

[9] Lao PDR Country Office, Water and Sanitation Program – East Asia and Pacific (WSP-EAP), Greater Mekong Sub-Region (GMR) Program, Draft Completion Report January 1998–June 2001, Oct. 2001.

a professional discussion on: What minimum inputs and what approaches are absolutely necessary to achieve an acceptable level of sustainability and effective use of the WATSAN facilities required for reaching the objectives of the programme? This could be a topic of a sector workshop.

- Support agencies and donors should be more patient with the disbursement of funds, and provide support only after community processes are established and followed. (During the past 18 months UNICEF did disburse funding only after the community participation processes – community dialogue, choice of technology and the village agreement etc. were completed and documentation obtained).
- More attention needs to be placed on the needs of the provinces, districts and WATSAN Committees as service providers.
- The villagers (not only the WATSAN Committees) will be the ultimate targets for transferring responsibility for the programme. While limited training of WATSAN Committees has been provided, the programme has not yet reached the villagers. (In other similar programmes in other countries the WATSAN Committees also have a role in informing and training community members on choice of designs, user fees, O&M and hygiene and sanitation).
- Only when the programme reach down to individual household level will it be possible to influence WATSAN behaviour and reduce infant morbidity and mortality.
- Nam Saat and the implementing agencies could also organise internal participatory monitoring and follow up involving the provincial and district teams as well. This also offers an opportunity to try out monitoring procedures and forms as a gradual move towards institutionalising M&E – a secondary output.

4.12. Central or Provincial Programme Focus?

The TOR for the JEE raised the question if a focus at the Provincial level would have been more advantageous than a Central Nam Saat focus. The objectives of decentralising and promoting capacity to provide WATSAN at lower levels is no doubt the primary and very urgent objective as a mean to improve health and to combat poverty. However, this is not in conflict with the need to strengthen Nam Saat Central, but the limited TA staffs makes it difficult to manage doing both. It would probably have been easier and quicker to provide the villages with WATSAN facilities through a direct focus at districts and villages. The disadvantages would have been that Nam Saat would have been sidestepped with a risk of reduced ownership, limited opportunities of replication, co-ordination and accumulation of lessons learnt. Institutional strengthening is a prerequisite for long-term sustainability. As the provincial and district Nam Saat is gradually building up their human resources the opportunities for direct implementation at district level will increase as the staffs will be familiar with the National Strategy, the Guidelines in the form of the 7-Step Approach as well as the Village WATSAN Book.

Conclusions

- Sida could probably have provided WATSAN facilities more effectively to the villages through a more direct approach than through central Nam Saat.
- However, through the support to Nam Saat strategies and approaches were developed through a participatory approach. The important milestones that Sida, WB and UNICEF have supported Nam Saat in producing will ensure quality assurance and long-term sustainability and enable large-scale replication.

- Supporting Nam Saat was therefore the proper thing to at this stage, but the Programme appears to have been "top-heavy" as far as allocation of resources and efforts are concerned (an aspect further discussed at the end of Chapter 5).
- Perhaps a more pertinent question is whether the Programme has really managed to reach down to household level – a prerequisite for achieving behaviour change as a mean for improving health.

Recommendation

- According to project classification this is a project with three purposes:

– Institution building (of Nam Saat);

– Direct Support (to villages by providing WATSAN supplies and to build capacity to plan, implement, manage and maintain these facilities); and

– Promotion of Public Awareness and Behaviour Change (aiming at the households in the villages).

Thus, capacity building features in all the three components as a prerequisite for sustainability. As re-iterated before, a TA post in Capacity Building should have been included in the CTA Team.

5. WATSAN Facilities

5.1. Water Resources

5.1.1 Surface Water Investigations

Rivers, streams, springs and also rainwater are used for rural water supply schemes, but surface water is not as clean as ground water in the wet season. Before selecting the water source for the water supply the water quantity is measured and some parameters of the water quality is tested. There are exceptional cases when water facilities installed by this programme is producing water that is not potable. There is also a risk of arsenic contamination in some areas.

Household (HH) chlorination is an option still worth support and BTC, WHO and the WB have been engaged in this. One officer at Nam Saat Sekong Province was trained on HH chlorination in June 2000, but the system has not been introduced. Nam Saat staffs involved in water quality need more training on water quality aspects. Before commissioning of a water supply a test must be made, but after that there have been no controls of the water quality. However, there are plans to introduce testing on an annual basis in collaboration with UNICEF. The equipment is now available at Central Nam Saat. The cost will be 50–60,000 Kip or equivalent to about USD 5–6 per year, which each village is to pay for. UNICEF has supported Nam Saat Central to organise training on assessment of water quality. Training has also been organised for provincial and district Nam Saat staffs that will carry out the water quality tests in their target villages on a regular basis. Therefore, one can say that communities assisted by the Programme will have access to safe clean water.

5.1.2 Ground Water Investigations

Ground water surveys are not scientifically carried out in the project area, but some ground water surveys have been done by others, like the Japanese International Cooperation Agency (JICA). Siting of boreholes depends on the number of households and the selection of sites made by the community. With reference to design criteria, one borehole is expected to supply 20–25 households with water.

Water quality tests are conducted after hand pump installation. There are Water Quality Targets for 12 parameters, but there are not yet comprehensive National Water Quality Standards and no in-depth water quality-monitoring system in place. However, Laos is guided by The World Health Organisation (WHO) recommendations. Efforts are made to develop a MOPH Rural Water Supply Drinking Water Guideline and Regulatory Framework. Water testing after hand pump installation is too late and therefore jeopardise community health. It is also a waste of time and money for the construction – if the water quality is found to be below standard as in the case of arsenic contamination. Water quality tests must be conducted before hand pump installation. Bacteriological tests should preferably be done annually after the rains when there is always risk of pollution from latrines, etc.

5.2. Water Facilities

5.2.1 Boreholes

Nam Saat staffs were trained as training of trainers (TOTs) on the methodology of borehole drilling and also on operation & maintenance. Training on these subjects were organised at central and provincial levels by trainers from Nam Saat Central. The training was carried out in classes as well as through on-the-job-training.

During 1993–1999, UNICEF has procured 23 drilling machines with spare parts and distributed them to provincial Nam Saat offices such as; Champasak, Salavanh, Bolikhamsai, Sekong (in 2nd phase), Sayaboury, Oudomxai, Luangnamtha, Xiengkhouang, Savannakhet, Khammouane, Vientiane and Vientiane Municipality. Many of the drilling machines were also provided by other External Support Agencies.

Provincial Nam Saat staffs are able to drill boreholes by themselves without support from Nam Saat Central, but spare parts for drilling machines are still a serious problem. Even if Provincial Nam Saat staffs have experience and good success on drilling, they still have problems to get a sufficient water quantity through borehole siting. In these days, many private sector contractors (around 250) have been involved in the construction programme. During phase II, boreholes were drilled for 295 wells, which served about 29,500 people and in phase III, boreholes were made for 155 community wells, which served about 15,500 people.

Recommendations

- Provincial and district Nam Saat staffs and the private sector need more training on borehole drilling and methodology for selection of the borehole sites;
- There is also a need for procurement of more spare parts for the drilling machines;
- Hand drilling should be promoted where the ground water level is high, and
- Nam Saat need to train staffs and villagers on hand-drilling techniques.

5.2.2 Gravity Fed Schemes (GFS)

Nam Saat Central still takes responsibility for survey and design of GFS in most provinces. That is why the survey and design for GFS is taking a long time. Even if the provincial and District Nam Saat staffs have been trained several times on how to carry out a GFS survey and design, they are not yet able to do it properly. So far, some provincial Nam Saat staff has done this, but the data and the bill of quantity are not correct. There is still a lack of equipment for GFS survey and design in the Provincial and District Nam Saat. Despite this problem, there is a case when the provincial Nam Saat has completed data collection and made a topography survey of a GFS for a village and sent the data to Nam Saat Central for design. The design was completed and possible to implement, but the actual water from the

intake only flows through 4 of 8 stand posts in the village. The reason was a mistake in the topography survey. Nevertheless, Nam Saat staffs have gained more and more experience, and they are generally able to provide good quality supervision of the construction works without support from Nam Saat Central.

Involvement of the private sector in construction work is good for increasing the quantity of GFS, but they have to use learning-by-doing to upgrade their competence. The achievements of GFS construction in the transitional phase comprised 34 community schemes, which serve about 11,900 people. In the consolidation phase 47 schemes were constructed. They serve about 16,450 people.

Recommendations

- Nam Saat staffs need continuing in-service training in the form of short courses on GFS survey and design – both class-room training as well as on-the-job-training with assistance from Nam Saat Central staffs;
- The programme should provide enough equipment for the GFS survey and design to provincial and District Nam Saat offices;
- The water quality of surface water sources varies seasonally. In the wet season the water is very turbid, contaminated by solid particles from land erosion, and people get scared to use the water. In other instances, the water scheme might get blocked and cease to function. To solve this problem, the GFS design should include a simple water collection tank and a simple filter;
- If private sector contractors had been trained, implementation progress and quality would have been higher.

5.3. Choice of Technology for Water Supplies

5.3.1 Design Criteria

Nam Saat is using standardised design criteria for planning of water supplies as shown in table 5 below. The options available are shown in table 6. The criteria and water supply options are very useful for planning design when using the community dialogue processes.

Table 5. Design Criteria for Water Supplies

Design criteria	
Target year	15 years
Annual Population Growth Rate	2.9 %
Unit Supply Rate	45 lpc/day
Population per water tap	80–120 persons
Minimum Flow Rate	0.2 l/sec
Water Supply Hours	14 hrs max (5:00–19:00)

Table 6. Rural Water Supply Options

Option of water supply	Estimated Material Cost (US$)	Drilling Cost (US$)	Recurrent Cost (US$/year)
I. Improved Traditional Practice	10–15	None	None
2. Protected Dug Well	300	None	20
3. Protected Dug Well with Hand Pump	360	None	50
4. Spring Protection	500–1000	None	20
5. Borehole with Tara Hand pump	200	300–400	50
6. Borehole with Afridev Hand Pump	300	300–400	50
7. Rain Water Collection	45 for 2m3 tank 110 for6m3 tank	None	50
8. Gravity Fed System	1000–6000	None	210

5.3.2 Hand Pumps

Tara and Afridev hand pumps are the ones promoted by Nam Saat. Indian Mark III Handpumps have not been installed since 1998 because of the corrosion. Now, Afridev hand pumps with PVC piping dominate the market. It is expected that along with the electrification of rural areas people will remove the handpumps and install electrical pumps. UNICEF order and procure the hand pumps and spare parts directly from India. Central, Provincial, and District Nam Saat staffs and village volunteers have been trained in Hand pump installation and repair.

The Study of the People's Pump

The earliest knowledge of the People's Pump technology is stemming from a USAID health project in 1969, but the technology was not actually adopted on a larger scale until the early 1980s. The USAID project demonstrated the technology using a mechanical drilling rig, and villagers felt that they could not reproduce it manually. The pump began to re-appear in the early 1980s when it was demonstrated that it is possible to drill manually on the Bolavens Plateau.

The main objectives of the People's Pump study were to:

- Establish key factors determining the acceptance of the pump technology;
- Assess the technical potential and limitations of the pump;
- Study the maintenance requirements, and
- Demonstrate interest and commitment in promoting local technology that is sustainable.

The overall focus of the study was on the social aspects related to technology transfer, rather than the technicalities of the pump mechanism. In a short and medium-term perspective the People's Pump offers an indigenous alternative. The main reason for the popularity was the simple level of technology and locally available materials for making the pump. In many cases, the People's Pump did not meet the household's needs all year round. When this was the case, the household relied on other existing water sources. However, many of the previous water sources had fallen into disrepair due to the reliance on the People's Pump. This was especially the case with open dug-wells. Sometimes people choose to use the People's Pump despite having access to a Tara hand pump, which the villagers themselves consider to be of better quality. Even though the water quality from the People's Pump was lower, the proximity of the People's Pump to the home as compared to the Tara hand pump made it favourable. In a few cases, the Tara hand pump was very near to the house, yet people installed a People's Pump

on their property and used both. In cases where the Tara hand pump was very near the house, people used their own People's Pump when there was a queue to the Tara. In some cases, the People's Pump was there before the Tara hand pump, but in most cases the People's Pump was built after, because people know from experience that the Tara hand pump will break down in future and it may not get repaired. In general, people exhibited a strong preference for having their own household pump. A focus-groups discussion gave the following results:

Good	Bad
• Nearby • Easy to use • Parts found in village • Can make one on one's own • Cheap • Can repair on one's own	• Piston often breaks • Still need to invest money • Sometimes dries up • Not the cleanest source

The Rope Pump

Attempts have been made to develop another locally manufactured hand-pump, the Rope Pump, which is promising. Nam Saat has just tried out some, that have been modified and they have now been used for one year. They seem to function very well for dug wells up to 8–10 m, but they are not function well in boreholes. Nam Saat has earlier bought 170 of these pumps, which will now be modified and put into use. Nam Saat is also working on a proposal for a spare-part supply based on a revolving fund.

Conclusions

- UNICEF procures Tara and Afridev hand pumps from India with the spare parts;
- Afridev Hand Pumps were replacing India Mark III handpumps to improve water quality. The Suction pipe of Afridev is made of PVC to avoid corrosion;
- Central, provincial, and District Nam Saat staffs and Village Volunteers have been trained in hand pump installation and repair;
- The WATSAN Committee Hand pump Caretakers are entrusted with the Operation and Maintenance (O&M) but the committees are not very active;

- The WATSAN committees have been effective prior to and during constructions;
- Villagers are willing to pay the monthly fee for the maintenance based on the Village Agreement (500 or 1000 kip/month/family);
- Some villages collect fees for minor repairs in advance, while other collect money when the water schemes have already broken down;
- The People's Pump did not meet the expectations of durability;
- Nam Saat is now going to modify 170 Rope Pumps and assess how these will function in the field;
- The core problem is the lack of a system for maintenance, including spare parts supply, but Nam Saat is working on a solution in the form of a revolving fund.

Recommendations

- Villagers should collect money not only for minor repairs but also for medium and major repairs;
- UNICEF's assistance in procurement of handpumps is still considered to be the best solution in terms of quality and price;
- The hand pump spare parts are not available in local shops except spare parts for GFS. To reduce time, energy and costs, the spare parts must be kept in the villages or at least be available at District Nam Saat instead of keeping them at the Provincial Nam Saat;
- In future, Nam Saat should also organise a stock of spare parts in collaboration with a private company that could to be an agency for spare parts supply;
- A private company should also be encouraged to produce local hand pumps instead of relying only on imported hand pumps. The Rope Pump might be a possibility.

5.4. The Village WATSAN Committee

During the Village Dialogue, there is an assessment by the Village WATSAN Committee of the demand for water and sanitation. Two Village Volunteers are selected but members of the committees are usually 2–3 persons, and their roles and responsibilities were not very well clarified in the past. In such cases the committees are not functioning. For sustained use of the facilities, the WATSAN Committee should be re-elected by the villagers. The members required for the committees are 5 to 7 persons such as the village chief, deputy chief, accountant, a secretary, technicians and volunteers for hygiene promotion. Two are supposed to be women, one in charge of finance and one representative of the LWU, who will be in charge of hygiene education and M&E. Roles should be listed clearly. The committee must be trained on construction and materials management before starting construction, on construction of facilities during construction work, and on O&M, book keeping and hygiene education after completing the construction. Until now the training has not attained sufficient emphasis, but Nam Saat has now standardised the formation and guidelines for the committee through the newly introduced Village WATSAN Book. This is expected to have a very positive impact on planning, design, construction, management, O&M and M&E of the WATSAN schemes. However, the sustainability of the committees would be enhanced – according to lessons learnt in other countries – if it would be a better equity among those nominated. To have 2 women of 6–7 members is not sufficient but at least a good start.

5.5. Operations and Maintenance (O&M) of Water Schemes

5.5.1 Responsibility for O&M and Access to O&M Funds

The WATSAN Committees are entrusted with the O&M of the water schemes. The formation and functioning of the WATSAN Committees need to be more effective. Supervision and guidance from provincial and District Nam Saat need to be intensified, as many committees are not active. This problem is the result of the limited mobilisation and training of the WATSAN committees carried out in the past.

Villagers are willing to pay a monthly fee for the sustainable and effective use of water facilities. How much they have to pay per person or per family is dependent on the agreement among villagers during the signing of the Village Contract. The water fee intended for minor repairs has been collected in some villages, while other villages collect money only when the water schemes have already broken down.

Recommendation

• Communities should also contribute cash for medium and major repairs for establishment of a Water- and Sanitation Fund in addition to the monthly fee. The money should be kept in a bank if there is one in the area or somewhere else where it is safe.

5.5.2 Hand Pump Caretakers

Nam Saat Central staff has trained provincial and District Nam Saat staffs on Hand pump installation and operation & maintenance (O&M). Similarly, District Nam Saat staff has trained at least two village volunteers per village in O&M for hand pumps after completing hand pump installations. These Village Volunteers have become Hand pump Caretakers who repair the broken hand pump as required. But they must also train other villagers on O&M if they no longer want to continue as hand pump caretakers. This would enable that these newly trained villagers take over this job. This is an important aspect of sustainability.

5.5.3 Access to Spare Parts

Spare parts will continue to be imported. All handpumps are to be delivered with a set of spare parts. Usually UNICEF provides spare parts for Tara and Afridev hand pumps (imported from India).
The spare parts should be kept in the villages, but this is seldom the case. In reality, the spare parts are kept in Provincial or even in Central Nam Saat stores. Whenever village volunteers need to repair their hand pump they have to travel to the Provincial or Central Nam Saat offices where they get the spare parts free of charge or buy them. The village volunteer may have to pay for transport expenditure, travel for a day to the district or more to the province, or even Nam Saat headquarters to get the spare part which maybe only cost equivalent of 0,20US$. He might have to wait for authority to get it from the store, and stay over night and pay for meals and guesthouse expenditures before returning the next day. Thereby he is incurring expenditures, which are many times higher than the negligible cost of the required spare part. As the spare parts are so cheap and the number of pumps still fairly limited, it is not a viable business to manufacture them in Laos. Nobody appears to be willing to do it. In retrospect, it might have been better to support and promote locally produced pumps, which exist in Laos.
Now, Nam Saat will have to continue supplying the spare parts, or maybe a gradual change of selection of pump will be possible in future.

5.6. Hygiene & Sanitation Facilities

5.6.1 Latrine Options, Costs and Preferences

Below is a display of the different options for construction of household latrines. People are presented information materials showing different types of latrine options and associated costs in the form of a so-called "Sanitation Ladder" from the simplest version to the most expensive one. :

Table 7. Table Rural Sanitation Options

Options	Estimated Cost US$*
1. Improved Traditional Practice	None
2. Conventional pit-latrine	None
3. Lid or covered latrine	40
4. VIP latrine	60
5. Pour flush latrine	75
6. Septic tank toilet	200–250

*= Include labour and local material. A Pour flush latrine today costs around 15 dollars of imported material, plus labour and local material.

Pour flush latrines are more popular in rural areas compared to dry pit latrines, as they are odour free and convenient. The Programme is promoting construction of pour flush latrines with bamboo lining of the pit instead of the previously promoted concrete lining. This is a good idea for rural latrines. Its advantages are:

- Low cost;
- Simple construction;
- Limited needs for imported materials;
- Villagers can construct them by themselves;
- The concrete slab can be moved to a new pit when is full, and;
- Wood/timber can be used instead of bamboo for those who prefer that.

Due to the problems of ensuring availability of water for flushing and the difficulties involved when starting to use latrines the TA advisers as well as the JEE are of the opinion that VIP latrines with bamboo lining would be a better option for rural areas as an entry point for sanitation. These would be cheaper and more environmentally friendly. But there is a problem of smell and flies if it is not properly built. The slab can be moved to a new latrine later on when the pit is full. However, as participatory methods in the form of the so-called "Sanitation Ladder" are used, it is up to the respective family to decide on the design as "an informed choice".

5.6.2 Siting and Construction of Latrines

The latrine site must be located at least 20m away from water source, especially shallow wells. Water should be available for latrine use, (if pour flush latrines are chosen) and the latrines should be located on a high slope where the ground water level is low to prevent erosion. Villagers construct their household latrines at convenient places close to their houses, in their garden and of course far away from water sources. Local initiatives are often taken to promote construction of bamboo-lined pit latrines. Pour flush latrines with bamboo lining is the most popular option for rural and remote areas. Its cost is lower than for a VIP latrine. According to the design standard of latrines, the latrines are nowadays well designed.

In case there is hard rock near the ground surface or the water table is too close to the ground surface, the latrine can be built on a mount. The pit walls then need to be built up at least 1 meter (before the mount is constructed). A pit built like this might be expected to last about 8 years or a double pit could be used. Then it does not matter so much if the pits are shallower than recommended as compared with a single pit, which fills up more quickly, because they can be used in an alternating fashion. But one pit needs to be emptied every two years. While latrines have been constructed in the villages both use as well as maintenance are still at a low level.

5.6.3 Operation and Maintenance of Latrines

Latrines have been constructed, but the operation and maintenance is still a weak aspect. While most people use the latrines, the field visits corroborated by KAP studies and field visits – cited in Chapter 10 (Monitoring and Evaluation) – showed that not all households who have constructed latrines use them. Some villagers use them as storages. In areas with old latrines, some of the huts are broken. There are usually no hand-washing facilities nearby. The latrines, which are used, are often not clean. (Reference is made to the Field Reports from the Sekong Province in Appendix 9.) The JEE may have visited some areas, which were not representative as Nam Saat is of the opinion that newer latrines are built according to a better standard. Nevertheless, Nam Saat and the WATSAN committees still have to promote hygiene behaviour and use of hygienic latrines.

Conclusions

- There has been too little hygiene and sanitation (HESAN) promotion;
- In many areas people are told to build latrines as a pre-condition before they get a protected water supply. Then the feeling of participation and ownership is reduced;
- Latrines which do not qualify as hygienic latrines i.e. are not clean or of poor construction quality need to be improved by the villagers;
- Some people who have pour flush latrines do not have water there;
- Others may use the latrines as storerooms and keep them locked. In some ethnic areas people do not use the latrines they have built for any purpose. It was just built to qualify for access to water.

Recommendations

- Latrines are usually constructed according to the standards, but sometimes the ceilings of the huts are too low, and it is not convenient to get inside. The technicians should promote the design standard, but this is ultimately up to the family to decide.
- Nam Saat have Monthly Progress Report forms for provincial and District Nam Saat. But more columns are required for:
  - Number of broken down water schemes,
  - Number of broken down latrines, and
  - Number of people using latrines.
- Monitoring should include health related data;
- Nam Saat needs to focus more on sanitation.

5.7. Private Sector Involvement

The private sector has been more and more involved in construction of water schemes, family latrines and school latrines. There are now about 250 private contractors working with Nam Saat. The contractors can build facilities in a shorter time than Nam Saat can do itself. Transportation of the materials costs a lot of money in comparison with the total costs. Involvement of the private sector, to participate in development activities is a new phenomenon in the Lao PDR, so it is natural that there are some initial problems. The decentralisation of procurement from central to provincial level made it necessary to train the provincial staff in procurement. Procurement is done according the government regulations.

Conclusions

- Involvement of the private sector in construction of sanitation and water supply facilities has strengthened private sector capacity and speeded up implementation;
- Decentralisation of procurement from central to provincial level makes it necessary to train the staff in tendering and procurement. This has been done;
- The communities are still more used to work with government authorities rather than with private companies, but this is gradually changing.

