Research on Innovative Policies, Practices and Approaches for Improved Sanitation in Laos

Project Report for SNV Laos March 2009











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The National Centre for Environmental Health and Water Supply (commonly known as Nam Saat) under the Ministry of Public Health is the lead sector agency to facilitate and guide the rural water supply and sanitation sector in the Lao People's Democratic Republic (Lao PDR).

This report is part of an assignment entitled "Research on Innovative Policies, Practices and Approaches for Improved Basic Sanitation and Hygiene in Laos PDR". The assignment is part of SNV's capacity development support to Nam Saat. Under this assignment the following three reports were produced:

- 1. Overview of International Organisations Active in the Rural WASH Sector in Laos, January 2009
- 2. Desk Study Report for SNV Laos, March 2009
- 3. Project Report for SNV Laos, March 2009

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Table of Contents

1.	Intr	Introduction		
	1.1	Context	1	
	1.2	Terms of Reference and Objectives	1	
		Methodology	2	
		Focus areas	4	
		Outputs or Deliverables	5	
2.	Stra	ategic Issues in Sanitation and Hygiene	6	
	2.1	Introduction	6	
	2.2	National Sanitation Policy	6	
	2.3	Institutional Framework	7	
	2.4	National Level Capacity	7	
	2.5	Sector Actors	8	
	2.6	National Coordination	8	
	2.7	Decentralisation	9	
	2.8	Coverage	9	
3.	Programmatic Issues in Sanitation and Hygiene			
	3.1	Current Hygiene Promotion Approaches	10	
	3.2	Technologies	13	
	3.3	Total Sanitation?	15	
	3.4	CLTS	16	
	3.5	Subsidy	18	
	3.6	Revolving Funds	19	
	3.7	Drivers of Hygiene and Sanitation: Sanitation Marketing	20	
	3.8	Ecosan (Ecological Sanitation)	23	
	3.9	Schools Sanitation	25	
4.	Considerations for the Future		26	
	4.1	General	26	
	4.2	Sector Challenges	26	
	4.3	Recommendations	27	
Αp _l	pend	ixes		
Anı	pendi	x A: Terms of Reference	30	



IRC International Water and Sanitation Centre is an independent non-profit-organization, based in The Hague, The Netherlands, working as an international knowledge centre in the field of drinking water supply, sanitation, hygiene and related environmental issues in developing countries. The focus of IRC is on:

- providing improved access to and promoting the use of knowledge among sector institutions and stakeholders in order to improve the sustainable delivery of water and sanitation services, and
- the building of capacity of resource centres for the water supply and sanitation sector in developing countries and countries in transition.

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Picture front cover: A latrine in a village near Luang Prabang.

All photos: IRC/Peter Ryan; December 2008.



1. Introduction

1.1 Context

SNV, the Netherlands Development Organisation in Lao PDR contracted IRC International Water and Sanitation Centre to assist it in conducting an assignment entitled "Research on Innovative Policies, Practices and Approaches for Improved Basic Sanitation and Hygiene in Laos PDR"¹.

The work was born out of the apparent slow progress being made in moving towards the attainment in Laos PDR of target 3 (for sanitation) of the Millennium Development Goal #7² Ensure Environmental Sustainability, namely "being to halve the proportion of people without access to basic sanitation by 2015", and in particular, to address how progress could be accelerated, in rural areas of the county. The rural focus arose from the fact that:

- Laos continues to be a predominantly rural society with 73% of the population living in rural areas, (NSC 2005),
- Sanitation issues differ significantly between rural and urban areas in terms of fact that, only 36% of the population in rural areas were reported having access to some form of sanitation in 2005 compared with 83% of the urban population (NSC 2005).
- SNV is engaged with the National Centre of Environmental Health and Water Supply (Nam Saat) under the Department of Hygiene Prevention of the Ministry of Public Health, which is responsible for rural sanitation.

The research project was especially timely given the fact that 2008 was the International Year of Sanitation (IYS), which created a more conducive environment for the conduct of work in the sanitation and hygiene sector.

1.2 Terms of Reference and Objectives

The Terms of Reference (ToR) applied were finalised in mid August 2008 (presented as Appendix A to this report) and key elements, updated where necessary to reflect how the methodology was actually implemented, are shown here.

While the Prime Minister of the Lao PDR declared 2008 the *Lao National Year of Sanitation*, this has not yet been translated into concrete strategies, plans and actions for Lao PDR. Progress in Laos towards achieving the MDG target for sanitation is behind schedule, with the UNICEF/WHO Joint Monitoring Report (JMP-2008)³ indicating that in 2006 some 38% of the rural population had access