Recommendations

- Nam Saat needs to have clear criteria for selection and appointment of private contractors;
- Provincial and District Nam Saat have to explain the benefits of hiring private companies;
- District Nam Saat staff should monitor the quality of construction work and offer advice to the villagers;
- The private companies need more encouragement in paying attention to quality service as compared to profit;
- This could be done by introducing a criteria related to previous quality in work provided by the contractor. Those not performing well would then have a reduced chance to be awarded another job;
- UNICEF has initiated a system of paying the contractor in portions according to construction progress and quality. This is perceived as resulting in improved performance.

5.8. Performance in Construction of Water Supplies and Latrines

5.8.1 Number of Facilities and Potential Users

About a total of 1,117 water schemes, 27,130 household latrines have been constructed, and UNICEF and Nam Saat built 474 water supplies for schools and 463 school latrines during 2000–2004 as detailed in the table below. There was no construction during the years of 1998–2000, due to delayed funds.

Table 8. Facilities Constructed 2000–2004

Facilities	Units	2000–2001	2001–2002		Jan. 2003 –Jun. 2004	Total
Community Water Supplies		**UNICEF**	**Nam Saat**	**UNICEF**	**UNICEF**	
GFS	Scheme	14	9	11	47	**81**
Boreholes	Well	91	35	169	155	**450**
Dug wells	Well	71	67	105	136	**379**
Spring Protection	System	0	0	0	3	**3**
Rain Water Jars	Unit	0	25	0	179	**204**
Sub total	**System**	**176**	**136**	**281**	**520**	**1,117**
Sanitation Facilities						
Household Latrines	Unit	5,338	7,207	3,454	11,131	**27,130**
P. School Water Supply and Sanitation						
School Water supplies	System	129	0	183	162	**474**
School Latrines	Block	129	0	188	146	**463**

The Programme has calculated the number of beneficiaries of the water systems to around 114,000 people, and those who have got household latrines to 163,000. Around 117,000 children have benefited from improved water and sanitation in schools as shown in table 9 below:

Table 9. Users of WATSAN Facilities Constructed 2000–2004

Facilities	Units	Total of Facilities	Average of User per Unit	Total of Users
Community Water Supplies				
GFS	Scheme	81	350	28,350
Boreholes	Well	450	100	45,000
Dug wells	Well	379	100	37,900
Spring Protection	System	3	350	1,050
Rain Water Jars	Unit	204	6	1,224
Sub total	System	1117		**113,524**
Sanitation Facilities				
Household Latrines	Units	27,130	6	**162,780**
P. School Water Supply and Sanitation				
School Water supplies	System	474	250	**118,500**
School Latrines	Block	463	250	**115,750**

As can be seen from the table below, the achievements were very good in relation to the plan for 2003 to 2004.

Table 10. Performance in Construction of WATSAN Facilities 2003–2004
(From Jan. 2003 up to Jun. 2004 in 8 Provinces)

Facilities	Plan	Achievement	Balance	Achievement %
Community Water Supplies				
GFS	46	47	1	102
Boreholes	180	155	(25)	86
Dug wells	132	136	4	103
Spring Protection	3	3	0	100
Rain Water Jars	179	179	0	100
Sub total	540	520	(20)	96
Sanitation Facilities				
Household Latrine	**11 478**	**11 131**	**(347)**	**97**
P. School Water Supplies and Sanitation				
P. School Water supplies:	**161**	**162**	**1**	**101**
P. School Latrines	**137**	**146**	**9**	**107**

5.9. Lessons Learnt and Conclusions on WATSAN Supplies

The centralised system has gradually been decentralised to province and district levels and the programme is more and more using a demand-driven and community-based approach. Implementation has gained momentum during – especially the last year. This suggests increased competence but future reviews of the sustainability will determine if the construction speed is matched with sufficient capacity building at community level.

- In the early stages of the programme emphasise was put on delivery of water and sanitation services without having established a strong link with the end users – the community. This resulted in fast increase in construction of water and sanitation facilities in programme areas, but it left many schemes unattended and non-functional. Experience has shown that provision of water supply and sanitation facilities were not enough.
- Therefore the Programme has been reoriented towards a demand-driven and community-based approach emphasising the importance of informed choice and participation;
- Nam Saat implements central Government's decentralisation policy by devolution of power to Provincial Nam Saat and to some extent to the district authority;
- More attention is needed to ensure safe water, by water quality surveillance as arsenic and other substances have been detected in the southern part of the country. Nam Saat, WHO and UNICEF has initiated collaboration and plan to carry out annual WQ tests;
- Greater involvement of the private sector in construction of water supply and sanitation facilities has built private sector capacity and increased coverage;
- The Programme has during the consolidation phase reached 9% of its targets with reference to 750 water and sanitation supplies for primary schools. The proportion pertaining to household latrines was 72% of the target of 15,500 latrines. These are very good results.

- The progress of implementation has increased substantially during the last phase of the Programme as provincial and district staffs as well as the private sector contractors increased their competence. Out of the total budget for the period 1998–2004 amounting to about USD 5,595,000 approximately USD 5,145,000 or 92% will be spent by 30 June 2004. It is further forecasted that the Sida Nam Saat programme will have spent around 89% and UNICEF 93% of their respective budget allocations.

6. The School Sanitation Programme

6.1. Background on School Sanitation

Since 2000, UNICEF and its partners have been implementing a pilot School Sanitation and Hygiene Education (SSHE) project in six countries: two each in Latin America, Africa and Asia. The overall aim of the project is to ensure that the health and education of school-aged children improves through better hygiene behaviour and a healthy school environment. The three focus areas of the pilot projects are the development of approaches to promote life skills, a healthy and safe school environment, and outreach to families and communities. This is a Programme of great importance and opportunity to influence the next generation.

While all children need a sanitary and hygienic learning environment, the lack of sanitation and hygiene facilities in schools has a stronger negative impact on girls than on boys. Girls need safe, clean, separate and private sanitation facilities in their schools. Without such facilities, schools become unattractive and even dangerous, and girls are more likely drop out. Menstruating girls are particularly vulnerable. Unless adequate and private sanitation facilities are available in schools, girls will not attend for days at a time, causing a break in their studies and making it harder to keep up with their peers.

The most effective way to ensure that latrines, hand washing facilities and water points meet the needs of girls in particular, and children in general, is to ask them what these needs are – to fully involve girls and boys in the planning, design and implementation processes. Respecting a child's right to participation will help to ensure that her or his right to education is fulfilled. School sanitation and hygiene education programmes should allocate sufficient time and resources prior to any construction activities to achieve meaningful participation by children.

Programmes should also try to ensure that any hygiene-related discriminatory attitudes and practices in communities are not replicated or reinforced in schools. By allocating sufficient resources for the provision of water points with hand washing stations in schools, girls will not be put in the position of having to haul water at school as well as at home. In situations where hand-washing tanks must be filled by hand, teachers will be encouraged to delegate the task of filling them to both boys and girls. Similarly, the task of cleaning latrines should fall to all users, not just girls.

The School Sanitation Programme has several components such as:

1. Provision of water;
2. Latrine construction;
3. Construction of handwashing facilities;

4. Training of teachers in hygiene and sanitation; and

5. Provision of training materials for training of children.

Nam Saat Central has improved the standards of school latrines. Design criteria are reflected below:

Table 11. Guidelines for Construction of a School Latrine

No. of Pupils	No. of Units	Size of Septic Tank (LxWxD, m)	Size of Soakage pit (LxWxD, m)
0–100	2	3x1x1	1.5x1x1
100–150	3	3x1x1	1.5x1x1
150–300	4	3x1x1.5	1.5x1x1.5
300–400	5	3x1x1.5	1.5x1x1.5
400–600	6	4x1x1.5	2x1x1.5

Note: Design period of a septic tank is 10 years.

Private companies have constructed school latrines. The contributions expected from the Parents' Associations were initially excessive (65%) in comparison with the affordability of the villagers. As a result the construction quality was compromised and sometimes dragged on for a long time in some areas. There is today no cash contribution (or very little) demanded from the parents, – only contributions in the form of labour and local materials.

6.2. Constraints in School Sanitation

In many cases the Programme has been implemented without providing all the school sanitation components such as latrines, water, handwashing facility and training in hygiene and sanitation. In such cases the benefits have been limited. Teachers and students in these schools have access to some aspects of sanitation, but may not be motivated/able to fully utilise this possibility.

While a community-dialogue is now promoted in implementation of WATSAN at village level, it should also be the norm in the School Sanitation Programme. This means involvement of all the stakeholders including the children – as stated in the Programme description under 6.1 above. The JEE has not attempted to assess the degree of participation in this component but we assume it will depend on the local norms and values related to the status of children and their rights to have a say. This may vary between the ethnic groups.

Hygiene education has had a positive impact on the use of the latrines, but changing hygiene behaviour is a slow and difficult process. According to a School Sanitation Survey carried out in 2001[10] based on visits to 36 schools in 6 Provinces, 40% of schools that have built functional latrines and water facilities and even had received hygiene education were not using the school latrines. The lessons learnt at that time were that:

- All programme components were needed to achieve the desired results; this was only the case for 16% of the schools or half of those (33%) which had latrines. UNICEF now stipulates that all components must be implemented as a package;

[10] Primary School Sanitation Programme Assessment 2001, Unicef WES Section LAO PDR and Nam SAAT The National Centre for Environmental Health and Water Supply, August 2001

- The high community contribution required at that time often jeopardised the construction of the latrines. This has now been reduced to mainly cover labour and local materials;
- A large proportion of the contribution was spent on transport of materials and contractors leaving little for the construction itself;
- Villagers did not have the know-how required for construction and had to hire masons;
- Nam Saat staff was unwilling to travel to remote villagers, as the DSA was considered insufficient;
- Only 10% of latrines were excellent or good, while many latrines had construction problems (about 60%, and half of these were not in use). 10% had either not been started or had serious faults, so they were not used. But as it was stated: "seldom is a technical component the key factor determining the use of the latrine".
- The hygiene education had only been loosely tied to the latrine construction programme, and only 50% of the schools had received this input;
- This was clearly insufficient, as 40% of schools receiving latrines; water and hygiene education still did not use the latrines;
- The motivation of schoolteachers and the principals was key for latrine use.

The JEE team visited a school where the School Sanitation Programme had been implemented at the same time as the study cited above – in 2001. The participatory training material provided to the school by UNICEF labelled "Learning with Joy" but commonly called "The Blue Box" is an excellent tool for hygiene education. The children according to the findings of the above study appreciate it, but it is not properly used, as teachers have not been sufficiently trained on how to use it. Hygiene education or promotion is also not included in the curriculum, and therefore the teachers attach little importance to this subject, which undoubtedly is a life-skill with a greater impact on the lives of the children as compared to the standard academic subjects taught at school.

Children with the "Blue Box":

Sometimes the "Blue Box" is well used, but children get tired of the materials after some years. More materials are required, as teachers have not yet understood how to expand the subject for example by moving out of the classroom into the village to link the training with the reality.

The following case study is an extract from a field study carried out by the JEE to Phonthong Village, Phonhong District, Vientiane Province in April 2004. This is an example illustrating the problems stemming from limited hygiene education carried out during 2001.

Case Study: Phonthong Village Primary School with support in 2001

The school was expecting our visit. The primary school was beautifully situated, and the schoolyard was clean. The latrine block was housing some ducks, which took shelter from the hot sun. The team was invited into the school office. The walls were decorated with posters received from different projects and programmes. The JEE team interviewed about five staffs:

The school has 174 children and 16 staffs, or in total 182 people. They had received assistance in 2001 with an Afridev Pump and a block with four latrines and a handwashing basin, which has a crack and it is therefore not used. The tap disappeared.

One of the staffs un-looked the headmaster's office and hurriedly removed a box, which was brought across the yard to one of the classrooms. Shortly afterwards, he came back, now carrying the UNICEF "Blue Box" provided for hygiene and environmental education of the children. He opened the box and showed us the laminated tools. They had no trace of wear and tear and one of the tools was still packed with the original strings around it, indicating that it has not yet been opened. The following explanations were given:

- Hygiene and education training had only covered one day.
- The teachers had never been trained in how to use the "Blue Box".
- They did not consider all the tools relevant for primary school children.
- One teacher said he had used the tools in the box during brakes. He later probably registering the surprised faces of the JEE team, and added that he had used the tools when the children appeared to be too tired to concentrate on the ordinary school subjects.

Posters received from different projects are not seen by the pupils as they are placed in the teacher's office. The water from the pump was reportedly not clean, so the children had to bring drinking water from home. The water is used for watering the earth floors and to clean the latrines. The nearby village also uses it. The JEE team then went to look at the facilities. The latrines had just been cleaned. There was water around them and a man was cleaning the concrete floor outside. There was no water for flushing the toilets or to wash hands – unless using the pump, which functioned well, but the soak-away was partly overgrown.

Conclusions

- The community contribution the villagers are to pay for the school latrines has been changed as it was originally too high;
- All components of the School Sanitation Programme implemented by UNICEF comprising water, sanitation and hygiene education have not always been provided as a package. This has compromised the use of the facilities provided. UNICEF is aware of the problem and is now more prudent of implementing these components as a package.

6.3. Improvements in School Sanitation

6.3.1 Changes in the School Sanitation Programme

The JEE team has recently received feed-back from UNICEF on this chapter, and new information has emerged as UNICEF has introduced some very important Programme changes summarised below:

i) The Programme is nowadays always implemented as a complete package with provision of a water facility, school latrines, hand-washing facility and training in hygiene education.

ii) UNICEF has initiated training of primary school teachers as an integrated subject in the Teacher Training Colleges. This has been done together with Ministry of Education (MOE) to ensure that all new teachers are trained;

iii) In order to reach teachers who have not been trained according to this newly introduced Teacher Training, UNICEF has in collaboration with Ministry of Education (MOE) introduced Hygiene Education as a standard subject into the refresher training organised annually for Primary School Teachers. In this way, also the schools, which have not received assistance from Nam Saat, will at least get hygiene education for their teachers.

iv) The construction guidelines have been changed and there are now fewer people per latrine cubicle than before, so the children will not have to queue.

v) The construction design has been changed to ensure better privacy by having separate entrances for boys and girls.

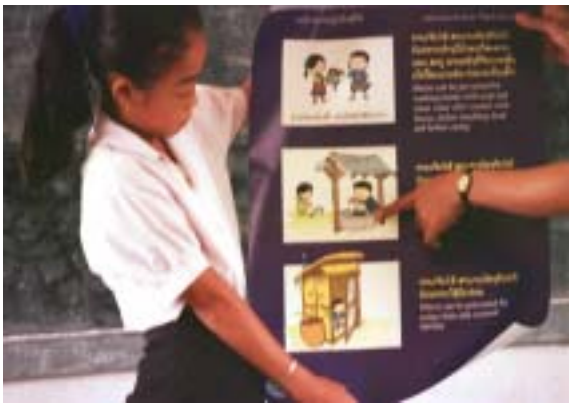
vi) The village contribution has been drastically reduced to mainly involve provision of local materials.

vii) De-worming of School Children has been initiated as a complementary new component and this is now tried out as pilot programme in two Provinces. The de-worming procedure is a convincing aspect for promotion of personal hygiene and sanitation as the children are also allowed to see the worms they have got rid of in a microscope. "Seeing is believing".

Recommendations on The School Sanitation Programme

- Principals, the Parent Associations and teachers should be trained together. Then, they can discuss the implementation of the Programme. This approach has enhanced the effectiveness in other countries;
- Each school should prepare a School Sanitation Action Plan: If there is no practical application of the training, the children will not take the training seriously;
- MOE jointly with Nam Saat should follow-up and see if re-training is needed in the schools that have participated in the Programme, but not got the training or maybe they are missing another component of the package;

- Co-ordination with Village Volunteers is required to discuss practical application in the village;
- The training materials provided for the children should be actively used. The "Blue Box" cost US$ 200. It is much appreciated by the children and teachers should be promoted to use it for training the children.
- The training materials in the "Blue Box" need to be up-dated;
- Action-oriented activities should be promoted. Perhaps a "Health Walk" in the Village followed by "Mapping" of the situation and preparation of or linkage to an already prepared Village Sanitation Action Plan could be prepared by adults and children together;
- Hand-washing facilities need to be provided in one form or another, otherwise the hygiene education training of the children will lose its credibility, and the potential of the good health effects of the de-worming exercise may be jeopardised.



7. Training and Human Resources Development (HRD)

7.1. The Need for Capacity Building

The ambitious objectives and outputs of this programme necessitate a high level and very broad capacity among Nam Saat staff. The assumption was that the technical assistance (TA) would enable Nam Saat staff to plan, manage and guide the sector in all its aspects. This implies that the TA staff to a large extent would train the Nam Saat staff both on-the-job and through workshops and in-service training courses. Much progress has been made, and Nam Saat is now increasingly capable to:

i) Develop, test and monitor and further develop approaches, methods and tools required for putting the new Strategies, Guidelines etc. into practice such as:

- The Village WATSAN Book;
- Models for Village Action Plans;
- Subsidy models;
- How to mainstream gender;
- How to promote changes in hygiene behaviour.

Although the latter to aspects need a lot more practice than Nam Saat has had so far.

ii) Train Provincial staff and facilitate training of District Nam Saat staff to use, monitor and evaluate the newly developed methods and tools and to train the volunteers working at community level comprising of local Lao Women Union (LWU) and Lao Youth Union (LYU) representatives;

iii) Change their role from implementers to facilitators, advisors and coordinators and promoters of lessons learnt.

This transition required an HRD plan. Ideally, the HRD Plan should have been an initial programme activity and then up-dated on an annual basis. The HRD Plan, which was supposed to facilitate this organisational change, was not prepared until the end of 2002 leaving only one year and a half for implementation before the end of the consolidation phase by June 2004. Implementation of the recommendations contained in the plan will require considerable time and resources. The new mandate for Nam Saat has not yet been officially endorsed but just recently approved in June 2004. Despite the late review of the HRD needs, Nam Saat has managed surprisingly well with the transition. But it has naturally taken a much longer time than envisaged according the project design. Had the HRD Plan been the starting point followed by training it would probably had been much easer for Nam Saat to reach where there are now. There is still a need for extensive training.

7.2. The HRD Plan

An HRD Consultant was recruited in 2002. Based on reports available, a questionnaire survey and consultative workshops he prepared a Human Resources Development (HRD) Plan[12]. The overall goal of the plan is to raise skills, knowledge and understanding of the environmental health and rural water supply sector of all Nam Saat staff so they are able to contribute cost-effectively to realising Nam Saat's goals in the short and long-term. The Plan was based on the changing role of Nam Saat, now focussing on promotion of community management and supervision of the private sector. This implies capacity in surveillance, dialogue, training, monitoring, inspection, analysis and evaluation. The consultant made a good analysis and recommended:

- Capacity-building and organisational development to support the decentralisation aiming at Nam Saat to take on a more national co-ordinating and advisory role;
- Institutional reorganisation to establish a team at Nam Saat Central with responsibilities related to software and social aspects including IEC and M&E;
- Development of job descriptions for all staff;
- Providing Provincial Nam Saat staffs with all the necessary documentation and resources that will allow them to develop their knowledge, skills and attitudes.

The Plan is very ambitious in scope, time and resources to be available. The question is in fact whether it is financially feasible. It contains a good analysis of the roles and responsibilities of Nam Saat, but there still appears to be a need for development of the vision and mission statements that will guide the staff and help them set priorities. The Staff's view of their roles are interesting to read, but it becomes increasingly clear that Nam Saat is still at a cross-road between being a full-fledged service organisation and a traditional government entity.

There has been a good progress in the development of policies including:

- A Public Administration Reform Programme

[11] Draft Summary of Human Resources Development Plan 2002 including an Explanatory Report and 4 Appendices.
[12] How to Proceed with the Recommendations in the HRD Plan, 2002.

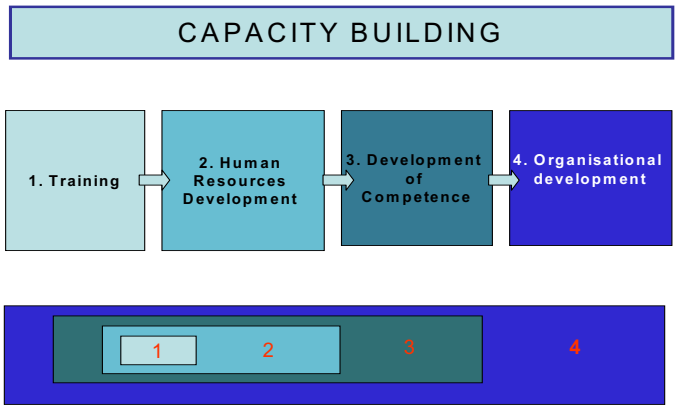
- Lao PDR government HRD policy 1994
- Sector Strategy 1997
- Health Sector Plan 2000–2002
- Nam Saat HRD Plan 2000
- National Sector Strategy of 2004

The linkages between the HRD Plan, activities and methods, and the use of the training, and deployment of staff trained, is well highlighted in the plan, but many questions remain:

- Is recruitment based on job profiles?
- How does Nam Saat keep abreast of sector developments? (By reading books, periodicals, and reports or by surfing on the Internet or by fellowships or some type of training?)
- How does Nam Saat recognise and reward individual initiatives to learn and develop the organisation?
- How is performance rewarded – by access to training, promotion or by recognition in staff meetings?

The conceptual framework in which training is but one component is not clear in the plan but illustrated below:

Figure. 3. Components of Capacity Building



The HRD plan mentions all the traditional steps in setting up an HRD function, but the linkage to Nam Saat performance monitoring is not yet established.

7.3. Training

7.3.1 Learning Topics compared to Learning Needs

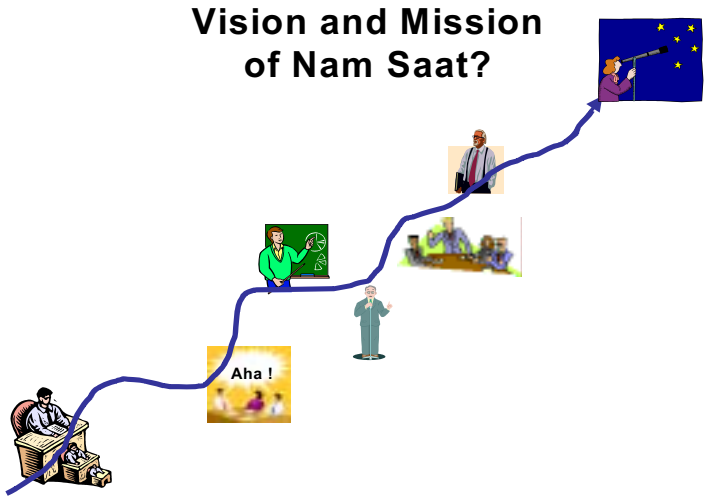
The HRD plan highlights the fact that "*almost all overseas university courses in applied science and engineering tend to stress advanced mathematics, science and technology and are conceptually narrower in one sense and wider in another, than the goals of Nam Saat.*" The available overseas training courses did not meet the needs of Nam Saat staffs needing broad training as compared to deep and specialised technical training. Maybe informal training courses and seminars are more suitable. There are also several international and regional shorter courses, which would be very appropriate in supporting the move to community-based management.

7.3.2 Learning Constraints

The language barrier has been recognised as the greatest hinder for the development of capacity in Nam Saat. The HRD plan suggests purchase of books in English and Thai, but it is questionable whether this is the right approach. Even in English speaking countries reading of technical books is a problem unless people do it during working hours perhaps partly stretching into leisure time. The proposed methodology in the HRD suggesting training in reading and writing appears to be a long route – if not a detour to increasing awareness.

7.3.3 Service Providers' Need to Focus on the Clients

The JEE propose that Nam Saat staff concentrate more on their clients. The issue is how to best prepare the staffs as change agents rather than promoting them to read books and write reports. Again, this actualises the questions pertaining to the vision and the mission of Nam Saat based in their formal mandate and authority.



Although not explicitly spelt out, the corporate culture promoting Nam Saat as a "Learning Organisation" is mentioned. This is an aspect warranting emphasis. To what extent does the Nam Saat staff follow the sector developments and lessons learnt? There is still a belief that water has a higher impact on health than hygiene promotion and sanitation. This is a misconception that appears to have decreased the interest in hygiene promotion. The HRD consultant wrote in his report that:

"Research is needed to show which of the various strategies is the most cost-effective in achieving better health. It is clear that advisors' and donors differ among themselves and from senior Lao staff who in turn differ. Research is underrated in governments in general. The scientific method is underrated. Goal, objectives and methods tend to become rigidified without challenging assumptions, without examining ones' own role in the wider system. Do we really understand the causal network for diarrhoea in various circumstances?[13]"

7.3.4 Training Capacity

Nam Saat in collaboration with UNICEF and the World Bank Water & Sanitation Program (WSP) office have:

- Organised and a carried out a large number of seminars and training workshops on subjects directly related to the water and sanitation programme;

[13] Nam Saat, Draft Human Resources Development Plan 2002 (including an Explanatory Report with 4 appendices) Page 28 paragraph 5 last line.

- Prepared and issued a large number of publications, training manuals, learning notes, presentations, progress and workshop reports; and
- Conducted several studies on gender promotion, on appropriate technology options such as the "*Peoples Pump*", on community contribution, etc.

Nam Saat staff's key strength is construction of water and sanitation facilities, but many training courses have been arranged to increase institutional capacity. Over the recent years a number of courses and on-the-job training have been arranged and about ten manuals have been prepared. Table 12 and 14 below displays the great variety of training carried out by Nam Saat:

Table 12. Strategic Training Courses carried out by Administration Division

Topic	Format	Person Days Participated	Type or Name of Participants	Month and Year
Administration Division				
Discuss and review project	Workshop	114	Prov. Central, others	Oct-02
Review Work in 2002 and Plan for 2003	Workshop	200	Prov. Central, others	May-03
Plan work for 2002–2003	Workshop	80	Prov. Dist. Cent, other	Jan-03
Aid policy	Workshop	90		Oct-02
Recruiting Minority women	Workshops	50	Prov. Dist. Central	Jul-03
Minority Women seconded		12	Distr.	
Staff training (unspecified)		232	Prov. Dist. Central	Aug-03
Staff training (unspecified)		221	Prov. Dist. Central	Sep-03
Gender Mainstreaming		N/A		
Strategic planning	Workshop	24	Central	Sep-03
Researching strategy	Workshop	30	Central	Aug-03
Accounting, Finance, Procurement and Logistics	Short course	210	Prov. Central, others	May-03
Community Dialogue	Workshop	152	Prov. Dist—6 Prov. +Centr.	Jul-03
Community Dialogue	Short courses	98	Prov. Dist, Central	Jun-03
Staff training (unspecified)		98		
Staff training (unspecified)		98		
Administration	Short course	90	Prov. 6 target Prov.+ Centr.	Apr-03
HRD Planning	Workshop	45	Central	Oct-02
HRD Planning	Short course	252	Prov. Dist, Cent,	Dec-02

Table 13. Training carried out by Environmental Health Division

Topic	Person Days	Participants	Time	Location	Total No. of People	Days	Provincial Staff No	District Staff No	Central Staff No	Others' Staff
Research on Regulations	6	Central		NSC	6	1			6	
Latrine use and promotion of EH sponsored by BTC	328	Prov. & Central	Jan-03	Vang Vieng	82	4	48	14	18	
Health Education Impact Sponsored by BTC	76	Central Prov. and Central		Bolikhamxay	19	4	14		5	
	100	Southern Prov. and Central		Champassak	25	4	20		5	
	96	North Prov. and Central		Luang Phabang	24	4	20		4	
	35	Cent and Other		NSC	35	1			21	14
	307			**Total**	103					
Three cleanliness's	72		Dec-03	Salawan	18	4	2	14	2	
Household chlorination Sponsored by WHO	90	Provincial	Feb-03	Luang Phabang	18	5	6			7
	102	Provincial	Feb-03	Sawannakhet	17	6	8			6
	80	Prov. & Dist	Apr-03	Huaphan	16	5	4	2		5
	84	Pro. & Dist	May-03	Vientiane	21	4	2	10		4
	356	Prov. & Dist		**Total**	72	20				
Water quality Sponsored by WHO	45	Prov. & Dist	Sep-02	Huaphan	9	5	3	2		4
	85	Pro. & Dist	Sep-02	Sayabouli	17	5	3	2		12
	100	Prov. & Dist	Sep-03	Salawan	20	5	5	2		12
	125	Prov. & Dist	Dec-02	Borkaew,	25	5	6	2		16
	70	Prov. & Dist	May-03	Khammuan,	14	5	6	3		6
	100	Provincial	Sep-03	Sekong	20	5				
	525	Prov. & Dist		**Total**	105	30				
Waste water management Sponsored by WHO	150	Provincial	Apr-03	Bolikhamxay	30	5	20		5	4
	100	Provincial	Mar-03	Vientiane	25	4	17		4	4
	80	Provincial	Feb-03	Luang Phabang	20	4	12		4	3
	330	Provincial		**Total**	75	11				
Environmental health impact	20	Central	Oct-03	NSC	20	1				
	135	Provincial	Oct-03	Sawannakhet,	27	5	5		5	16
	130	Prov. & Dist	Oct-03	Bolikhamxay	26	5	13	4	5	4
	285			**Total**	73	11				

However, as indicated some of the training courses shown in table 13 have been sponsored by BTC like latrine use and health education, and WHO has sponsored water quality, wastewater and chlorination.

Table 14. Training carried out by the Water Supply Division 2002–2003

Topic	Format	Person Days Participated	Type or Name of Participants	Month and Year
Water supply	Workshop	324	Provincial and NSC	Jan-03
Surface Water Unit				
GFS Techniques	Short course	160	Provincial and District	Jul-03
Spring Protection Techniques	Short course	24	Province	Oct-02
Groundwater Unit				
Use and Management of Hand pumps	Short course	95	Provincial and District	Aug-03
Use and Management of Hand pumps	Short course	70	Provincial and District	Aug-03
Dug well construction	Short course	84	Provincial and District	Oct-03
Rainwater jar construction	Short course	70	Provincial and District	Jul-03

There is a need for both process as well as impact evaluations of all these training efforts. Nam Saat has carried out large number of the many training and knowledge disseminating tasks it has been charged with. The WSP Periodic Progress Report and Documentation/Resource Centre List of Publications as well as UNICEF's Donor Reports give account of the amount of work.

The HRD Plan identified the need for more capacity building in:

1. Financial management
2. Materials and equipment management
3. Personnel recruitment, management and capacity building
4. Socio-economic survey and analysis
5. Integrated software/hardware approach for implementation of the 7-Steps Approach at village level

The 7-Step Approach has now been well internalised at central level and gradually now also well embraced by the provincial staffs. There has not yet been sufficient training for the district staff to implement WATSAN in line with the new Strategy that has just been finalised. This is a priority requirement in order to put the new Strategy into practice.

Conclusion
The volume of activities is impressive given the size of Nam Saat, notwithstanding the fact that the Chief Technical Advisor (CTA) and other consultants, as well as by both the WSP and UNICEF have generously contributed.

International Training for Nam Saat Staff
Exposure to international experiences and lessons learnt is necessary if Nam Saat will be able to promote new developments within the sector. It is noteworthy, that most international training has been related to hardware aspects benefiting four people in the Water Department. Four people have also

attended training in English. These participants were also from the Water Department. One person from Administration Department attended training in Project Auditing. Nobody working on the typical software aspects, such as training of trainers, hygiene education, gender or monitoring and evaluation participated in international training according to table 15 below prepared by the Programme, but the JEE has learnt that one person was once trained in the Netherlands on Gender aspects so this must have been earlier.

Table 15. Attendance by Nam Saat Staff in International Training Courses 2002–2003

Topic	Format	Days	Type/ Name of Participants	Month and Year	Division /Unit	Location People	No. of location	Days per
Rainwater Harvesting, Storage and Water Tank Construction. Course in China in English language with Certificate.	Course	90	Central 2, Bolikham 1	Sept–Oct-03	Surface Water	Lunzu Institute, China	3	30
Groundwater development and Hard Rock Drilling	Course	20	Mr. Phouwang	Sep-03	Surface Water	Chalmers University Sweden	1	20
Project Auditing (Vietnam)	Course	40	Dr. Thongma	March–April-03	Admin-istration	Hanoi	1	40
English	Course	240	NSC	Mar-02	Ground-water	Quest College, Vientiane	4	60

Training of Trainers (TOT)

TOT is the most important training determining the success of failure of the Programme. The JEE has not been able to get any qualitative description of the content or duration of these training activities, so it is not possible to say anything of the approaches, methods, materials etc. used. It would have been useful if the specification "course" in the table below had been replaced by number of days.

Table 16. Training By Nam Saat, Unicef, MOE, LWU, and LYU in Phase III

Topic	Format	Person Days Participated Or benefiting	Type or Name of Participants	Division/Unit
(The learning environment of children in 186 primary schools has been improved through the Project)		About 37,800 school children	Primary school children	NEW/UNICEF/MOE
Learning with Joy for primary school teachers and pre-service teachers	Course	About 900 teachers	Primary school teachers	NEW/UNICEF/MOE
Hygiene promotion techniques	Course	272 hygiene promoters	Hygiene promoters, Pr. school teachers, LYU-trainers	NEW/UNICEF/ MOE/LWU/LYU
WATSA Village Committees' training Village Development Planning	Course	160 village committees	WATSAN Committee members	NEW/UNICEF/ LWU/LYU
District Health Promotion Teams Health Promotion	Course	280 members	Team members & young pioneers	NEW/UNICEF/ MOE/LWU/LYU
Personal Hygiene and Health Education	Course	770 primary school teachers	Primary school teachers	NEW/UNICEF/ MOE/LWU/LYU

Nam Saat staffs – both from central as well as from provincial level – have participated in international and regional events such as:

1. The World Bank Water Week in Washington DC, USA;
2. The Second IHF International Conference in Delhi, India;
3. The WEDC Water Conference in Calcutta, India;
4. The ADB Conference of Sustainable Water Supply in Thirds World Countries in Delhi, India;
5. The Third Water Forum in Kyoto Japan, Symposium on Arsenic in Mongolia and Nepal; and
6. The United Nations Conference of Sustainability, WSP-EAP Retreats in Thailand etc.

The tables showing the total training carried out for and by the Nam Saat Staffs in collaboration with its partners are shown in appendix 10. It would also be very interesting to know how many people are in fact reached by the training carried out by these trainers. This would determine the actual coverage by the project.

Conclusions

1. Nam Saat efforts in the area of Human Resources Development, Capacity Building and Training are impressing – especially in view of the limited staff availably for these activities;
2. It is therefore not correct to say that Nam Saat is only providing policy guidance, co-ordination and monitoring and evaluation when it is an organisation in charge of training of trainers;
3. Training is an important aspect of the Programme that has to remain with Nam Saat;
4. In order to continue to fill this role and to spearhead development in the sector, Nam Saat will need external support to enable its staff to "fill their pots" in terms of new knowledge to deliver to the Provinces and below;
5. External international training has primarily benefited the Water Department, but
6. The staffs have also participated in many external meetings and symposiums;

Recommendations

1. Nam Saat need to solicit continued support for capacity building;
2. Capacity building can also be achieved through downloading reports and lessons learn from similar programmes – available on the Internet;
3. Nam Saat needs to develop a personnel policy for recruitment, training and promotion that is linked to job performance;
4. Training of Nam Saat Staff need to be linked to priority needs at field level, and there should be a Training Needs Assessment carried out covering samples of district, province and central staff in the context of their needs as Trainers of Trainers (TOTs);
5. Staff working on software subject need to get their fair share of training opportunities;
6. There is a great need for improving M&E of training activities;
7. The impact of training activities need to be evaluated to determine what works best and what training has the greatest benefits compared to the costs.

8. Hygiene Behaviour Change

8.1. History and Development 1995–2004

To understand the successes and weaknesses of hygiene promotion in the past decade, it is necessary to mention that the personnel in charge of WATSAN promotion in the Lao PDR has mainly comprised of the Central and Provincial Nam Saat staff who have a curative medical background as compared to a background in disease prevention or ideally health promotion. They have not had access to further training or participation in international conferences in subjects like health promotion, pedagogy or social marketing.

The staff were not aware of the international lessons learnt in the WATSAN sector like the different impacts stemming from access to water, sanitation and hygiene education (if provided separately or in combination). They, as well as the water engineers (both Lao and international) were all convinced about the priority importance of water and latrine construction as compared to promotion of hygiene behaviour. Therefore, the staffs have been thinking more about the construction of water facilities and to a lesser extent about latrines and least about hygiene promotion.

Because of these reasons, water and sanitation facilities (latrines) have been taking the lion's share of the resources allocated for WATSAN promotion. The staffs dealing with hygiene promotion have primarily relied on *learning-by-doing*, and gradually gained experience. They are now capable in the field of management of hygiene promotion at national level. But they are also too few to have a sufficient impact on the Programme, and there is no general access to tools such as Participatory Rapid Appraisal (PRA) tools for hygiene promotion.

The major donor agencies supporting hygiene promotion were Sida, UNICEF and WHO – the latter in the form of short-term technical assistance on water quality control and solid waste and waste water management. Starting from 1998 a variety of materials were produced on hygiene and sanitation with NGO support especially from Adventist Development Relief Agency (ADRA) and AUSAID. But due to the scarcity of funds and international technical assistance assigned to work on hygiene promotion there were still few promotion materials available, and few new ideas and international experiences that could be used as examples in design of approaches, methods and tools for hygiene promotion. As a result, local promotion of behaviour change in the villages got a rather slow start as compared to in other countries receiving more international support in this field.

In the past five years the technical and financial management of hygiene promotion has been delivered through a top-down approach – telling people what to do –, but the implementation at village level has now gradually encouraged promotion of participatory and more demand-responsive methods. Although capacity building at central and provincial level has empowered the staff to work in a more participatory fashion, this approach was often seen as an obstacle in implementation as it delayed implementation. A participatory approach takes a longer time, but it also increases ownership and long-term sustainability. Hygiene promotion takes longer than construction of water supplies. The lack of awareness and resulting hardware orientation and the limited human resources development in this field were probably the main reasons that hygiene promotion could bring very few convincing results in the form of behaviour change. A wider variety of activities on hygiene i.e. a demand-responsive approach, participatory tools, training, workshops on hygiene, social mobilisation, of mass media and follow-up support, were required.

Nevertheless, pilot projects on promotion of food hygiene, management of solid waste and wastewater management were initiated, and a series of more user-friendly materials i.e. posters, manuals, guidelines could be produced. In addition to the above, WHO supported pilot projects on urban hygiene promotion and household chlorination in various provinces (in Bolikhamxay Province and Vientiane Municipality).

Major Milestones of Development

Below is a description of the main milestones in the promotion of hygiene and sanitation in Laos.

Table 17. Milestones in Promotion in Hygiene and Sanitation in Laos

1995–	College of Public Health started teaching hygiene. During the past 12 years, there have been about 200 students who have graduated.
1996–1997	National Workshop on Water Supply and Sanitation – The meeting agreed to start hygiene promotion in ten provinces supported by UNICEF and Sida.
1997–	National Strategy to promote the Rural Water Supply and Sanitation Sector
1998–	The first Trainers of Trainers (TOT) trained for national hygiene promotion
1999–	Water Quality Control activities initiated
2000–	Development of primary school hygiene promotion materials (the "Blue Box") comprising posters, games and other participatory tools on hygiene, latrine use, handwashing, environmental sanitation etc.
2001–	Development of the first manual in Lao on "Basic knowledge on Hygiene Promotion". This manual contains lessons that were adapted and tailored for all forthcoming training events.
2001–2004	Training on hygiene (prevention of faecal-oral transmission) for the provincial, district and village level Nam Saat staff, WATSAN Committees and training on operation and maintenance combined with Hygiene Promotion.
2001–2003	Training on hygiene promotion for teachers and students in primary schools (mainly for the central level staff), Lao Women's Union and Youth Union through the UNICEF School Sanitation Programme.
2002–2004	Training and materials developed to promote food hygiene and prevention of faecal – oral transmission.
2004	A revised National Strategy incorporating Hygiene Education.
2004	Developing of Guidelines for the 7-Step Approach promoting the Strategy.
2004	Development of the Village WATSAN Book integrating Hygiene Education into the implementation sequence for a WATSAN scheme.

8.2. Main Strategies in Promotion of HESAN

Hygiene and Sanitation Strategies in Phase I

During the first phase of the Programme the Sector Strategy contained no specific implementation strategies or approaches outlined to promote hygiene. Nevertheless, there were considerable accomplishments made to promote hygiene such as:

1. Integration with water supply and latrine construction activities
2. Inter-agency co-operation
3. Primary School Programme hygiene promotion
4. Hygiene promotion in the School of Nursing, MOH
5. Support to water quality control

Hygiene and Sanitation Strategies in Phase II and III

During Phase II and III (1998–2004) it was more and more emphasised that there should be a demand-driven and participatory approach to HESAN. The Division of Environmental Health that is in charge of co-ordination of hygiene accomplished the following activities:

Sequence of activities

A modified approach comprising 12 steps in Implementation was promoted, but as mentioned above in Chapter 3, people did not feel at ease with more than the first 6 steps, and it became soon evident that it was necessary to simplify the procedure if it was at all going to be used.

Training

Due to the before-mentioned limited funds and technical assistance on hygiene promotion there were insufficient training materials and lessons learnt were not accessible. The promotion has therefore been rather didactic (telling people what to do or what not to do), and as everywhere else where this approach is used it could bring limited results in behaviour change in the villages.

Training of Trainers (TOTs) for Hygiene Education was carried out in three regions during the year 1999–2000 according to the CTA's Annual Report. As shown in 7 in table 15, about 900 teachers, 272 hygiene promoters, 160 village committees and 280 District Health Promotion Teams were trained during Phase III. This amounts to about around 1612 trainers in different capacities. It is difficult to assess their impact but the number is impressing. Since the trainees for these courses were Provincial Nam Saat staff, the training gave opportunity for them to review, upgrade and update their knowledge on hygiene and sanitation issues, and to get familiar with the essential communication skills required for hygiene promotion. Due to lack of resources and facilitation for refresher-courses the information gained from the initial course could not be reviewed and reinforced, and as years passed by and staff-changes took place, nowadays there is a great and urgent need for organising refresher-courses on promotion of behaviour changes in hygiene and sanitation.

Hygiene promotion through Lao Women's Union

Implementation started in 2002 covering 8 provinces, 30 districts and 187 villages. In every village there are Village Health Volunteers (VHV). They receive many different types of training, as it is very common to use volunteers. The VHVs get the following types of training to carry out their duties:

1. *Small animal livestock* training for targeted families: For families with children aged 1 day to 8 years. The duration of the training is three to five days. The trainers are from the provincial and central levels;
2. *Training on rice cultivation:* Four Village Volunteers are selected. The training is for five days. The trainers are from central, provincial: and district levels;
3. *Training in childcare:* In each village two VHVs are selected. They receive a three-days training course. Trainers are from central, provincial and district levels;
4. *Training on latrine and water source use and maintenance:* Two Village Health Volunteers (VHVs) are selected per village (one female and one male). They get three days training. Provincial and district hygiene promotion teams (Nam Saat staff) go to the villages and carry out training of the VHVs in the villages. UNICEF usually funds the training and UNICEF/Nam Saat provides some additional budget for construction depending on which Province they are in. The communities contribute labour and materials. After the training, the VHVs starts working but they do not have any transport so they depend on the project. There is a plan to provide them with a bicycle. Based on their roles and assignments given by the Provincial and District Nam Saat, the VHVs are responsible for a few activities in their village. After the training, some community activities are carried out with the leadership of the VHVs, and the district and provincial officers monitor the implementation.

The VHVs reports to the district and provincial levels. Nam Saat also receives comments on the implementation from UNICEF, MOE, MOH and the Central LWU. Project co-ordination goes on well in practice, because funds are available and sufficient. VHVs work hard, but their capacity to carry out the assignment is rather limited.

Recommendations

1. As mentioned in Chapter 7 Nam Saat staffs in charge of hygiene promotion need exposure to lessons learnt in other countries through participation in international workshops on this topic;
2. Appointment of WATSAN committees should be closely monitored;
3. The Village Chief should be promoted to ensure proper village management of the scheme;
4. More training is needed. One–three days is not enough. There are many aspects of WATSAN management that require attention and proper training;
5. There is also a need for more external and local technical assistance for hygiene promotion especially for the provincial and district levels;
6. The VHVs need to be provided with a PRA Tool Kit for hygiene promotion
7. While local masons and contractors are hired and paid to do the construction work, the mobilisation and training of community members is carried out by the Village Health Volunteers who also have many other duties in addition to providing for their own families. The same volunteers may not be altruistic enough to continue working for a long time without receiving any salary or other job incentives. This need to be discussed at village level, and either retraining of new VHV should be planned after some time, or some incentives introduced;

8.3. Impact of Hygiene Promotion

Below are some observations according to a recent KAP survey on (HESAN):

1. Provision of Sanitary Facilities and Hygiene Promotion

In the past decade, national hygiene and sanitation promotion was not regularly implemented along with the water supply and latrine construction activities. In most cases, constructions preceded training on hygiene. This is still the case. In fact, some people believe that water must precede sanitation while the programme usually request construction of latrines before provision of water. The point is that hygiene and sanitation needs to be strengthened throughout the implementation cycle and far beyond.

2. Training on HESAN

Hygiene and sanitation education takes a long time and people need frequent promotional activities to consider changing their behaviour.

3. Monitoring of Impact

There has been no regular monitoring of the impact from hygiene education. Nam Saat Central collects no information on operation and maintenance of water supplies and latrines. Latrine use is varying both within as well as between the provinces, and the causes of the variation have not been much investigated. The areas with limited latrine use are usually the remote areas inhabited by ethnic people who are not aware of the advantages associated with hygiene and sanitation. About 40% of the people interviewed in a KAP Study in 2001[14] were not aware that diseases such as diarrhoea, cholera and intestinal infection, are directly related to sanitary behaviour and use of clean water. It is therefore

[14] Nam Saat Work Plan 2002–2003 National Water Supply and Environmental Programme (Nam SAAT), and Sherestha, Bijay, Analytical Report II, Khammouane National Water Supply and Environmental Health Programme (Nam Saat) March 2003

not surprising that in some surveys 40% of people who have even constructed a family latrine are not keen on using it.

The relationships between sanitation and prevalence of diseases could be monitored, but Central Nam Saat has not yet established a close working relationship with the Centre for Epidemiology and Disease Surveillance. However, there have been a few baseline studies on hygiene and sanitation that were carried out recently with BTC, SCF (Australia) and UNICEF support. The survey findings of the KAP survey supported by UNICEF are used as a baseline for information on KAP when other agencies replicate the survey.

The studies show prevailing health problems stemming from water and sanitation. Infestation by intestinal worms among children in some schools is reaching levels of 60-80%. Malaria is endemic, and Dengue fever is on a rapid increase especially in urban and peri-urban areas. The Bird Flue (Avian Influenza) is a more recent risk related to environmental hygiene that requires a proactive rather than reactive approach. As in most developing countries about 70-75% of all diseases are in one way or another WATSAN related. A WATSAN Programme represents a great opportunity to improve the living conditions. Monitoring of impact can provide a tool that can be used to motivate the staff in their hard work, as they would be able to see the results more clearly.

9. Information, Education and Communication (IEC)

9.1. IEC Consultancies

All the three IEC consultancies have been implemented during the last year from April–May 2003, August–September 2003 and finally in February–March 2004.

The first consultancy stressed the importance of:

1. Lasting behaviour change that must come from within communities;
2. Hygiene education being most effective if participatory and internalised;
3. Integration of hygiene education interventions in communities with every project-stage;
4. Long-term hygiene reinforcement of behaviour changes associated with the new water and sanitation facilities.

He further envisaged a resource centre at central level and eventually in every province. He also pointed out the Nam Saat still lacked a communication and dissemination strategy. There are particularly three important handbooks and guidelines prepared to guide the staff such as:

5. Handbook for Lao PDR RWSS Sector Strategy, Nam Saat/WSP May 2001;
6. Field Methodology for the Application of Demand-Driven Approach in Lao RWSS Sector Strategy. Nam Saat/WSP August 2002; and
7. The revised National RWSS Sector Strategy issued in Draft for in April 2004.

The consultant made several recommendations during his three inputs to the programme. Below is a table showing the recommendations made and the current status. What is remarkable is that many of the recommendation have been made in several reports during the last year, as Nam Saat had not yet implemented them.

Table 18. Recommendations made by the IEC Consultant and Implementation Status.

Recommendation	Status	Comments
1. Develop RWSS Communication Strategy	Draft prepared	Status unknown
2. Nam Saat to take a more proactive role in sector development and coordination	Very good progress	Ongoing activity
3. Decentralisation of IEC functions	Status unknown	
4. Establishment of an IEC Unit with full-time staffs with operational office	Staffed with one full time officer and with two computers	Some more furniture and LAN to be provided
5. Anti-virus software to be installed	Anti-virus programme installed	
6. Adopt and use UNICEF database for an IEC database	Ongoing	Training in office management carried out by Save the Children Australia
7. Establish a Library of IEC documents	Initiated	WSP library not yet transferred
8. Weekly Co-ordination Meetings with UNICEF and UNDP-WB WSP	Institutionalised	
9. Reports from Provincial level to be fed into the database and reflect information needs at each level	Not yet possible	Only Savannakheth Province submits reports
10. Review resources and time given to the community dialogue	Discussed in recent workshop	Nam Saat staffs spend three–four days in the community dialogues. There need to be more days
11. Continue review resources and time for activities, organisation, timing and effectiveness	Not initiated	This requires urgent attentionhygiene promotion
12. Capacity-building Programme for WATSAN Committees to be developed	Not initiated	In progress
13. Develop standard list of IEC materials and Manuals for distribution to all districts for use in the field regardless of project/programme areas	Not initiated	According to UNICEF there are documents in the central store not yet distributed to the villages
14. The IEC materials should reflect felt needs of the communities	Unknown	Materials are pre-tested but that is another aspect
15. IEC materials for ethnic minorities needed	Not initiated	Non-verbal PRA Tools have proven to be a solution in many other countries where several languages are spoken. These can be used more extensively also in Lao PDR
16. Audio-visual equipments to be standardised and provided to all provincial offices for rotational use by district teams	Not initiated	Might be expensive and complicated in view of the lack of electricity and limited transport
17. Appropriate copies of IEC materials to be produced including distribution plans and plans for tracing and monitoring of effectiveness and use	Not initiated	This is a much-warranted recommendation
18. Translate Job Descriptions into Lao	Unknown	Probably implemented

The IEC consultant compiled a summary of the Nam Saat publication series. That table shows[15] that out of a total number of 22 publications; the status was unknown for 6 documents, existed in draft

[15] Sida Phase III Consolidation Phase for the Rural Water Supply and Environmental Health Programme in Lao PDR, Mission Report, IEC Consultant, February–March 2004. Table 1 page 9.

form for 5 documents, and 11 have been finalised. Out of these 22 publications only 9 existed in the Nam Saat premises. These results show that the IEC unit has a lot of work to do to in order to effectively use its assets. The guidelines tools and manuals, which exist for implementation of the RWSS programme, and are supposed to be available in all Provincial and District Nam Saat offices comprise of[16]:

1. Community Dialogue
2. Drilling Practices
3. Dug Well Construction Manual
4. Election of Water Committees
5. Election/appointment of Caretakers
6. Hygiene Promotion Tool Kit and Manual
7. Informed Choice of Technology; Sanitation
8. Informed Choice of Technology; Water Supply
9. M&E Forms: 1 for water supply construction and 1 for latrine construction for use at district level and 2 for same subject to be used at provincial level.
10. Spring Protection Construction Manual
11. Tara Handpump Installation and Maintenance Manual
12. The Village WATSAN Book
13. Training materials for teachers and for school children
14. Training of WSCs in financial management
15. The Village WATSAN Committee UNCEF has also produced a variety of social marketing tools for children such as:
16. Learning with Joy Tool Box
17. Meena's Three wishes
18. Mena and Worms comprising a cartoon, booklet, games, flipchart, posters and leaflets

9.2. Best Practices in IEC – some recommendations

9.2.1 How to find out what are the best practices?

Nowadays, "Best Practices" have become a global concept in the WATSAN sector. There are several international authorities and organisations publishing research and findings – often on an international basis. Some of these are:

1. IRC (International Water and Sanitation Centre)
2. WHO/PHAST (Participatory Hygiene and Sanitation Transformation- a joint project of WHO and UNDP/World Bank Water and Sanitation Programme operational in more than 40 countries).[17]
3. NETWAS (Network for Water and Sanitation)

[16] Sida Phase III Consolidation Phase for the Rural Water Supply and Environmental Health Programme in Lao PDR, Mission Report, IEC Consultant, August – September 2003.

[17] PHAST Step- by-Step Guide: A Participatory approach for control of diarrhoeal disease. WHO Geneva, 1998. (Copies available from the WSP library in Vientiane.)

4. PROWWESS[18]
5. UNDP/World Bank
6. UNICEF primarily The School Sanitation and Hygiene Education Notes and News which are part of the joint UNICEF/IRC global School Sanitation and Hygiene Education project

9.2.2 International Lessons Learnt

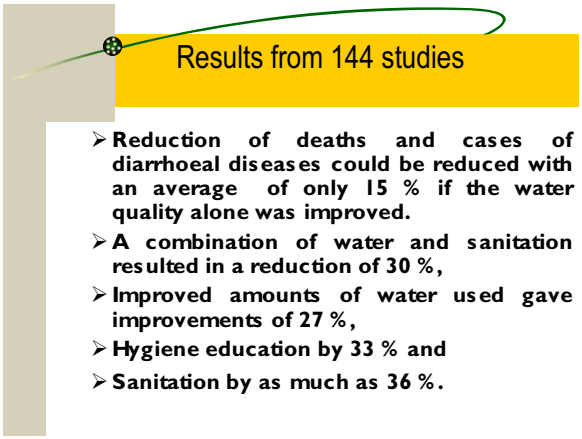
– **What are then the lessons learnt elsewhere that Nam Saat and the Programme could consider for integration into the Strategy and the 7-Steps Approach?**

Based on about 20 years of research on hundreds of projects carried out by WHO in collaboration with the World Bank, provision of water alone has been found to be associated only with around an average improvement of health of 15%. Water and sanitation in combination yield an improvement of 30%. As can be seen from the illustration below sanitation has the best impact accounting on average for a 36% improvement. All the components are needed. However, while water can be provided relatively fast, the WATSAN committees require long-term support and promotion of hygiene behaviour changes may need some 10–20 years according to research. It is important that the staffs are aware of the endurance required, and that "every long journey starts with the first steps" so they do not get disappointed because of the slow progress.

International studies by the Water and Sanitation for Health Project (WASH)[19] indicate an overall 55% average reduction of child deaths with improved sanitation, water quantity and quality. In view of the perspective of the possible health benefits to be derived from sanitation are much greater than for water if provided separately a great emphasis on sanitation is warranted as an integral component of a WATSAN scheme. These are apparently lessons learnt by Nam Saat as well. But how much hygiene promotion, when, and how? There need to be a discussion on this topic. Some guidance could be available from the KAP studies, but these do not seem to have incorporated any variables related to prevalence of diseases. Usually such studies include questions like: *"Has any of your children (under 5 years) been affected by diarrhoea during the last month?*" followed by follow up questions on number of children and episodes. Although children can get diarrhoea in connection with other diseases than those which are WATSAN related, it offers a rough estimate on the degree of impact on health.

Below is an illustration of the importance of Hygiene and Sanitation as compared to Water.

Figure. 4. Importance of Hygiene Education as compared to Water Supply



[18] Promotion of the Role of Women in Water and Environmental Sanitation Services – a part of the UNDP – World Bank Water and Sanitation Program.

[19] Steven A. Esrey et al. Health Benefits from improvements in Water Supply and Sanitation: Survey and Analysis of the Literature on Selected Diseases, WASH Technical Report No. 66 WASH, Arlington VA, July 1990.

– Water before sanitation – not a successful approach

One of the most successful projects in the sector was the Rural Water and Sanitation Project East Uganda (RUWASA) in Uganda, The project focus was on safe water and improved hygiene practices through participatory training approaches using pictorial tools developed by the project. Project achievements in the RUWASA Project were: a latrine-coverage of about 23% in areas where water was implemented before hygiene and sanitation – while in new areas where water and sanitation was integrated it was around 76%. Sustained behaviour changes and decreases in diarrhoeal diseases and eye-infections were recorded in follow up studies subcontracted to a University Department. A Global WB/UNDP Study in 1997 indicated that 96% of water schemes remained in operation after up to 10 year's implementation. This achievement placed RUWASA on the top of successful projects in the water sector.

The time and effort devoted to Hygiene Promotion by Nam Saat is insufficient. Participatory methods are required to cover the core subjects such as:

1. Increased Handwashing and Bathing
2. A clean latrine – with a handwashing facility
3. Safe disposal of children's faeces
4. Safe Water Chain from source to mouth
5. Improved domestic solid waste and sullage disposal

– How long time and what methods should be used?

Even a presumably simple everyday act as handwashing may require to be covered in the training. The most important factor in preventing and controlling communicable disease is careful hand washing. As an illustration to the complexities involved in hygiene behaviour the techniques to be used for effective handwashing are described below:

Effective Handwashing:

1. Use soap and if possible running water.
2. Rub hands vigorously as you wash.
3. Wash all surfaces, including backs of hands, wrists, between fingers and under fingernails.
4. Rinse hands well.
5. Dry your hands with a personal towel or let them dry in the open air.
6. Try to turn off the water with something else instead of using your bare hands, or use your left hand. Public taps are often contaminated.

Simply telling a WATSAN committee or children at a school to wash hands will not do. As all parents are aware of, it is necessary to assist small children in handwashing, and later on to command and supervise the hygiene behaviour. A simple but telling indicator is the cleanliness of latrines along with handwashing facilities with water available. This is often used as an indicator of behaviour change. Social marketing appealing to basic needs such as social recognition (responsible parent) or well-being and attractiveness are usually more powerful incentives than referring to disease control.

Basic Principles in How to Achieve Behaviour Change

The most fundamental principle is to target one risk-behaviour at a time, and establish behavioural targets that can be realistic under the given circumstances. Aiming for too much will only result in disappointments on behalf of everybody concerned. Effectiveness may increase by a scientific step-by-step approach, which means an analysis of:

Choice of Behaviour Targets:

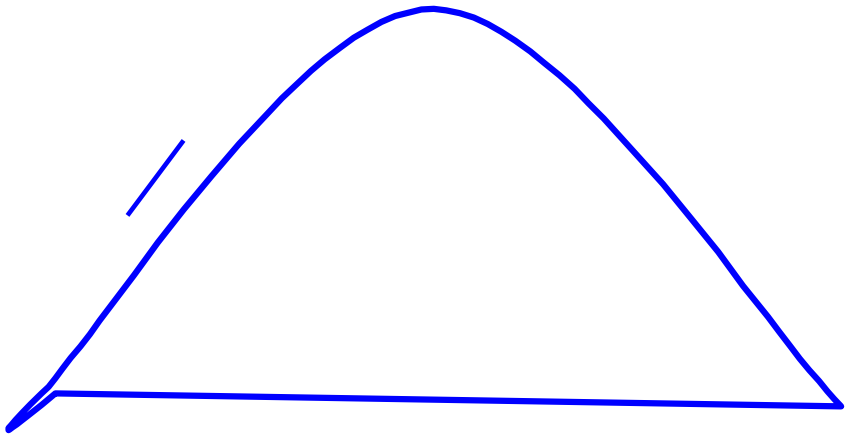
1. Analyse the behaviours in detail:
2. Look at sub-components of the behaviour
3. Assess facilitating or hindering aspects for each sub-component and their impact
4. Assess the degree of positive or negative connotation associated with each sub-component
5. What is the degree of personal involvement?
6. Competing aspects to consider (-the family cost of the water or latrine compared to other financial requirements)
7. Select the behaviour based on the feasibility study above

Focus of behaviour modification:

8. Reward desired behaviour
9. Promote and reward active participation
10. Reward by recognition rather than using monetary and physical rewards.
11. Focus on groups to have a wider impact
12. Disapprove of negative behaviour (like indiscriminate disposal of wastes).
13. Point at expected short- and long-term benefits
14. Aim at influencing existing values and behaviour norms to ensure long-term sustainability.

Behaviour change takes time and involves many steps on behalf of the person who is about to change. Most people are not going through all the steps in one go. Many people may need some additional influence and support in addition to mere awareness to really make a habit of a sporadic change. Some may just think there is no need to bother as they have managed anyway until now, without thinking much of the diseases affecting their children. The sequence is illustrated below.

Figure 5. The many steps which may Gradually lead to Routine Behaviour



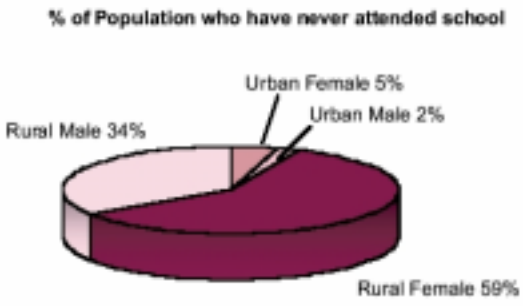
Conclusions

1. Hygiene promotion as a mean for behaviour change always takes a long time.
2. Behaviour change is an end result from a chain of steps, and it takes frequent exposure to information. A few hours or even days of training are not enough.

Non-verbal Materials – the Best for Rural Lao PDR

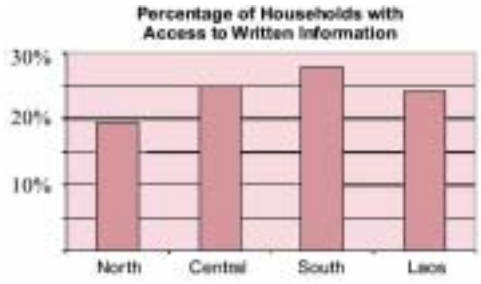
There are many different languages spoken in Laos. In addition, the literacy among men was in 2002 about 49% for men and 33% for women at national level[20]. Among ethnic women this proportion was only 20%. A substantial proportion has never attended school and most of these people are rural women.

Figure 6.



There are consequently also rather few households that have access to written information at home. People who have attended school are not always keeping the practice of reading alive, if there is nothing to read – and nothing to gain from reading it. Below is another figure from the UNDP Human Development Report 2002 illustrating the situation.

Figure 7.



As it is the children of the illiterate rural ethnic women who are the ones mostly affected by diarrhoea and other WATSAN related diseases, they are also the ones most affected by stunting – too low weight compared to age, and even more seriously, wasting – reduced height compared to age. The proportion of children suffering from these conditions on a national level is 41% for stunting and 40% for wasting. It is therefore of a great national concern to reach their mothers with hygiene education.

A great problem in Laos is that government officers may have problems to communicate with people. It is in this context difficult to understand that so much of the IEC materials have written explanatory text. Non-verbal Participatory Tools can be used by the Volunteers at village level. Participatory tools such as Contamination Routes and Contamination Barriers (one of the tools in the PHAST[21] toolbox) could be used in Lao, and these do not require any verbal explanations except to the facilitator on how they are to be used. These have been utilised in some 40 countries all over the world with great success.

[20] UNDP Human Development Report 2002.

[21] PHAST Participatory Hygiene and Sanitation Transformation- a joint project of WHO and UNDP/World Bank Water and Sanitation Programme.

Recommendations on Hygiene and Sanitation:

1. Hygiene Promotion should feature more prominently in the 7-Steps;
2. Promotion is required at all levels;
3. Special promotion is required in terms of designing training for Headmasters and teachers and the Parents Association in order to catch the young while still in a formative age.
4. Participatory Rapid Appraisal (PRA) tools that can be used with people of all ethnicity are recommended, as these have proved to be effective in most other developing countries. The PRA pictures are distributed to the children or adults and discussed in a group. The facilitator should then allow for the participants to figure out by themselves how problems affect them and what could be done as interventions. This will activate and promote ownership.
5. At least one week is required for training the facilitators to use PRA tools effectively, although many specialists would insist on a 2-week approach, including field-application;
6. Handwashing facilities need to be more actively promoted at all levels – perhaps in the form of a campaign – especially in districts affected by out-brakes of diarrhoea;
7. M&E should integrate indicators of hygiene promotion and sanitation;
8. Nam Saat should collaborate with the Epidemiological Reporting System.

The Ministry of Public Health has this year decided to use local media for its Dengue Fever Awareness Campaign. Dengue fever is on a rapid increase in Laos.[22] In 2002, 9,100 people were infected and 22 people died. This figure rose to 17,500 in 2003 when 63 people died of the disease. The Lai National TV is to report on Dengue 38 times each month or a total of 240 times between April to October 2004. This illustrates that they are well aware of the need for repeated and varied messages along the same theme. Vientiane Newspaper will have 13 articles. The article brought out that village campaigns were preferable as they focus directly to the people encouraging them to clean their houses, villages and streets, but radio programmes can complement. Perhaps the Programme could add awareness on dengue fever to its repertoire?

[22] Article featuring the an interview of the Minister of Public Health Ms. Somphone Soulathy in Vientiane Times, 26 April 2004

10. Monitoring and Evaluation

10.1 M&E Aspects Reviewed by the JEE

About 75 reports have been reviewed as the main approach in evaluating the M&E component of the Programme. The JEE has in particular looked at:

1. The objectives of the M&E System;
2. Progress in establishment of the M&E system;
3. Studies and reports prepared under the programme:
   - Reports from Sida's Permanent Advisory Group
   - Field report prepared by advisers
   - Mid-Term Review, March 2001
4. Analytical Reports prepared by TA Advisers;
5. UNICEF's Draft Mid Term Report issued of 4 February 2004;
6. UNICEF's Draft Situation Analysis issued 4 February 2004;
7. WB /WSP Draft Project Completion Reports January 1998–June 2001
8. Externally Commissioned Studies; and
9. Consultancy Reports on M&E

10.2 Objectives of the M&E System

Nam Saat Central is a national co-ordinator, facilitator and policy maker in WATSAN. The co-ordinating role implies knowing what is done where, by whom and with what impact, in other words; Monitoring and Evaluation (M&E) of sector progress. But it is not clearly spelt out what type of M&E services that will be performed by Nam Saat.

10. Who are the primary users of the M&E information?
11. What type of information do they need?
12. What action will the M&E information lead to?
13. When should action be taken?

Nam Saat needs to provide the required information in an effective and timely manner, or people will contact other actors directly. M&E Roles and responsibilities are not yet clearly expressed.

10.3 Progress in Establishment of the M&E System

There have been difficulties in implementation of M&E over the years. PAG minutes reflect that attempts were made in 1999, 2000, 2002 and 2003 to get an M&E system institutionalised. However, a combined IEC and M&E Unit has recently been established at Central Nam Saat with three posts, one of which is for M&E. The Unit has moved into renovated premises in September 2003. The Chief of the WES Section UNICEF has contributed considerable time and effort to the establishment of the UNICEF WATSAN databases into the unit's computer. This base is bilingual (Lao and English). He has also carried out on-the-job training. The M&E Officer has had 17 days training. In addition, he

and some other Nam Saat staff have had five days training on regular office management and filing. They have made a trip to the Province of Boulixhasay to introduce M&E. Terms of reference have been prepared as well as job descriptions. The M&E Consultancy reports have not yet been translated into Lao, but Mr. Seth Eriksson one of the Regional Advisers has prepared over-heads in Lao when the report was presented to Nam Saat. M&E info is now based on the 2002 census.

The main M&E tasks are to:

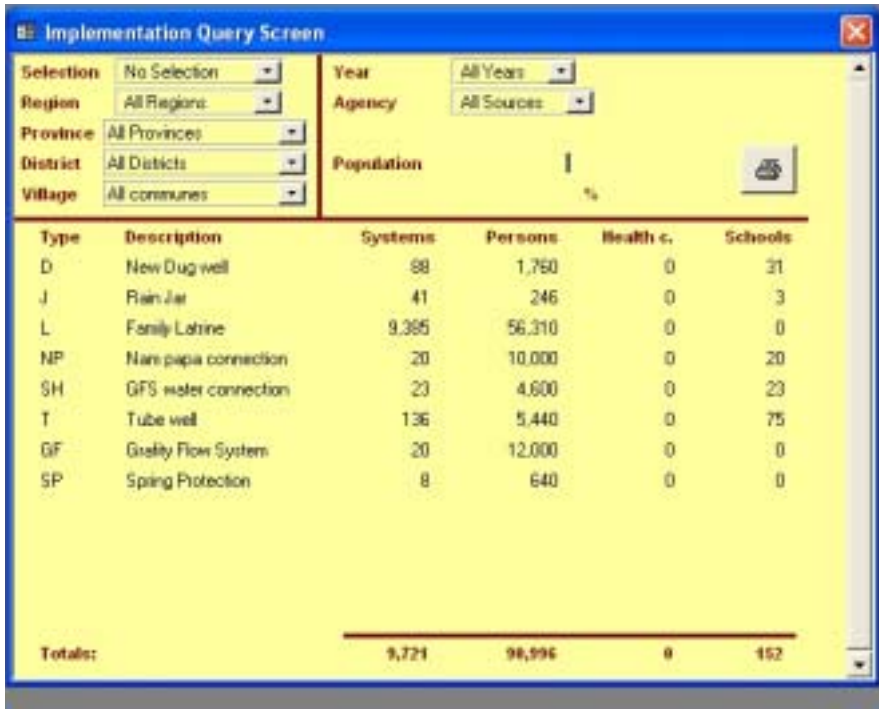
1. Summarise data and report to the Nam Saat Director and to the MOH Health Dept;
2. Prepare monthly, quarterly, biannually, and yearly reports for Nam Saat;
3. Computerise lists of all existing documents. (IEC documents are now also stored in a book-case in the IEC unit which is sharing office with the M&E Unit.)
4. As the Chief of M&E does not speak English is difficult to find further education courses that he could attend. It has been suggested that he might first attend evening courses to learn English, then he could be sent to a regional IRC WATSAN M&E course.

An example of the data bases installed is shown below:

There are several formats developed and available for use such as:

1. Report Forms for Sida Cash Advances
2. Monthly District Progress Report on Sanitation, and
3. Monthly District Progress Report on Water Supply,
4. Monthly Provincial Progress Report on Sanitation, and
5. Monthly Provincial Progress Report on Water Supply

The reports on progress are to be entered into the database seen belowe:



These databases show the very good monitoring information that will be possible to collect once the data is collected and forwarded to Nam Saat.

The recent M&E consultant has in collaboration with project staff prepared an M&E work-plan. This was released only two days prior to the JEE mission (17th April 2004), so it is too early to comment on the implementation.

A good example of a justified M&E system at the most needed level is the before mentioned Village WATSAN book to be given to each WATSAN Committee for recording progress and M&E aspects. It contains the forms to be forwarded to district and onwards to provincial level. This is a very good idea, but it is a project in itself requiring considerable efforts to introduce. The current version has a very strong construction bias. There are no attempts to measure WATSAN facilities, which are not functioning or latrines not used or maintained.

Conclusions on the M&E Office

1. The task to institutionalise an M&E system has been underestimated. Two short-term consultancy inputs plus only one full time national M&E Officer in Nam Saat is not enough to make this system operational;
2. The M&E Officer has no background in social sciences, and he does not speak English, and therefore he cannot participate in regional WATSAN training seminars on M&E;
3. The M&E Strategy and Work Plan has not yet been translated to Lao;
4. The first Phase of the plan had no dates related to accomplishments in the form of benchmarks. The second Phase involving 2 Provinces as pilot areas was supposed to be ready by 30 April 2004, and monitoring forms were due to be circulated by 25 April 2004.
5. Training has been provided by UNICEF to feed information into the data base, but compilation, analysis and reporting has not yet been covered.

Recommendations

1. The issue is now to market the usefulness of monitoring, and start doing it in a small scale;
2. There is a need for a long-term consultant if an M&E system is to be properly institutionalised;
3. Perhaps Nam Saat could initiate collaboration with the University or a Medical College. Apart from enabling more on-the-job training of the M&E officer, students could also get some practice in the design and implementation of an M&E system. This arrangement has worked well in other countries.

- **M&E studies and reports**

The JEE has reviewed a number of different Programme reports made by PAG, the CTA Team and others as well as M&E studies carried out. These reviews are enclosed in appendix 11.

- **Short term consultancy reports in M&E**

The Consultancy Reports in Monitoring and Evaluation (M&E)[23] describe very well the status and difficulties experienced by the project in M&E. Perhaps the problem lies in the way the consultancy objectives were stated:

"To Strengthen the co-ordinating capacity of Nam Saat Central and the reporting in Nam Saat in general through assistance to develop and put in operation a Monitoring and Evaluation system."

While the first report in July 2003 suggests a step-by-step approach in institutionalisation, which everyone will agree with, it indicates that both Nam Saat and higher-level stakeholders will benefit as well as "indirectly" the rural people in Laos.

Neither the first report in 2003, nor the second one in 2004 spelt out the concrete purposes of the M&E system except monitoring of progress in construction.

The questions that still remain in 2004 are:

1. Why the information needs to be collected?
2. What type of information is required?
3. Have indicators been selected to measure it?

[23] National Centre for Environmental Health and Rural Water Supply – Lao PDR M&E, Mission Report on Monitoring and Evaluation, August 2003, and National Centre for Environmental Health and Rural Water Supply – Lao DR M&E Report No 2 Drafts dated 17 April 2004.

4. How is it going to be collected?
5. When is it going to be collected?
6. Who will collect it?
7. How will it be tabulated and compiled?
8. To whom will it be transmitted?
9. How is it going to be used by whom and what type of action will be required based on monitoring the indicators?

These questions must be the starting point in establishment of any M&E system. One can never assume that a database has a value in itself, unless the utilisation by whom, how and when has been determined. After reading the two consultancy reports all these basic questions have yet to be sufficiently answered. The first report correctly points out that:

"It is the discrepancy between the theory and the field experience which seem to be one hindering factor and cause for frustration."

There is no real felt need for collecting and submitting the M&E data from the Provinces to the central Nam Saat. So far only Savannahkhet Province does this.

– So what type of M&E data do people really need and value, at what level and how are they willing to use it?

An M&E system should not be established only to send information from the communities to the centre. Worldwide experiences show that such a system is bound to die out sooner or later. What will the supplier of the data get in return from the receiver?

An M&E system should start off by determining the stakeholders. Notwithstanding the obvious need by Nam Saat Central for an M&E system, the primary stakeholders of any service organisation are the users of the system, in this case women and children and their families. They are the ones first noticing and suffering if the water system brakes down. They are thus the primary beneficiaries of the M&E system, if it is matched with appropriate action in terms of quick repair. To supply data to Vientiane cannot be a motivating purpose.

Indicators of Progress or Impact

The first M&E Consultancy[24] facilitated a participatory review of what they (Nam Saat) wanted to monitor. Progress indicators were selected, although some aspects of O&M were also covered. The suggestion to only monitor progress was at variance with the project design that aims at, (although have not detailed) impact indicators. The objective is now only to monitor supply of WATSAN facilities and training in HESAN. This narrow scope is supply-oriented as opposed to impact-oriented and will have repercussions on the ability of Nam Saat Central to achieve its stated objectives. Only a minimal number of indicators should be selected to monitor the progress as well as the impact of the Programme.

Recommendations

Some of the aspects that could easily be broken down into measurable indicators are for example:

1. According to RWSS Strategy: Manuals and Guidelines and training materials and what level they might have reached, approaches and methods used, training content and duration (as progress indicators);

[24] National Centre for Environmental Health & Rural Water Supply Lao PDR, Mission Report on Monitoring and Evaluation, Final, Appendix 6, Stockholm August 2003.

2. Access to facilities: Numbers of households (HHs)/ water source, average meters to water source, consistent flow, percentage of HHs using latrines, numbers of school children /latrine compartment etc.
3. Use of facilities: Consistent use, amount of water used (l/c/d), % of HHs in a village using the protected source – equity in use, optimal use, hygienic use etc. % using latrines, % maintaining latrines clean, presence of handwashing facilities, means of waste disposal by %;
4. Sustainability: Positive indicators: demand driven approach, participation in all stages, community-base management, funds collected for O&M; Negative indicator: down-time of water supplies, spontaneous replication by neighbouring villages constructing facilities and changing behaviours;
5. Gender: Preparation of a gender plan at central and provincial or district levels, implementation of different aspects of the plan, gender disaggregated statistics on staffing in Nam Saat at respective levels, in the Programme, among volunteers, committees and in important positions held, proportion women/men in training, gender mainstreaming in training events per level, and participation in different meetings, tentative gender differences of opinions and consumer satisfaction.
6. Great care should be taken to select indicators that are as useful as possible. Below is a list of qualities of good indicators.

Table 19. Qualities of Good Indicators

	Qualities of Good Indicators	
1.	Valid	Measures what it is designed to do and what makes sense
2.	Reliable	Can be verified objectively and by replication of the survey
3.	Relevant	Important in relation to what should be measured
4.	Sensitive	Easily measuring changes in the variable to be observed
5.	Specific	Focussed on accessible information
6.	Cost-effective	Information gathered on the question is worth the effort
7.	Timely	Available when needed
8.	Substantial	Reflecting essential aspects in precise terms
9.	Independent	If other variables change it will remain the same
10.	Factual	Reflects a fact as opposed to opinion
11.	Plausible	The expected changes can be directly attributed to the intervention
12.	Obtainable	Possible to access or create

- **The 7-step approach in the context of M&E**

While the international PHAST[25] approach clearly indicate the expected content of the implementation process in a village, the 7-Step Approach is described in such general terms that they could apply for any subject matter. However, step 5 says: "Develop RWSS Village Action Plan" indicating that the content is Rural Water and Sanitation. As the steps are otherwise so general, this imply that there is no assurance that the implementation sequence with hygiene and sanitation training before construction of water facilities is adhered to, thus loosing the opportunity to apply internationally known best practice for maximum impact.

[25] PHAST (Participatory Hygiene and Sanitation Transformation – Materials – a joint project of WHO and UNDP/World Bank Water and Sanitation Programme)

The 7th and last step is Monitoring, evaluation and learning lessons. How this is going to be implemented in practice is explained in the IEC Manual. However, according to the first M&E Report this step has not been put into practice in most provinces.

The M&E report is devoting a major part to establishing an M&E system on what Nam SAAT and the Programme need to know about themselves – a Management Information System (MIS). Naturally, this is an urgent and well-justified felt need at this level, but what is useful at other levels?

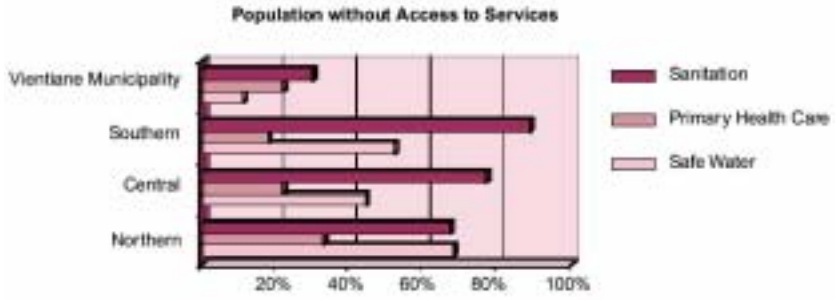
Conclusions

1. The proposed M&E system has been initiated from above, primarily thinking of what the Central Nam Saat organisation need to know, but not taking into consideration what action need to be taken based on the information in order to support lower level implementation and follow-up. There are no reciprocal benefits ensuring sustainability.
2. Participatory Monitoring apparently exists in Laos but Nam Saat does not yet use it.
3. The UNICEF database is a nice M&E model for Nam Saat, but it will probably take a considerable time before information is gathered, cleaned, computerised, compiled, analysed and reported on, to serve as an M&E system guiding sector development;

Recommendation

1. The Programme should link up with UNDP to Monitor the WATSAN situation in the country. Below is an illustration from the Human Development Report 2002 which support the impression the JEE has got of the overall WATSAN situation in Laos. There is need for further assistance.

Figure 8.



Appendix 1.

Terms of Reference for
Joint GoL/Sida Evaluation of the National Water Supply and Environmental Health Programme

Introduction

A Joint External Evaluation (JEE) of the National Water Supply and Environmental Health Programme (Nam Saat) is to be undertaken by the Government of Lao PDR (GoL) and the Swedish International Co-operation Agency (Sida) during the first half of 2004.

The current agreement between GoL and Sida for the water supply and sanitation sector in Laos expires the 30 June 2004. The purpose of the evaluation is to assess whether the initial and intermediate goals and objectives of the Programme have been achieved. Further, the JEE will seek to establish whether this support has been relevant and cost effective and has attained the effects as desired by Sida and GoL for such support.

The JEE will be conducted by specialists selected jointly by Sida and GoL and their work will be guided by this Terms of Reference.

Background

The National Centre for Environmental Health and Water Supply (Nam Saat) under the Department of Hygiene and Preventive Medicine in the Ministry of Public Health is the lead agency for water supply and environmental hygiene activities in rural areas. Nam Saat relies largely on external funding for supporting its activities.

In 1990, UNICEF initiated a Rural Water and Sanitation Programme (WES), which continued from 1992 to 1997 with financial support from Sida.

The performance of Nam Saat in the 80's and 90's remained poor due to a combination of factors, such as use of inappropriate technology, undefined roles of the communities concerned in the execution of the project, limited involvement of the main counterparts and communities in the project design and implementation, and externally driven projects/targets.

With the approval from the GoL, Sida in 1994 engaged the UNDP-World Bank Water and Sanitation Programme for East Asia and the Pacific (WSP-EAP) to complement the UNICEF support to Nam Saat. The support by WSP-EAP was geared at strategic planning and institutional strengthening of the National Water Supply and Environmental Health Programme (NWSEHP). One important component was the assistance given to the development of the Rural Water Supply and Environmental Health Sector Strategy and Guideline National Framework, which was launched in November 1997.

Sida's funding to the programme has been channelled through UNICEF, WSP-EAP and increasingly directly to Nam Saat. In 2001 Sida ceased channelling funds through WSP-EAP. Sida's support continued with the Phase II, Transitional RWSS Programme 1998–2002, which was later extended with an 18 months Consolidation Phase from January 2003 to June 2004.

Service delivery of water supply and sanitation has focused to poor and remote areas. Several reviews have been conducted during the Phase II programme:

Permanent Advisory Group (PAG) missions were made in February 1999, November 1999 and August/September 2000 including the mid-term review meeting; Sida review missions in December 1997, April 1999, December 1999, September 2000, April 2001, November 2001, May 2002, October 2002, April 2003 and October 2003. A semi-annual review is planned for February 2004.

This document is the Terms of Reference for the Joint External Evaluation that will take place during the first half of 2004. The output will be presented to the participant bodies in a Joint External Evaluation Report.

Purpose and Scope of the Evaluation

The current agreement between GoL and Sida expires 30 June 2004. The JEE forms the final assessment of the Sida support to the sector. The purpose is to review the relevance, achievements, impact, cost effectiveness and lessons learned of the programme.

The JEE shall cover all relevant aspects of the Sida funded support to the NWSEHP over the period 1998–2004, as channelled through UNICEF, WSP-EAP and Nam Saat.

Further, it shall assess the achievement of the main objectives as set out in the Nam Saat Phase II proposal to Sida for *"Transitional Support to the National Water supply and Environmental Health Program Nam Saat over the 5-year Period 1998–2002"* and in the proposal for the Consolidation Phase *"Extension of the Transitional Support to the National Water Supply and Environmental Health Programme, Consolidation Phase, January 2003–June 2004"*.

NWSEHP Objectives of the Evaluation

1. To discuss if the design of Phase II and of the Consolidation Phase as well as the Project Proposals of these Phases seem to be relevant and feasible in light of GoL and Sida policies.
2. To assess if institutional capacity, human resources, and processes have been developed and strengthened to a sustainable level as envisaged in the Project Proposals.
3. To comment on to what extent the programme has contributed towards sustainable improvement of health, poverty reduction and economic development among the rural target population.
4. To document lessons learned and best practices of the Support to Nam Saat.

Issues to be covered in the Evaluation

The JEE shall cover the Sida support to Nam Saat from January 1998 to the present time.

Special consideration should be given to the fact that the programme was primarily designed to build institutional and human capacity and create an environment, through decentralisation of roles and responsibilities, which would better enable Nam Saat to provide its services to the rural populations.

The JEE shall discuss the efficiency and effectiveness of Sida funding being channelled through three channels, namely Nam Saat Central, WSP-EAP and UNICEF.

The JEE shall discuss the efficiency and effectiveness of the two-pronged funding, i.e. geared both towards building institutional and human capacity at central and provincial/district level, and towards service delivery in rural villages.

The JEE shall comment on the time lags in implementation that has, possibly as a result of the centralised support, shortened the actual project period in the target provinces/districts to two to three years only.

The JEE shall concentrate on, but not necessarily be limited to, the following issues:

1. The relevance of the goals and objectives, considering, among other things, if:
   2.a focus at provincial level rather than central (i.e. by-passing Nam Saat Central) would have been advantageous given the objectives set out in the project documents
   3.a focus on service delivery to provinces/districts better developed, more densely populated and less remote would have been advantageous from a cost-efficiency perspective

i. The cost effectiveness of the support, from a GoL point of view, again taking into account points 1. and 2. above

ii. Achievement of the objectives of the Programme.

iii. The Lao-leadership and Lao-ownership of the Programme.

iv. The compatibility between the Programme activities and the GoL decentralisation policies

v. The improvement and strengthening of the private sector involvement in RWSS activities

vi. The impacts, immediate and long term, of the Programme's activities at central, provincial/district and village level

vii. The sustainability of the support, both of "hardware" and "software" components

viii. The distribution of funding between "hardware" and "software" components

ix. Whether gender issues have been adequately pursued.

x. If the technologies used for the service delivery have been appropriate

xi. The likelihood of increased sustainability and impact of the project if it had been extended beyond June 2004.

xii. The role and performance of the supporting agencies UNICEF and WSP-EAP.

xiii. The role and performance of the advisers at central and provincial levels

Methodology

The Evaluation Team shall visit the central office of Nam Saat and some provincial and district offices and villages where implementation has taken place.

The JEE shall include interviews with staff from Government authorities, Nam Saat at central, provincial and district level, users in supported villages, partner organisations, other agencies, advisers, and others thought relevant.

The JEE shall include analyses of relevant documents produced during the project period. The list below serves as a guide, but should not be seen as conclusive:

1. Sector Strategy and Guideline National Framework, and its revision
2. Project Proposals
3. Progress Reports
4. Work Plans
5. Analytical Reports
6. Agreed Minutes from Reviews
7. Consultancy Reports, e.g. HRD Plan, Gender Action Plan, IEC Mission Reports, M&E Mission Report

The Evaluation Team

The Team is expected to comprise skills on issues as Institutional/Organisational/Administrative Development, Rural Development, Human Resource Development, Environmental Hygiene, Rural Water Supply and Sanitation.

The team should be composed of both expatriate and local specialists. The expatriate team member(s) should have extensive relevant international working experience and preferably some familiarity with Lao culture and conditions.

The local team member(s) should have extensive relevant working experience, preferably also international, familiarity with Lao administrative structure, and good command of English.

It could also be considered to include a Swedish young professional for self-learning purpose. This would help to strengthen the resource base for Sida.

Reporting

1. Draft Summary Evaluation Report (DSER) and Debriefing Workshop (DW):

Not more than five days after the completion of the fieldwork the Team shall present their findings and conclusions to Sida/Nam Saat by e-mail in the form of a Draft Summary Evaluation Report.

The findings shall then be presented in a ½ to 1 day meeting, with invitations to representatives from the Government, Ministry of Health, Department of Hygiene, Nam Saat, UNICEF, WSP-EAP, Embassy of Sweden, Sida and other selected sector partners allowing ample time for all the give their comments to the findings.

2. A presentation of the findings shall be made to programme partners and external support agencies in a National Seminar in Vientiane during the first week of June 2004.
3. Draft Evaluation Report (DER):

A Draft Evaluation Report shall be submitted by e-mail to Sida Nam Saat, Ministry of Health, UNICEF and WSP-EAP within two weeks of the DW. The stakeholders shall be given two weeks to present written comments to the Draft Evaluation Report.

4. Final Joint External Evaluation Report (FJEER):

A Final Joint External Evaluation Report in Word 97 Format shall be submitted digitally and in 2 hard copies to Sida and Nam Saat within five weeks of the DW.

Time Schedule

The Evaluation, including DSER, DW and DER is expected to be carried out between March and May 2004, and is estimated to take two to four weeks.

The DSER should preferably be submitted latest 17 May, the findings shall then be presented in a ½ to 1 day DW and the FJEER latest 30 June.

Annex 1.

Specific Aspects of the Sida Supported Nam Saat Phase II and Consolidation Phase for the Joint External Evaluation Process

- *Human Resource Development (HRD):* Comment on the progress with the development of the HRD plan and the potential of this plan for meeting all the training needs of Nam Saat
- *Adherence to the Sector Strategy:* Comment on the efforts made to adhere to the original project document for Sida supported Nam Saat Phase II Transition Program, including adherence to the strategic principles in implementation of field activities – remoteness, poor areas, focus on ethnic minorities, demand driven approach, guidelines for cost-sharing, etc.
- *Monitoring and Evaluation:* Comment on the progress made with the development of a monitoring system for use at various levels, as well as the training activities undertaken and planned.
- *Training:* Assess the relevance of the different kinds of training given in the past years under the Phase II and Consolidation Phase programmes in relation to training needs of staff and users' groups. Also assess to what extend these training activities have been integrated in the HRD plan.
- *Technology and technical skills:* Comment on the choice and use of technology including design material, equipment and construction methods of the water and sanitary systems. As appropriate, comment on the quality of installation, training programs and actual skills of installation teams.
- *Sanitation:* Comment on level of technology; cultural adaptations; promotion of the use of sanitary latrines; possible weaknesses; and prospects for financial, environmental, cultural and institutional sustainability of the sanitation part of the program.
- *Hygiene education:* Comment on the hygiene education as part of the health training alongside the physical improvement of water supplies and sanitation, including the results of specific actions of promotion, e.g. involving school and efforts to reach the people in remote communities.
- *Water Supply:* Comment on level of technology; cultural adaptations; promotion of the use of water from an improved source; possible weaknesses; and prospects for financial, environmental, cultural and institutional sustainability of the water supply part of the program.
- *Gender:* Comment on Nam Saat's progress and plan for mainstreaming gender into regular hygiene education, water supply and sanitation activities and into the organisation.
- *Maintenance of systems:* Assess conditions for community based maintenance, e.g. prevalence of relevant knowledge; community administration; necessary financial resources; and availability of spare parts.
- *Community participation:* Comment on the existing community involvement; the field methodology and the manuals used including the development of strategies adapted to different cultural settings; the development of gender strategies and involvement of women in program promotion and implementation.
- *Financial aspects and cost recovery:*Comment on the cost effectiveness; level of Government funding and possibilities of cost recovery, including a description and assessment of different financial systems that may be utilised within the program to organise and administer the collection and handling of community funds.

- *Financial and Procurement systems:* Assess the progress with the development of internal financial and procurement/store management systems.
- *Co-ordination:* Assess the co-ordination and integration required and achieved at different levels regarding planning, monitoring and follow-up procedures as well as systems of reporting results.
- *Reporting and networking/sharing:* Assess the internal/external reporting system, and the reporting to Sida; especially the reporting of planned achievements, actual results and program cost effectiveness.
- *Nam Saat institutional changes:* Assess and comment on the changing role of Nam Saat in light of the ongoing changes in Lao PDR and Nam Saat's own internal transition from "implementor" to "facilitator" of rural water supply and sanitation service provision to rural poor areas, as well as the ongoing restructuring process in the Ministry of Health.

Appendix 2.

People Met

Arounlangsy, Manilath Ms	Communications and Learning Specialist, WB WSP
Bangsy Phouthavong Ms.	Finance and Administration Division
Bounma, Bupha Mr.	Monitoring Unit, Central Nam Saat
Bounmee,Mr.	Village Chief, Ban Don Chan, Thateng Distr. Sekong Province
Bounsuane, Mr.	STC/Sida on Financial management
Buonme, Mr	Village Chief, Ban Don Chan, Thateng Distr. Sekong Province.
Chanthaphone Soutsakhone, Dr.	Deputy Dir. Nam Saat Central
Dahlberg Bo Mr.	Rural Water Supply and Sanitation Advisor RWSSA
Delporte Francois Mr.	Provincial Adviser Bokeo/Sayabury
Engtröm, Jan-Erik Mr.	Chief Technical Advisor CTA
Eriksson, Set	Provincial Adviser Huaphan
Khampasong Thuang Thong Mr.	Deputy Chief of Environmental Division
Khamphiane Vanhmany, Dr.	Vice Director Vientiane Province
Khampienne, Dr.	Director, Dep. of Health, Vientiane Province
Lavi, Na Ban Ms.	Laman Distrikt Sekong Province
Manilath Arounlangsy, Ms	Communications and Training Specialist
Maniphouxay, Nouanta Dr.	Director, Central Nam Saat
Meadley Thomas Mr.	Country Team Leader Lao PDR/Water and Sanitation Program – East Asia and Pacific (WSP-EAP)
Michel Tuckson Mr.	Consultant on HRD
Na, Ban Lavi, Ms.	Lamam District, Sekong Province
Namsema KeoOudom Dr.	Chief of Administration Division
Phandanouvong, Sybounheung,	Mr Research Analyst, WB WSP
Phonsena Soukpadith Dr.	Chief, HRD Unit, Dep. Chief, Admin. Dept.
Pickardt Waldemar Mr.	Chief WES Section. UNICEF
Reik Daniel Mr.	Consultant, Water and Environmental Management
Reomamvong, Boon Dr.	Dep. Chief of Environmental Division
Santanu Lahir Mr.	Senior Water Supply and Sanitation Specialist, previously Country Team Leader Lao PDR/Water and Sanitation Program – East Asia and Pacific (WSP-EAP)
SanyPher Heomany, Mr.	Dept of Water Supply Division
Sombath Southivong Mr.	Programme Officer, Swedish Embassy.

Somchai, Dr.	Director, Department of Health, Sekong Province
Soukpadith, Phonena Dr.	Deputy Head Admin. and Head of HRD Unit
Suvanthong Bouakeo Mr.	Chief of Envir. Health Div., SanitaryEpi. Inspector
Thongphoune, Dr.	Chief, Hinheub Distr. Nam Saat, Vientiane Province
Tuckson, Michael, Dr.	HRD Consultant
Vongsiprasom Sengsavanh Ms.	Senior Programme Officer, WES section, UNICEF
Principals and Teachers of Village Schools and villagers	

Appendix 3.

Review Documents to the Consultants working with the Joint External Evaluation

1. Christer Holtsberg (Bostrand, Lisbeth), Förlängning och utökning av stöd till National Water Supply and Environmental Health Programme, Lao PDR 2004
2. Project Proposal and Annexes, 1998–2002 Transitional Phase (TP)
3. Project Proposal, 2003–2004 Consolidation Phase (CP) 5 November 2002
4. Sector Strategy, November 1997 (TP)
5. Draft Revised Sector Strategy, English version with Annexes, 12/03/04 (CP)

Work Plans

6. October 1999–September 2000 (TP)
7. October 2000–September 2001 (TP)
8. October 2001–September 2002 (TP)
9. October 2002–March 2003 (TP & CP)
10. January 2003–March 2003 (CP)
11. January 2003–September 2003 (CP)
12. October 2003–June 2004 (CP)

Progress Reports

13. 1998–1999 (TP)
14. October 1999–September 2000 (TP)
15. October 2000–September 2001 (TP)
16. October 2001–September 2002 (TP)
17. October 2002–September 2003 (TP & CP)
18. October 2003–February 2004 (TP)

Permanent Advisory Group (PAG) Reports

19. Report No.1 March 1999 (TP)
20. Report No.2 November 1999 (TP)
21. Report No. 3 September 2000 (TP)
22. Proposal for accelerated transitional support to develop financial & procurement system 1999–2000
23.
24. Mid Term Review Report April 2001 (TP)
25. Comments to the MTR, 2001-04-23 (TP)

Agreed Minutes

26. 21–23 April 1999 (TP)
27. 13–17 December 1999 (TP)
28. 25–29 September 2000 (TP)
29. 25–27 April 2001 (Mid term Review) (TP)
30. 13–16 November 2001 (TP)

31. 6–7 May 2002 (TP)
32. 15–17 October 2002 (TP)
33. 1–2 April 2003 (CP)
34. 9–10 October 2003 (CP)
35. 5 March 2004 (CP)

Analytical Reports

36. Inception Report July 2001 (TP)
37. 1999–2000 prepared by the Advisers July 2000 (TP)
38. April 2001–March 2002 prepared by TA Advisers March 2002 (TP)
39. Final by Regional Adviser Mr. Bijay Shresta, March 2003 (TP & CP)
40. March 2002–April 2003 prepared by CTA team May 2003
41. May 2003–April 2004 prepared by CTA team May 2004

Monitoring & Evaluation Consultancy Reports

42. Mission Report No.1 2003-08-07 (CP)
43. Mission Report Draft 2004-03-15 (CP)

IEC Consultancy Reports

44. Study on Organisation of the Water Supply and Sanitation Sector in Lao PDR August 2002 (TP) Clean Water (Nam Saat) for Laos' Villages – A mid-term review of the Sida supported project for improved rural water and sanitation in Laos by Geoscope in collaboration with Swedish Development Advisers For Nam Saat and Sida April 2001
45. Mission Report April–May 2003, 24 May 2003 (CP)
46. Mission Report August–September 2003, 6 September 2003 (CP)
47. Mission Report February–March 2004, 12 March 2004 (CP)

Consultancy Reports on Gender Aspects

48. Gender Action Plan

KAP Survey Reports

49. Primary School Sanitation Programme Assessment 2001 18 August 2001 (TP)
50. Baseline KAP study BTC October 2003

HRD Plans

51. A Draft Human Resources Development Plan 2002 including 4 appendices.
52. Draft Summary of Human Resources Development Plan 2002 including an Explanatory Report and 4 Appendices.
53. How to Proceed with the Recommendations in the HRD Plan, 2002.

UNICEF Reports

54. Agreement for Construction of Boreholes for drinking water Between Water and Environmental Sanitation Section, UNICEF And Drilling Unit Provincial Nam Saat, 2002.
55. Situational Analysis, Water and Environmental Sanitation, 1st Draft 4 February 2004.
56. Progress Report on WES Implementation in 8 Provinces with the Support of UNICEF, funded by Sida from January 2003 to present.
57. Mid Term Report Water Supply and Sanitation,1st Draft 4 February 2004.

WES-EAP Reports

58. Looking Back Too See Forward, Mini Assessment Study on the Use and Sustainability of RWSS Services in Lao PDR.
59. Annual Report January–December 1999.
60. Progress Report 1999–2000.

Nam Saat WES-EAP Reports

61. Building blocks used to achieve rural water supply and sanitation (RWSS) sector policy reform in Lao PDR by Dr. Nouanta Maniphousay (Nam Saat), Dr. Soutsakhone Chanthaphone (Nam Saat), Sam Godfrey (WEDC), Rose Lindone (WEDC), Santanu Lahiri (WSP-EAP), Thomas Meadley (WSP-EAP).
62. Handbook for Lao PDR Rural Water Supply and Sanitation Sector Strategy, May 2001.
63. Use and Sustainability of Past Rural Water Supply and Sanitation Services in 38 Villages of 8 Provinces in Lao PDR, March 2002.
64. Consumers Choice…The Sanitation Ladder: Rural Sanitation Options In Lao PDR, May 2001.
65. Report On The Study Of The People's Pump In Lao PRD November 2000.
66. Translating strategy into practice, Santanu Lahiri, Soutsakhone Chanthaphone and Thomas Meadley, 2003.

Nam Saat WES-EAP and UNICEF Reports

67. From Strategy into Practice – Towards better Hygiene and Behaviour Change for the Rural Water Supply and Sanitation Sector in Lao PDR, July 2001.
68. Moving Gender Strategy Into Practice – Steps taken in the Rural Water Supply and Sanitation Sector in the Lao PDR – A Situation Report, March 2001.
69. Field Methodology For The Application of The Lao PDR RWSS Sector Strategy – A Situation Paper. Nam Saat 2001.
70. Gender Promotion in the Rural Water and Sanitation Sector in Lao PDR

Luang Namtha Province, Provincial Department of Health, Division of Environmental Health and Water Supply and the World Bank IDA, 2002.

71. Community Management Training Manual for Village Water and Sanitation Management Committees, June 2002.

World Bank – WES Program and ICR International Water and Sanitation Centre.

72. Sustainability Planning and Monitoring in Community Water Supply and Sanitation – A Guide on the Methodology for Participatory Assessment (MPA) for Community-Driven Development Programs, Ninanjana Mukherjee and Christine van Wijk, 2003.

Appendix 4.

Content of the Village WATSAN Book

Form	Description	Milestone[26]
A	**"Preliminary Application for RWSS Provision" (Front page of "VWB")**	**MS 1**
B	Community Data[27]	
C	Minutes of community meeting introducing the project concept	
D	Details of demand and commitment	
E	**"Go Ahead Agreement"**[28]	**MS 2**
F	**"Project Application"**	**MS 3**
G	**"Notice of Project Approval"**	**MS 4**
H	Details of provisional community training programme	
I	**Assignment of Village WATSAN Committee**	**MS 5**
J	Details of the Health Awareness Campaign	
K	The Village Action Plan	
L	Details of the Public Awareness Campaign and community Informed Choice	
M	**"Memorandum of Agreement"**	**MS 6**
M2	Bill of Quantities and Cost Estimate	
N	Tendering process	
O	Supervision process	
P	List of Contractors faults to be remedied	
Q	Water quality/quantity test	
R	Details of the communities approval of the work done	
S	**"Completion Certificate"**[29] (inclusive community approval and water quality/quantity certificates)	**MS 7**
T	**Release of funds for completed works**[30]	**MS 8**
U	Nam Saat Random Spot Check	—
V	Records on Operation & Maintenance, incl. accounts record for WATSAN Committee, Village Health Volunteer, Caretaker, Accountant.....	—
W	Notes/Minutes from Village WATSAN Committee meetings.	—

[26] These are important indicators that the "7 Steps" project implementation is being followed.
[27] These "Socio-Economic Data" shall origin from the Community Dialogue and be verified by the Ministry of Health
[28] Notes on outcome on the technical feasibility and cost estimate can be made in the "Minutes" in this "VWB"
[29] After checking and signed by WATSAN Committee member (and independent body)
[30] Based on "Project Completion Certificate" and Community/WATSAN Committee having approved the payment of bill for the completed works.

Appendix 5.

Organisation and Mandate of the Village WATSON Committee[1]

Objectives

- Promote and encourage community ownership and awareness of hygiene and the benefits of safe clean water
- Ensure the sustainable use of water and latrine provisions
- Promote community health through community led health campaigns, inspection and monitoring of water and latrine provisions, environmental sanitation and surveillance of water quality
- Maintain records of water and sanitation developments in the community, particularly using the Village WATSAN Book (VWB)

Organization

• Village headman/deputy	Chairman
• Village Front Organization	Advisor
• Village Youth Union	Member (in charge of security)
• Village Women's Union	Member (in charge of economic matters)
• Village Volunteer (man)	Technician (control, maintenance)
• Village Volunteer (woman)	Control, monitoring and IEC

Duties

1. Health campaigns

- Raising community awareness about water and sanitation
- Mobilize and lead community participation in preserving water provisions, ensure cleanliness around water sources, prevent the destruction of forests around water sources and restrict waste generating activities near water sources
- Mobilize and lead the community in ensuring household hygiene (clean house yards, remove stables from under the houses, ensure the proper drainage of waste water from kitchens and a proper disposal system with regular addition of ash, prevent flows into shallow wells…)
- Gathering and disposal of wastes through fire or burial (as appropriate)
- Encourage the use of latrines, and discourage the practice of random defecation which would bring diseases upon humans.
- Promote personal hygiene, encourage washing hands before eating and after using the latrines, showering and washing faces with clean water (helps to prevent eye disorders, cataracts and blindness) and washing genital parts to avoid sexually transmittable diseases and cancer etc…
- Encourage hygiene among children and discourage playing with soil and dust in order to avoid parasites, diarrhea…

[1] Developed and improved by Dr. Nuanta Maniphousay

- Encourage the consumption of cooked food (to preserve health), and boil water for drinking.
- Other health campaigns (immunization, use of mosquito nets)

a. Prior to construction process

- Prepare the required conditions:
- Mobilize community participation to water and latrine provisions:
- Mobilize funds:
  - In cash (as agreed by community members)
  - In local materials (sand, gravel, wood): (based on technicians' estimates and agreement of the community members)
  - In labor: the village authorities needs to supply village labor and ensure a clear distribution of tasks under the technician's directives

b. After construction:

- Prepare the required conditions:
- Mobilize community management of water and latrine provisions:
- Mobilize funds based upon water used:
  - for operation and maintenance (as agreed by community members)
  - for purchasing spares
- Mobilize labour:
  - for making repairs to communal water and sanitation provisions (as agreed by community members)

2. Control, monitoring and maintenance:

- Control hygiene around water sources and households (at least once a week)
- Control the use of latrines by the community (regularly)
- Control the operational conditions of water provisions
- In case of breakdown, repair as much as possible at once and seek ways to repair other aspects which the village cannot handle
- Organize VWC meetings to decide disbursements for the purchase of spare parts
- In case of serious breakdown, assistance must be urgently requested from the district/province.
- Monitor and control water quality (where water quality testing equipment is available). If the results indicate a serious contamination solutions must be sought by:
  - Using chlorine
  - Mobilize the community to boil water
  - Improve the safety of the water provisions (prevent the presence of waste water from households, stables and latrines near water sources)
  - Otherwise, the water provisions must be removed to a safe place (costly).

3. Mobilization of understanding of service charges/collection of fees

- Reach community agreement through consultations on different service charges (large and small households, enterprises using high volumes of water, low income families…)
- Upon agreement, prices are assigned to each type of households.
- Collection of fees must be recorded as revenues, receipts given to villagers and reports made to the village committee.

- Decision of proportions to be kept in a bank account and for maintenance (to be agreed with the village authorities; unilateral decision-making should be avoided)

4. Village WATSAN Committee (benefits)

- All members of the VWC would use water free of charge
- From maintenance fees:
  - Time used for maintenance based on treatment, to be determined by the Committee for the work done by the VHV
  - When purchasing parts in town, the Committee must provide travel and food costs
- Praise from the community (in case of good management)
- Organization of construction labor supervision team
  - The village committee must ensure that tasks are clearly distributed and that permanent supervision of construction works is ensured
  - Construction of latrines: Direct works and encourage villagers to carry out the construction works (excavation and installation of erosion protection rings or bamboo), covering latrines and encourage the use of local materials to build walls and roofing for latrines to ensure timely implementation of agreed schedule.

5. Learning from experience

- The village committee: must learn from actual experience.

  1). Construction techniques: District/province or central technicians may initially guide the works through technical demonstrations

  – The village volunteer must lead the villagers and learn from the process.

  – Routine maintenance methods must be acquired and be able to repair when necessary

  2). Management

  – Learn water provisions management

  – Learn methods to collect and service fees from the community as village funds (avoid inconsiderate expenses)

  – A person is assigned the task of keeping accounts (separate)

  – A person is assigned the task of keeping the cash (separate) à Keep in bank account.

  – Rules on acceptable expenses: ð Duly approved by the committee.

  – Learn health campaign methodologies

  – Learn water quality surveillance methods

  – Monitor and maintain the water and sanitation provisions

  – Maintain records of developments in the Village WATSAN Book

6. Report to the District: (using the VWB as a basis, at least once or twice a year)

1). Status of water use and conditions of water provisions (inefficient and causes…)

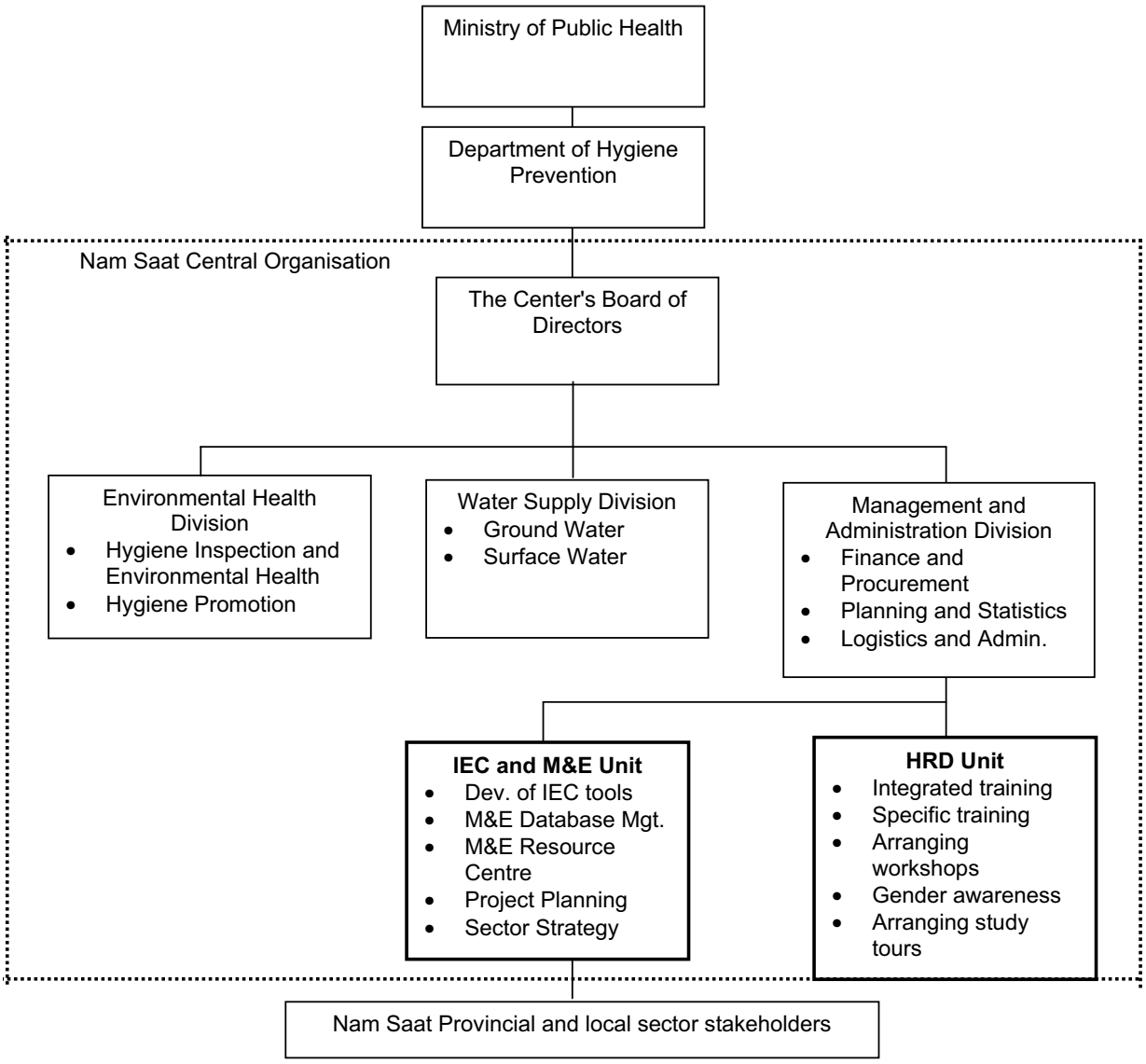
2). Request assistance in repairs exceeding the village's capacity and report 1)-

3). Water quality (results of control and remedies applied)

4). Use of latrines and status of environmental health (general cleanliness…)

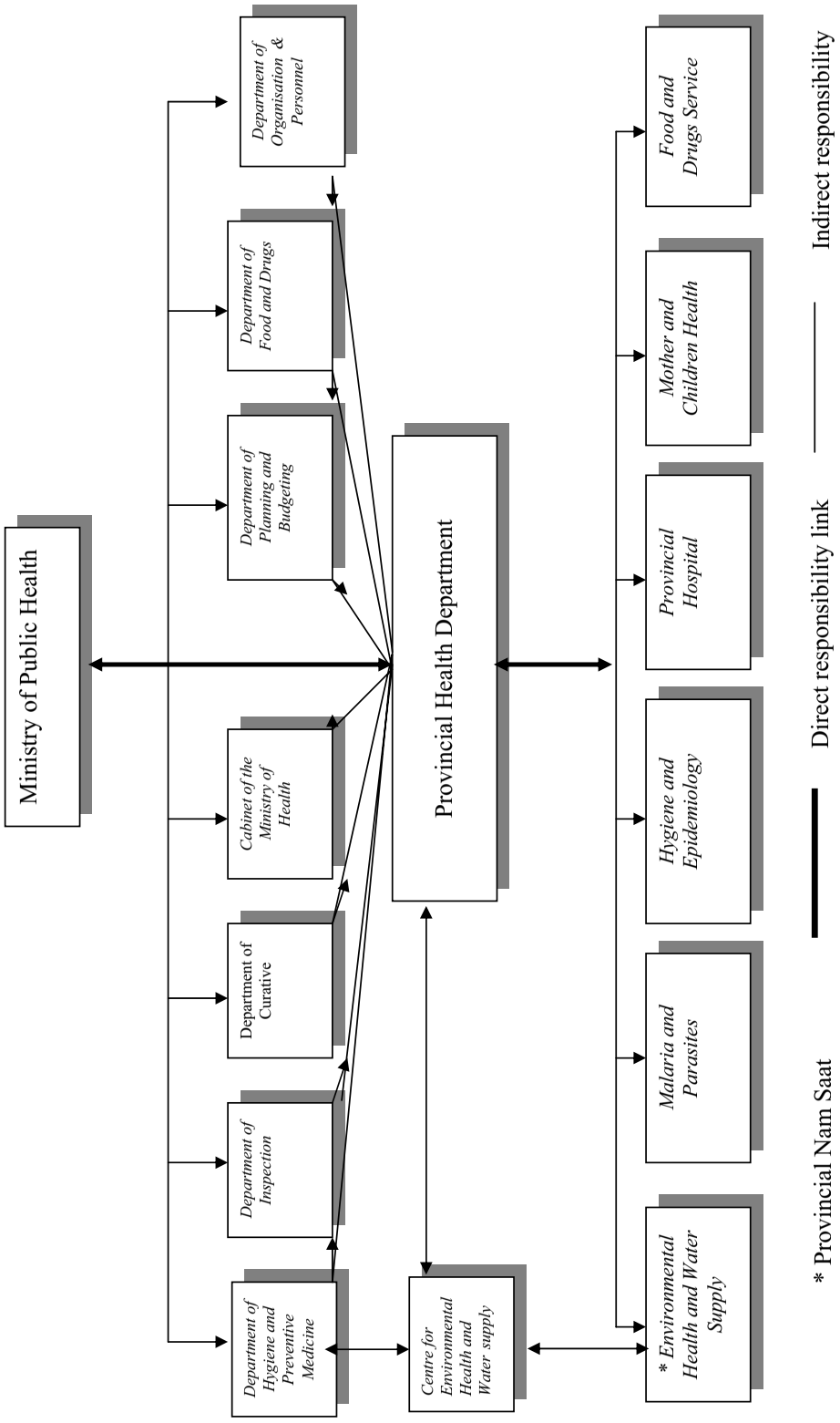
Appendix 6.

Simple Nam Saat Organogram Indicating New Units



Appendix 7.

Nam Saat within Ministry of Public Health



Appendix 8.

Agreed upon minutes from Annual PAG Meetings[1]

Agreements made	Date of decision	Implemented by
M&E Reporting Format Developed Functioning system in place	23 April 1999 17 December 1999 29 September 2000 7 May 2002 2 April 2003	ASAP, Draft made but too ambitious Done in 2000 1 Oct 2002 Initiated but not yet operational in May 2004
Handbook for Rural Water Supply and Sanitation Sector Strategy	Initiated by Nam Saat, WSP-EAP and UNICEF	Issued in May 2001
Issuing of Learning note "Building blocks used to achieve rural water supply and sanitation (RWSS) sector policy reform	Initiated by Nam Saat, WSP-EAP and UNICEF	Issued in 2002 (undated)
Village Promotion Teams (VPTs) to be institutionalised	16 November 2001	15 January 2002
Establishment of Committees for: Coordination of spearhead provinces, Epidemic Diseases, Studies and Research and M&E	16 November 2001	15 January 2002
Peoples, pump – produce pamphlet	29 September 2000	Unknown – did not work
Ecological sanitation design options to be explored and short-tern consultant procured if needed	7 May 2002 17 October 2002 2 April 2003	On request from MoH, but apparently not required
Water quality study for arsenic	16 November 2001	During 2002
Revised Subsidy Policy to be worked out through short-term TA consultancy	29 September 2000 16 November 2001	1 February 2002
Inventory of Private contractors	29 September 2000 27 April 2001 16 November 2001	Not mentioned Ongoing 1 April 2002
TNA to be carried out for preparation of a HRD plan	7 May 2002	Plan prepared by end of 2003
Organisation Study of the WATSAN sector	27 April 2001	August 2002
Review of Roles and Responsibilities in the Sector	27 April 2001	As above
Revision of Roles and Responsibilities of Nam Saat at respective levels	27 April 2001 16 November 2001 17 October 2002 2 April 2003	Not mentioned In revised Annual Work Plan for 2000–2001, ASAP In HRD Plan end of 2003

[1] Birgegaard, Lars and Sandström, Klas. Report 2 from Sida's Permanent Advisory Group on Water Supply and Environmental Health Programme in Lao PDR. November 1999, and Birgegaard, Lars and Sandström, Klas. Report 3 from Sida's Permanent Advisory Group on Water Supply and Environmental Health Programme in Lao PDR. November 2000.

Gender Course	23 April 1999	2 staffs sent to Holland for Gender training.
Work Plan 1999–2000 had Gender Balance Targets		Only partly implemented
Situation Report on Gender issued March 2001 and targets set for the future	27 April 2001	12 female women from ethnic minorities trained as apprenticeships
Finalise Gender Action Plan	16 November 2001	2002
Training in Gender		Carried out at different levels extent and content unknown to JEE.
Gender Awareness activities specified in Revised Work Plan and Budget		Not done yet
HRD Plan for all Nam Saat levels	17 December 1999 29 September 2000 16 November 2001	ASAP Drafted 1 July 2002 Ready December 2003

Appendix 9.

Field Trip Report to Sekong Province

To	JEE Team
cc	Jan-Erik, Chief Technical Advisor, Sida Dr Nouanta Maniphouxay, Director Dr Soukpadith, Dep. Chief of Administration Dr Bouakeo Suvanthong, Chief, Division of Environmental Health
From	Katherine Suvanthong, Sanitary-Epidemiological Inspector, STC for JEE, Sida
Subject	Joint External Evaluation
Dates	27 April–1 May 2004
Places visited	Sekong provincial town (Nam Saat and Dept. of Health offices), Lamam district (Ban Lavee) and Thateng district (Ban Don Chanh)

I. Meeting Dr Somchai, Chief, Prov. Nam Saat Office and Stephan, Prov. Advisor:
At the beginning of phase II, Sida funds were made available but implementation was delayed due to difficulties in co-ordination, understanding and lack of technical expertise to rationally utilise the human and financial resources and the data collected. There were also too many administrative steps in processing documents, proposals etc.

However, within a short period of time Mr. Bije (for two years) and Mr. Stephen (for six moths by now) and UNICEF local staff Miss Sengsavanh and Mr. Bandith have managed to increase capacities especially in the field of financial and administrative management. "I am proud to say now, that in our office everyone understands and is capable to carry out his/her own work without asking for help from the others".

However, technical capacities in hygiene promotion, monitoring and evaluation could not be strengthened to that the extent that people could carry out fieldwork without any difficulties.

In Phase III (consolidation), funds have been made available, people have become more capable but the time has run out and – as the rainy season is approaching – now there is a worry at Nam Saat that not all of the funds can be utilised before end of June 2004. Seeing this problem, other divisions i.e. MOH have already expressed their wish to borrow some of the Nam Saat budget. Other delaying external factors mean result from working with private companies who often sub-contract other companies and cannot perform according to agreed upon time-schedules, or often UNICEF itself causes delays by checking and processing government requests for too long.

Therefore, in the consolidation phase, UNICEF and Nam Saat are adopting a new practice withholding full advance payment, as initially 30% of the agreed contractual fee, which is paid when the agreement is signed when the village WATSAN Committee has been created. The second 30% is paid after construction is completed and the remaining 40% is released for the actual implementation process i.e. trainings on hygiene, social mobilisation etc.

Staff changes are rather frequent at the district Nam Saat offices. Thateng is one of the weakest districts in terms of timely implementation. In the past, there have been serious communication problems between the district Nam Saat offices and the provincial Nam Saat office as the district had no tele-

phone connection. (They have managed to get a telephone a couple of months ago, and they have still no fax connection). Dakcheung, with active support and advocacy on WATSAN by the District Governor seems to be very willing to participate and contribute.

The following types of training were implemented during phases II and III:

- Administration and planning (reporting)
- Survey design of water systems (GFS)
- Training on operation & maintenance for PAT 301
- Training on dug-well construction
- Technical training on latrine constructions
- Computer trainings – this was very practical and needed: "At the beginning of Phase II only myself and my deputy could use computer. Now each of my staff can use it".
- Training on water quality testing and household chlorination in the pilot area

Requests, proposals, comments by Mr. Somchai:

Further training needs:

- Administration: about filing system to ensure the "security" of documents;
- Computer filing system as many people use the same computer
- Other needs: more office equipment, secretarial support.
- Technical trainings: on environmental sanitation (waste water and solid waste management)
- Well-drilling technique and by UNICEF is still pending

Other proposals:

- The provincial Nam Saat is awaiting approx. 10,000 US$ for field monitoring that is currently being retained by NSC due to accountancy errors made.
- No spare parts for the TARA handpumps – what to do?
- The generator caught fired on 22nd March 2004 – how to solve repair costs?
- Consideration to the stationery and communication that is currently being paid by the Govt.
- Resolve communication problems with Nam Saat entral: Proposals at the annual review meetings are not being considered.

Nam Saat Central staffs have worked in the province, and some times they worked without co-ordination with provincial Nam Saat Office.

1. II. The District Health office, Lamam district

Meeting Dr. Phayvan Soukaseum, Chief of Nam Saat and Dr Douangmala, Chief, District Health Office:

Issues discussed at the District Nam Saat Office:

- Funds for monitoring is pending with the Nam Saat Office
- Latrine constructions got stuck up at the company
- Operation and maintenance training on water supplies is pending
- Local advisor, Stephen advices all latrine constructions to be finished before water supplies
- One computer and motorbikes are required to be provided with the related training
- Lack of tools for Hygiene Promotion and community dialogue

- Budget of activities was not received on time
- Criteria for selection of contractor's were not elaborate enough

Pending items:

- Survey design on GFS
- Selection of one village health volunteer per handpump
- One separate room with basic furniture was promised since 1999

Proposal to Sida:

Let the current implementation plan be finished before closing the programme by June 2004

2. III. Ban Lavee, Lamam district

Ethnic village inhabitated by a "Lavee" ethnic group. The only water source in the village is a stream, which runs from the Sekong River and it is located within 100m from the village centre. All households have water flush latrines but they are not in use. There has neither been any training nor follow-up support on hygiene. Doors were nailed or tied so that people could not enter, and those open were completely dry and had no water for flushing.

Bushes and the forest surrounded the village very closely, and the villagers said they prefer to use these as they have not yet got used to using the latrines.

Many HHs have rain water jars for storing domestic water or located near the latrines. These were provided by CAA. All of them were uncovered. Children and adults seemed to be in bad health, and they were very undernourished.

This year's plan had included this village for a borehole construction. The contract for the implementation by the private sector was already signed a few months ago, but up until today the construction has not started. Besides that, the villagers are waiting and ready to contribute local materials and labour for the construction. But they were afraid that, now when the rainy season is coming, the construction might not be done due to the very difficult access road to the village.

3. IV. Ban Don Chanh, Thateng district

The village had not prepared for the evaluation.

With the exception of 10 latrines all latrines were constructed. Two male Village Health Volunteers had been trained but with the trend of promoting women, they were replaced by two female volunteers who now also need to be trained. At our meeting there was only one woman present as compared to the approx. 25 male attendants.

There are 91 households in the village. In the year 2000–2001, Sida supported 50 latrines. This means that 55% of the total number of hhs. have latrines and 45% of hhs still defecate on the ground in the forest. Most households use the latrines according to the Nam Saat officer Vilakone Maniphousay, but this has not been verified. This year, Sida will support construction of 40 more latrines in the village. Most handpumps are in good working condition with exception of one borehole with an Afridev hand pump, which was provided by the Lao-America Fund in 2002. That is broken, and the Village Volunteer has not been able to fix it for a long time.

Village sanitation: Animals are freely contaminating the environment. Small children still sporadically defecate on the ground, and people take baths and wash clothes in the Sekong River" water…
(Here: see results from the HH interviews as well).

School sanitation: Only two latrines are available for more than 200 students (including students from the primary and the secondary schools and teaching staff. This is in violation of the latrine construction guidelines.

The original three-roomed latrine building collapsed due to termites destroying the wooden parts. The teachers have the UNICEF "Blue Box" and they use it during teaching "The World around us" subject. Although they commented that the information and stories need to be updated, and requested new educational tools since the children have a huge demand and interest for this knowledge. They have been using these materials for about two years now. Although they are still very much liked by the children. Students and the teachers themselves have made rhymes and invented stories and songs to keep the thinking alive before new materials arrive. There were no posters nor booklets promoting hygiene found in the school.

Ms Viengmany, a primary school teacher –interviewee– had no latrine at home as their latrine slab broke when it was placed onto the platform (about two years ago). She and her family still defecate in the bushes and forest. They are waiting for a new slab, and of course would like to have it as the other villagers do.

A. Training Activities provided by Nam Saat FY 2002–2003

Topic	Format	Person Days Partic.	Type or Name of Participants	Month and Year	Leaders/ Presenters/ Organizers	Location	Total No. of People	Days per location	Number of Provincial Staffs	Number of District Staffs	Number of Central Staff	Other Agencies' Staff
Administration Division												
Discuss and review project	Workshop	114	Prov, Central, others	Oct-02	Dr. Nouanta Dr. Bounporn	NSC	38	3	6		12	20
Review Work done in 2002 and Plan for 2003	Workshop	200	Prov, Central, others	May-03	Dr. Nouanta Dr. Bounporn	Health Ministry	100	2	37		29	45
Discuss and plan work for 2002-2003	Workshop	80	Prov, Dist, Cent, other	Jan-03	Dr. Nouanta Dr. Bounporn	NSC	40	2	8	14	16	2
Aid policy	Workshop	90		Oct-02	Dr. Nouanta, Dr. Bounporn		NSC	45	2			
Recruiting Minority women	Workshops	50	Prov, Dist, Central	Jul-03	Dr. Sukhphadit	Khammuan	10	5	3	9	4	
			Prov, Dist, Central		Dr. Boun	Sekong	15	4	4	13	4	
		232	Prov, Dist, Central	Aug-03	Ms Kaewdokmay	Bolikhamxay	29	8	6	19	4	
		221	Prov, Dist, Central	Sep-03		Xayabouli	17	13	1	13	3	
Strategic planning	Workshop	24	Central	Sep-03	Dr. Nuanta Ms. Viangmala	NSC	12	2			12	
Researching strategy	Workshop	30	Central	Aug-03	Dr. Kaew Udom Dr. Nouanta	Thalaat	15	2			15	
Accounting and Finance and Procurement and Logistics	Short course	210	Prov, Central, others	May-03	Dr. Thongmaa Dr. Sukhphadit	Thalaat	42	5	24		10	8
Community Dialogue	Workshop	152	Prov, Dist—6 prov +Centr	Jul-03	Dr.Souksakorn Dr. Bounporn	Khammuan	38	4	15	14	9	

Community Dialogue	Short courses	98	Prov, Dist, Central	Jun-03	Dr. Bounporn Dr. Bounma	Sawannakhet	14	7	4	6	4
		98				Salawan	14	7	4	6	4
		98				Borkaew	14	7	4	6	4
Administration	Short course	90	Prov 6 target Prov and Cent	Apr-03	Dr.Tongma Dr. Bounporn	Khammuan	18	5	12		6
HRD Planning	Workshop	45	Central	Oct-02	Dr. Nouanta Dr. Bounporn	NSC	45	1			45
HRD Planning	Short course	252	Prov, Dist, Cent,	Dec-02	Dr. Thongma Dr. Soukhphadit	Bolikhamxay	36	7	13	18	5

B. Training Activities provided by Nam Saat FY 2002–2003

Topic	Format	Person Days Partic.	Type or Name of Participants	Month and Year	Leaders/ Presenters/ Organizers	Location	Total No. of People	Days per location	Number of Provincial Staffs	Number of District Staffs	Number of Central Staff	Other Agencies' Staff
Environmental Health Division												
Research on Regulations	Workshop	6	Central		Dr. Nuanta	NSC	6	1			6	
Latrine use and promotion of EH	Workshop	328	Prov & Central	Jan-03	Dr. Bua Keo Dr. Boun	Vang Vieng	82	4	48	14	18	
Outcomes from Health Education	Workshops	76	Central Prov and Central		Dr. Bua Keo Mr. Wing	Bolikhamxay	19	4	14		5	
		100	Southern Prov and Central			Champassak	25	4	20		5	
		96	North Prov and Central			Luang Phabang		24	4	20		4
		35	Cent and Other			NSC	35	1			21	14
		307				**Total**	103					

Appendix 10 continued

Topic	Format	Person Days Partic.	Type or Name of Participants	Month and Year	Leaders/ Presenters/ Organizers	Location	Total No. of People	Days per location	Number of Provincial Staffs	Number of District Staffs	Number of Central Staff	Other Agencies' Staff
Three cleanliness's	Workshop	72		Dec-03	Mr. Khampao Mr. Wing	Salawan	18	4	2	14	2	
Household chlorination	Short courses	90	Provincial	Feb-03	Ms. Saengphet	Luang Phabang	18	5	6			7
		102	Provincial	Feb-03	Mr. Jantaa	Sawannakhet	17	6	8			6
		80	Prov & Dist	Apr-03		Huaphan	16	5	4	2		5
		84	Prov & Dist	May-03		Vientiane	21	4	2	10		4
		356	Prov & Dist			**Total**	72	20				
Water quality	Short courses	45	Prov & Dist	Sep-02	Ms. Saengphet	Huaphan	9	5	3	2		4
		85	Prov & Dist	Sep-02	Mr. Jantaa	Sayabouli	17	5	3	2		12
		100	Prov & Dist	Sep-03		Salawan	20	5	5	2		12
		125	Prov & Dist	Dec-02		Borkaew,	25	5	6	2		16
		70	Prov & Dist	May-03		Khammuan	14	5	6	3		6
		100	Provincial	Sep-03		Sekong	20	5				
		525	Prov & Dist			**Total**	105	30				
Waste water management food hygiene	Short courses	150	Provincial	Apr-03	Dr. Bua Keo	Bolikhamxay	30	5	20		5	4
		100	Provincial	Mar-03		Vientiane Municipality	25	4	17		4	4
		80	Provincial	Feb-03		Luang Phabang	20	4	12		4	3
		330	Provincial			**Total**	75	11				

Evaluating environmental impact for	Short courses	20	Central	Oct-03	Dr. Bua Keo Ms Keuawan	NSC	20	1				
		135	Provincial	Oct-03		Sawannakhet	27	5	5		5	16
		130	Prov & Dist	Oct-03		Bolikhamxay	26	5	13	4	5	4
		285				**Total**	73	11				

C. Training Activities provided by Nam Saat FY 2002–2003

Topic	Format	Person Days Partic.	Type or Name of Participants	Month and Year	Leaders/ Presenters/ Organizers	Location	Total No. of People	Days per location	Number of Provincial Staffs	Number of District Staffs	Number of Central Staff	Other Agencies' Staff
Water Supply Division												
Water supply	Workshop	324	Provincial and NSC	Jan-03	5 from NSC and a few from provinces	Vang Vieng	81	4	16	14	22	29
Surface Water Unit												
GFS Techniques	Short course	160	Provincial and District	Jul-03	Mr. Saengphet	Sekong	20	8	6	10	4	
Spring Protection Techniques	Short course	24	Province	Oct-02	Mr. Phouwang	Sekong	8	3				
Groundwater Unit												
Use and Management of Hand pumps	Short course	95	Provincial and District	Aug-03	Mr. Somphit	Suwannakhet	19	5	2	14	3	
Use and Management of Hand pumps	Short course	70	Provincial and District	Aug-03	Mr. Putdasene	Salawan	14	5	3	8	3	
Dug well construction	Short course	84	Provincial and District	Oct-03	Mr. Putdasene	Bokeo	12	7	3	6	3	
Rainwater jar construction	Short course	70	Provincial and District	Jul-03	Mr. Bounmi	Bolikhamxay	10	7	2	5	3	

D. Training that Nam Saat attended

Topic	Format	Person Days Partic.	Type or Name of Participants	Month and Year	Leaders/ Presenters/ Organizers	Location	Total No. of People	Days per location	Number of Provincial Staffs	Number of District Staffs	Number of Central Staff	Other Agencies' Staff
Rainwater Harvesting, Storage and Water Tank Construction. Course in China in English language with Certificate.	Course	90	Central 2, Bolikham	Sept–Oct 03	Surface Water	Lunzu Institute, China	3	30	1		2	
Groundwater development and Hard Rock Drilling	Course	20	Mr. Phouwang	Sep-03	Surface Water	Chalmers Univ. Sweden	1	20			1	
Project Auditing (Vietnam)	Course	40	Dr. Thongma	March–April 03	Administration	Hanoi	1	40			1	
English	Course	240	NSC	Mar-02	Groundwater	Quest College, Vientiane	4	60			4	

E. Training by Nam Saat, UNICEF, MOE, LWU, and LYU

Topic	Format	Person Days Participated	Type or Name of Participants	Month and Year	Division/Unit
(The learning environment of children in 186 primary schools has been improved through the Project)		About 37,800 school children	Primary school children	Phase III	NEW/UNICEF/MOE
Learning with Joy for primary school teachers and pre-service teachers	Course	About 900 teachers	Primary school teachers	Phase III	NEW/UNICEF/MOE
Hygiene promotion techniques	Course	272 hygiene promoters	Hygiene promoters, Pr. school teachers, LYU-trainers	Phase III	NEW/UNICEF/MOE/LWU/LYU
WATSA Village Committees' training Village Development Planning	Course	160 village committees	WATSAN Ctee members	Phase III	NEW/UNICEF/LWU/LYU
District Health Promotion Teams Health Promotion	Course	280 members	Team members & young pioneers	Phase III	NEW/UNICEF/MOE/LWU/LYU
Personal Hygiene and Health Education	Course	770 primary school teachers	Primary school teachers	Phase III	NEW/UNICEF/MOE/LWU/LYU

Appendix 11.

Comments on some studies and reports prepared under the programme

A. Reports from Sida's Permanent Advisory Group[1] (PAG)

The PAG consultants spent two weeks in Laos in November 1999. The mission was primarily concerned about programme coverage, but also highlighted that technical options were few and focused to a considerable extent on material inputs external to the communities and that Nam Saat provides these inputs. The mission correctly stated that:

> "It is only if the very considerable capacities of thousands and thousands of villagers in hundreds and hundreds of villages can be mobilised that a reasonable degree of coverage can be achieved. However, this capacity can only be tapped if technologies are used which are based on local skills and local material, as far as possible."

The mission promoted a demand-driven approach and gave a good example of the latrine facilities where the demand-driven approach based on an individual household choice would mean:

- to do nothing – using the bush
- a pit latrine of local materials and bamboo or wood
- pit latrine as above but with a water seal installed on a wooden floor covered with clay.

Unfortunately, the Programme did not follow this advice until very recently when it was introduced in the North East, where latrines are now lined with bamboo instead of concrete rings difficult and expensive to construct and transport. Otherwise, the Programme promotes only one type of latrine for all, and a demand-driven approach is not always evident. There are therefore problem areas where:

- No latrines have been built but concrete rings – supposed to be used for lining the pits are now littering the landscape,
- Pour flush latrines – which are the standard design – are used, – but without water;
- Latrines have been built, – but are used as store-rooms;
- Latrines have been built which are of no use whatsoever.

It has been estimated that 40% of latrines in Sekong were not utilised in 2003 according to the regional Adviser[2]. Apart from the design options which are discussed in more detail in chapter 5 Section 5.3, the advice given on the demand-driven approach has despite strong promotion at Central level not been properly carried out in practice. The concept has most likely been internalised in theory, but there is yet no behaviour change at field level. The Mission also brought out the still worrying discrepancy between the methodology according to the Strategy and what is actually carried out in the field.

[1] Birgegard, Lars and Sandstrom, Klas. Report 2 From Sida's Permanent Advisory Group, November 1999. Birgegard, Lars and Sandstrom, Klas. Report 3 From Sida's Permanent Advisory Group, September 2000

[2] Sherestha, Bijay, Analytical Report II, Khammouane National Water Supply and Environmental Health Programme (Nam Saat) March 2003

Similarly, simplicity was suggested also with reference to the water facilities. At this point the involvement of the private sector was brought up. This has proven to be a good strategy, except that in many instances it only reduced the distance material had to be transported from outside the village.

The still valid issue was the question about the appropriateness of installing Indian Handpumps for which there are no easily available spare-parts. Both latrine designs as well as choice of handpumps are discussed more in detail in Chapter 5 WATSAN Facilities.

Sida realised that the strong emphasis on coverage was in conflict with the intention to serve the remote and poor communities, where both know-how in the form of private sector contractors as well as suitable materials are not available. Hence, there was no easy solution to the problem of quick coverage. As always, there is a difficult trade-off between sustainability and coverage/time.

Main Conclusions made in the report

- Coverage was strongly emphasised. What was meant by coverage was not in terms of people mobilised or trained, but coverage in terms of physical construction of facilities – in other words a hardware focus;
- Methods to achieve it were simple design, use of local materials, local villagers and private contractors;
- The spare part system was seen as a prerequisite of sustainability;
- The need to investigate non-use of latrines.

The CTA and the Nam Saat staff at all levels have done its very best to extend coverage and speed up implementation, promote private sector implementation and use of local materials. The non-use of latrines is still an issue of great concern as it indicates the demand-driven approach has not been used, and that hygiene education has not been successful enough to promote behaviour change.

The PAG Mission also spent two more weeks in Laos in August–September 2000 resulting in Report 3. This was another strong push in the direction of more emphasis on the hardware aspects. The reason was that achievements were less than 50% of planned targets. The question whether the targets were realistic in the first place were not asked. This might be another example of the unfortunate and common problem with supply-oriented programmes making un-realistic targets and plans, resulting in disappointments and an ever-increasing emphasis on more hardware orientation to speed up implementation making the staff frustrated and the Programme more and more unsustainable.

The fact that the project only spent five days training trainers of trainers (TOTs) was brought up, but it was softly stated as *"it raises questions whether such short training (of trainers who in turn are to train those who are to apply the methodology) is effective."* Other countries use between three weeks and three months to train Trainers of Trainers (TOTs). Much stronger words were warranted in light of the wealth of experiences available in the sector since the past 20 years.

Comments on the PAG Reports by the JEE

- Increased coverage should primarily be an issue of mobilising more people. The programme needed a proper TOT approach with sufficient number of well-trained TOTs;
- A stronger reliance of the private sector was suggested. This has been a quite successful change, but the private sector may also need time and support to develop the capacity to work effectively, and in hindsight one may wonder why no training courses were organised for them;
- Slow procurement was highlighted as an underlying cause of the slow disbursement of allocated

funds, but Sida had itself not released funds in an expedient fashion. No money was forthcoming between April 2001 and June 2002.

- With due respect to the disappointment at Sida when only 45% of the allocated funds were utilised, the consultants forged a strong perception at all levels that pre-determined externally imposed targets were key, and implementation was mainly equal to procurement and expenditures. The reasons for these mutual frustrations were most certainly to be found in the project design which did not anticipate the need for capacity-building to be catered for at all levels before the choice of systems and purchases of materials could take place. Ideally, about 6 months is required as a mobilisation and training period at village level – especially in view of the difficulties to reach the villagers during the wet season.
- However, due respect must also be given to the suggested review of the methodology, but – in this context – to get away from the problem of capacity-building at village level by simply referring to NGOs and voluntary organisations is unfeasible. Whatever cadres of people you use, they will invariably need training, and someone has to pay for it if it should be sustainable;
- A good thing was that the mission recommended hiring three TAs,
  - one for private sector relationships and private entrepreneur development,
  - one for refinement of the field methodology and relationships with actors from a community perspective, and
  - one in management, planning, financial management, decentralisation and capacity building. But this suggestion was not implemented.
- It was stated that: "Hygiene education should be continued by UNICEF who would also cater for the School Sanitation Programme". This was evasive, as no attention was devoted to preparing Nam Saat to shoulder this responsibility in the long run, a responsibility that it undoubtedly has according to its MoPH mandate.

Conclusions

- For some reason Sida did not follow the staffing recommended by PAG. No long-term software TAs were hired to match the CTA and the RWSSA who are Water Engineers.
- To leave hygiene education "to be continued by UNICEF" reflected a lack of awareness that this aspect must be integrated throughout the project cycle, and that this implementation requires a mixed hardware/software team approach at all levels, and that Nam Saat has the responsibility for hygiene education.

B. Field Reports Prepared by Advisers

The review team have looked at a random sample of reports, and got access to notes from visits to provinces made between May–June 2001 carried out by the RWSSA. The first report was made in the form of a table with comments on the current implementation status including what agency was involved, where, and with what aspects of WATSAN. This report was good as it can serve as a verbal baseline for M&E. It also facilitates co-ordination of activities between agencies, and it can be used to compare information through a simple content analysis.

Two other field reports were reviewed, made by the RWSSA from his visits to Sekong, Saravan, Savannaketh, Khammouan, Borikhamxay and Bokeo between 17 – 6 December 2003, and Huaphan and

Sayabouri provinces between 23 March and 3 April 2004. These reports are neatly prepared and illustrated with photos. The construction activities were more successful in the Northern Region in Huaphan and Sayabouri Provinces as compared to the Middle and Southern regions comprising Sekong, Saravan, Savannaketh, Khammouan, Borikhamxay and Bokeo. The situation is well described, but the main reasons for the differences in progress were not explained, as the two reports were stand-alone documents. The main focus in the reports was placed on construction of water and sanitation facilities. Water facilities were more clearly reviewed than latrines, and more attention was devoted to school latrines than family latrines. While problems encountered in construction as well as the degree of progress is explained for water facilities, the analysis devoted to the household latrines is very scanty: *"1647 family latrines, most with bamboo lining, are 90% complete"* (in Huaphan). Probably no information was available on the degree of completion – or none of them was ready. Similarly, 12 school latrines were said to be 95% complete. The reports contain no information on latrine use or on hygiene education or disease panorama. The reports were excellent, except for the obvious hardware bias and consequently aspects of importance for improved health and sustainability were not well covered.

Conclusions by JEE

- Progress in installation of Water Supplies is well monitored and analysed although forms are still not used for M&E, which is almost entirely based on on-the-spot inspection.
- Sanitation progress is only mentioned by number of latrines under construction.
- Although the RWSSA is supposed to cover all aspects of programme implementation, there is hardly any mention of the soft-ware components such as training of staff and WATSAN Committees, the community dialogue, hygiene and environmental education, use of IEC materials, M&E and gender.
- Reporting formats indicate what are perceived as important to observe. The hardware bias sends the wrong signals to the staff, and the introduction of the 7-Step Approach to implementation in line with the National Strategy is not facilitated if questions during monitoring visits are only related to construction issues (mainly of water facilities).

Recommendations

- Reporting formats need to be developed also for the software components or else the new approach and guidelines will not be taken seriously;
- All staff need to be encouraged to actively promote the new approach;
- Software and hardware staff needs to work together – not in parallel;
- If the constructed facilities should have a chance to be functioning in some 10 years time the emphasis must shift from pipes etc to people.
- Sida should demand a broader perspective.

C. Analytical Reports

Analytical Report 1999–2000

This was prepared by the TA advisers headed by the CTA Mr. Kanna Baran who explained the long process of planning and visioning the programme implementation taken place during 1997–1998 followed by a long period of waiting for funds during 1998–1999. The 12-step methodology for implementation in the communities was not yet internalised, and had not yet been properly field-tested and

evaluated – at the time clearly indicated by the Sida PAG team – but given little attention. Nam Saat was however concerned that they had "waited for three years" to get the programme going at village level and was no doubt *"tired of theoretical approaches"* as it was stated in a report. The CTA tried to both expand coverage to new areas as well as developing new methods and capabilities. Apparently, this was difficult and it is still today difficult to accomplish.

At this time, attention was focussed at establishing a procurement and accounting system and training in office management. A TOT programme and training in Hygiene Promotion in communities was initiated and Gender equality was emphasised. Already at this time the Administrative Division developed a reporting format and monthly, quarterly and annuals reviews were institutionalised.

Conclusions

- This was apparently a time of transition, when Nam Saat staff felt burdened by new roles and responsibilities and activities leading to high turnover among the staff. The 12 steps for implementation at community level were not carried out in the spearhead provinces until late June 2000, but the last six steps never really got implemented in reality.
- The CTA commented on the organisational culture prevailing at Nam Saat. It was reflected in lack of leadership, regular meetings and communication resulting in limited potentials and opportunities to utilise individual talents.

The 1st Year Analytical Report April 2001 to March 2002

The new TA Advisers headed by the CTA Jan-Erik Engstrom prepared the report. It gives a very good succinct overview of the Programme at that time. It describes how the different actors, Nam Saat, UNICEF and the WSP-EAP collaborated. The task distribution was that UNICEF was responsible for Primary School Sanitation and Water Supply and WSP-EAP was initially responsible for Human Resources Development of Nam Saat Staff at all levels, but the latter input ended in June 2001. UNDP/UNV provided three provincial advisers in the spearhead provinces Bolikhamxay, Huaphan and Sekong.

The total budget for the period 1998–2002 was 55 M. SKr. and slightly less than half of this amount was given to UNICEF for the period up to December 2001. Out of the money paid by October 2001 roughly 2,8 M. SKr. was for UNVs, 3,1 M. SKr. went to the TA component and Nam Saat got 5,5. Thus, a difficulty to get an overview of expenditures is stemming from the fact that the expenditures were covering different timeframes in the same table, but the amount not yet committed and remaining to be spent was anyway 11,7 M. SKr. or about 21%.

The reports brought out the following lessons learnt:

- Working areas of Sida funded activities were not co-ordinated with those carried out by UNICEF – such as control of diarrhoeal diseases, primary health care and primary education. Studies carried out showed that this was "*a waste of resources*". In future the implementation of water supply, household latrines and school sanitation was to be integrated in the Village Development Plan;
- The report stated that the different responsibilities of the CTA had been "tied to an Officer in charge". The CTA is in charge of tasks pertaining to finance and accounting and that is probably also expected by Sida. Other tasks have gradually been delegated;
- The RWSSA supported the Provincial Chiefs and the three Provincial Advisers who were their counterparts;
- HRD activities carried out to strengthen Nam Saat staff were not stated in the report;

- Main constraints pointed out during this period was:
  - Slow transfer and disbursement of funds (8–9 months late)
  - High demands on community contributions
  - Lack of resources at village level
  - Procurement delays but Nam Saat carried out training for the Provincial staff in procurement.
  - Field methodology constraints
  - Insufficient hygiene education in connection with the School sanitation component
  - Programme activities were too thinly spread.
  - Nam Saat not able to perform the sector coordination

The report further stated that more emphasis had been placed on software components as compared to under previous phases. Capacity building had concentrated on Nam Saat central and provincial levels. It was sadly stated that: *"This capacity building has had none or very minor effect at Village and District Level."* There is no attempt to analyse the causes for this discouraging result. The implementation of Hygiene Education according to the Strategy was not adhered to. It was further stated that: "*without full support from all involved parties on this issue the sanitation and latrinisation programme will fail completely*".

However, the field staff in three provinces did receive technical training on design and construction of different types of water supplies. While it was stated that Gender Awareness Mainstreaming should be included in all training activities held by Nam Saat and it's supporting partners it is doubtful whether this has been the case – for example in the above technical training.

The report is very transparent on the problems of community ownership and the Hygiene and Sanitation Promotion was perceived as *"very poor"*.

Hygiene education has been largely left to the Lao Women's Union and the Lao Youth Union, but no reports read by the JEE team have gone into the roles, responsibilities, training and capacity building of these organisations. They are expected to act as change agents wholly on a voluntary basis with hardly any resources at hand.

An interesting conclusion made in the reports refers to access to funds. WB did not advance any funds for provincial activities and only paid them retroactively. This resulted in a more efficient use of the funds, while Sida's willingness to pay for running of vehicles and per diems may have been too lax. UNICEF has confirmed this observation.

Conclusion

The community-based demand-driven process integrating hygiene education throughout the implementation phases had not yet been internalised and transformed into action at this time.

D. Field Survey, mid-term review of Nam Saat, 1998–2002

The purposes of this review was to:

- Assess the performance of the project,
- Summarise lessons learnt, and
- Advise on future support

The team carried out a field survey covering 33 villages in six provinces. A major extent of this report refers to an evaluation of Nam Saat. The findings pertaining to this aspect have already been discussed in Chapter 3 Institutional Framework, Section 3.4 Nam Saat. The performance of other parties such as UNICEF, the WSP office of the World Bank, Sida and the Government were also assessed.
The WSP Office was deemed to have contributed significantly to the methodology of the programme. But that the WSP jargon was difficult especially for the non-English speaking Nam Saat staff to understand. They were also criticised for not assisting Nam Saat in prioritising its many objectives.
Similarly, UNICEF was perceived to have contributed significantly to the introduction of the participatory methodology and in terms of training. UNICEF has also assisted directly in implementation.

The main shortcomings mentioned were the disappointing performance in the spearhead provinces and the School Sanitation Programme. The JEE team has seen no records on action taken to improve these shortcomings except those mentioned in the UNICEF's own recent report discussed below.

The Sida support was intended to be transitional in two ways:

- Promoting a transition to a more participatory and sustainable approach;
- Provide funding during a limited period of time.

In retrospect, both aspects of transition were based on wrong and unrealistic assumptions. A transition to a participatory support from a supply-driven one takes a lot of training and support to overcome resistance to change. This process will take much longer than was originally foreseen. The term transition reflects either lack of awareness of the long-term nature involved in changing from an authoritarian to a participatory approach or simply it was for some reason based on a desire to limit the Sida commitment in terms of time. Secondly, it was too optimistic to talk of transition from Sida to government funding – or perhaps the intention was only to bridge a period until Nam Saat can mobilise support from another donor.

E. UNICEF Draft Mid Term Report Issued 4 February 2004

UNICEF has simplified the overall objective of the Water and Sanitation Programme to read:

– To improve health and well being of rural people, especially women and children, through improved hygiene behaviour and the reduction of water-borne diseases.[3]

UNICEF aimed at covering 8 Provinces with a population of 363,400 people, 920 Primary Schools and 18 Training Centres. The national targets set for providing safe water supply and environmental sanitation is to provide 80% of the rural population with access to safe water, 67% of households with sanitary latrines and 48% of primary schools with water supply and sanitary facilities by 2015.

UNICEF is doing this through three project components: Primary School Sanitation, Promotion of better hygiene practices and construction of WES facilities, and "Reinforcement of National Structures to Ensure Sustainability" which in practice means policy development, capacity building and technical support to sector reforms and restructuring processes such as the decentralisation and the new Strategy and Guidelines.

UNICEF has managed well in utilisation of funds, even during the years that the Nam Saat Programme had difficulties. Expenditures were around 84%.

[3] Master Plan of Operations 2002 – 2006; Government of Lao PDR and UNICEF (December 2001) p 18.

The report highlights achievements now updated for the Nam Saat Final Report of June 2004 referenced in Chapter 5 Table 9. Some salient achievements were that:

- 296 Primary Schools supplied with clean water, sanitary latrines and child-friendly teaching tools addressing hygiene improvement and environmental sanitation issues. The number of schools assisted has since then increased to 474 schools assisted with water and 463 schools with sanitation, but as the Nam Saat Programme and UNICEF has different reporting periods there has not been such a speed-up as these figures may indicate. Maybe it suffice to say that UNICEF has managed to cover about 470 schools out of the planned number of 920 to be reached by 2015. With an average number of 158 schools covered in each year (based on table 9 in chapter 5) this seems to be an achievable target;
- Development of a variety of social marketing tools for hygiene education, such as "*Learning with Joy*" teacher training and tool box – the so-called "*Blue Box"*- and user-friendly hygiene manuals, "*Mena's Three Wishes"* and the "*Meena and Worms"* cartoon booklet, games, flipcharts, posters and leaflets. These are much appreciated by teachers and children;
- De-worming in 23 schools appears to be successful as data from three schools indicate a reduction of Ascaris infestation rates from 72% to 28%. The de-worming of children will now be expanded to 3–4 districts in 2 provinces;
- A study from 2003 indicates that 380 villages out of 11,800 were identified as villages in high-risk zones for possible arsenic contamination of drinking water sources from shallow aquifers. These villages are targeted for WQ assessment in 2004;
- UNICEF has monitored the composition of WATSAN committees in 2002 and found that about 45% of committees have selected female participants and that they are adequately represented in 90% of hygiene promotion teams. The secondment of 13 ethnic women volunteers in 3 of the 8 target provinces is expected to further strengthen the gender equity. A workshop was also organised on Gender Aspects for Nam Saat Staff in 2003.
- Participation of Children and Young People was a process to develop partnerships initiated in 1998. A "*Young Pioneers Network*" was started in 2003 to reach children and youth. Activities include songs and drama performances and during the past two years 332 children were involved in 41 *"Mini Concerts*" to promote better hygiene;
- Inclusion of hygiene education into the curriculum of teacher training colleges is a very important achievement made by UNICEF. Hopefully the new focus on pre-service teachers will not compete with the equally important need for in-service teacher training.
- UNICEF has naturally participated actively in the activities organised together with Nam Saat such as the promotion of the new Strategy, Guidelines etc. and associated workshops and training events.

Conclusion

UNICEF has clearly been able to promote very significant sector developments.

F. UNICEF Draft Situation Analysis Issued 4 February 2004

This report represents an excellent and concise study of the WATSAN situation in the country. Only a few interesting data are referenced here, namely that:

- Access to safe drinking water is on a national basis 58%, but it varies between the nine provinces listed in the report from about 48 to 79%;

- A serious aspect highlighted in the report is that data from a Participatory Assessment in 38 villages. This revealed that on average three out of ten households did not take full advantage of the available improved water supplies. This means that only 39% in reality are using safe water.
- Access to safe excreta disposal was according to Nam Saat data about 41,6% but provincial disparities were here even greater – from 13,1 to 74,6 %. In the areas covered by UNICEF this variation was between 24 – 64%.
- Only 12% of primary schools have access to water and sanitation;
- 58% of households cover water containers at home;
- A large majority are using the forests for defecation and this is understandable as 68% use sticks and leaves for anal cleansing. (This behavioural aspect has not attained much – if any interest and it was not further commented on. It seems necessary to discuss how this habit influences the interest to construct pour flush latrines. During a visit to a village the JEE team noticed that in one of the latrines people kept "fresh" sticks to the left and used ones in a container to the right of the slab. If flies are around the hygienic aspects of the use of the latrine might in such cases be worse than using the forests.)
- Of those who have latrines (42%) 75% were also using them (so we are down to 31,5%) and a quarter of all the latrines were not clean (10,5%) – meaning that not more than 21% use hygienic latrines as a national average. (This correlates well with high infestation rates among school children.)
- Almost all washed hands before eating, but only 32% did so after defecating, and 33% used soap for handwashing.
- Sustainability is a serious problem. Only 8% of the villages considered themselves having highly sustainable systems, 53% reported acceptable sustainability and 39% low sustainability.

These data underpins the need for continuing and increased efforts on hygiene and sanitation and training of WATSAN committees and villagers.

G. Externally Commissioned Studies

There are several KAP studies carried out over the years. Some are only mentioned here, such as the KAP Study on Hygiene awareness in 26 villages in ten target provinces (Houaphan, Luang Prabang, Sayaboury, Bokeo, Bolikhamxay, Savannakhet, Khanmmouane, Champassak, and Salavan provinces) for the National Centre for Water Supply and Environmental Health and the Swedish International Development Agency (Sida)/HIFAB.

There is also a Baseline KAP study on Hygiene and Awareness in 32 target villages of Savannakhet and Salavan Provinces March–October 2003 through the Lao-Belgian Technical Co-operation (BTC) in Vientiane, but the data has not yet been fully finalised but preliminary findings of the latter indicate that:

- Although the results on each selected practices for both the observations and interviews in most cases found to be the best in Champhone district – among the four districts surveyed – they were still below acceptable levels. The survey revealed a serious lack of safe water sources, soap for handwashing purpose and latrines. As a result, there was little experience and knowledge about the purpose of use of these facilities, and soap and detergent available for dishwashing.

- Safe disposal of infants' faeces and anal cleansing by soap were rather neglected practices that future hygiene promotion needs to pay attention to. However, attitudes towards having and using latrines, safe water supplies and soap were very positive. Everyone agreed that "clean hands" is a good idea because it is nice and feels good if our hands are clean. The majority use soap for bathing purposes.
- Awareness about diarrhoea prevention and the related practices especially handwashing, dishwashing, consumption of raw meat, vegetable washing and breastfeeding were found to be very low and occasionally inappropriate. Boiling of drinking water was a very common practice in ta Oi and Samouy districts, while in Champhone and Thapangthong where water from dug-wells and handpumps were already provided, people tended to omit boiling as they thought that water from these types of water sources is ready for consumption.
- Skin infections were found to be rather pervasive (38%) and about one-third of the respondents were unable to mention any ways of prevention. Although the majority stated that they have and use mosquito nets, according to the discussions with village committees malaria and dengue were so common diseases that they were perceived as "part of life".
- As for the primary school sanitation survey: Among the three primary schools which had latrines, water facility and hygiene education there were already a positive experience. Positive impacts were identified. After the initiation of the Primary School Sanitation Programme (PSSP) the villagers have became interested in construction and use of family latrines. Students brought information and IEC materials to their homes, and shared stories with other members in their families. Awareness about the "*three cleans*" was rather high. ("*Three cleans*" is a concept about basic hygiene issues that is traditionally being promoted.) Other lessons learnt were that teachers should not keep the key of the latrines with them because students then cannot have access to them. Ensuring the continuous supply of soap is a problem brought up the school management teams.
- In schools without latrines and water supply, the principals were very interested in launching school hygiene promotion activities, and they had a fairly good understanding of the "*three cleans*" already.

These findings confirms the usefulness of the Primary School Sanitation Programme.

H. Mini Assessment Study on the Use and Sustainability of RWSS Services in the Lao PDR[4]

This study was carried out by means of Participatory Rural Appraisal (PRA) during March to December 2001 with an aim to be participatory, demand responsive, gender-specific and poverty-conscious. Among the participants were six officers from Nam Saat Central and 16 from Provincial Nam saat. 31 people from different provinces and NGOs carried out the survey starting with Training of Trainers (TOT). A total of 38 villages in 8 provinces were assessed. The Nam Saat has supported the sector since 1982. The study was participatory, demand responsive, and genders-specific. It was done by some of the classical Participatory Rural Appraisal (PRA) methods used world-wide – in this case comprising:

i) Community Data Inventory

ii) Community Social Inventory

iii) Review of Service Management

[4] Soutsahhone Chanthaphone and Sanatu Lahiri, Mini Assessment Study On The Use And Sustainability Of RWSS Services in the Lao PDR, 2001.

iv) Transect Walks (Source Management observation with checklists)

- Quality of Work Rating
- Rating of Service by User Groups
- Meeting with un-seved populations, and

v) Focus Group Meetings by Class and Gender measuring

- Effective use (Pocket/Matrix Voting
- Benefits and Value for Costs (Ladder and Card Sorting)
- Division of Contributions (Card Sorting, 100 Seeds)
- Voice and Choice (Pocket Voting /Matrix Voting)

vi) Community Review Assembly

The results show that:

- As mentioned in the UNICEF Situation Analysis: Only 8% of the sampled villages showed a high sustainability score based on local ownership, 53% judged the sustainability to be acceptable and 39% had low ratings.
- Comfort and convenience were perceived as the most important factors of benefit.
- Understanding communities' problems and needs requires quality time and resources. This survey took a trained team of 17 members and almost six months to develop. Although initially expensive, Participatory Assessments are cost effective when trained teams extend their work to other parts of the country or other projects.
- Not explicitly brought up but hinted on: Participatory Evaluation builds capacity among communities so preparatory costs are good long-term investments.
- Nam Saat officers produced positive impacts on design, construction and installation of equipment.
- Financing and management aspects turned out to be generally poor with more than 50% of communities below the sustainability benchmark. Most of them did not have a proper financing system and less than 1/3 had user fees.
- Only 10 communities of 38 had established a WATSAN committee. Women's participation in decision-making and management was very low.
- Consistent use of the protected source was very low, as 3 of 10 households did not always use the source.
- Having a latrine does not necessarily mean that the facility will be effectively used and kept clean. Quality of construction of latrines depends more on hygiene awareness than on household income.
- No significant change had occurred on the disposal of children's faeces, as people still believed that it was harmless.
- Community ownership during all phases of implementation and management is key for sustainability.

I. 2004 end of Project Kap Study Supported by Sida

Analysis of HH interviews and observations is ongoing. According to the village environmetal transect walks, progess is found in terms of water source protection and maintenance which was 61% in 2001 and now at 65.4% . Analysis and the first draft report will be provided by the 7th June 2004.

J. Primary School Sanitation Programme Assessment 2001[5]

This report is a high quality document based on visits to 36 schools randomly selected from two districts in each of 6 provinces. The findings have already been discussed in chapter 6 The Primary School Sanitation Programme.

[5] Unicef WES Section LAO PDR and Nam SAAT The National Centre for Environmental Health and Water Supply, August 2001.

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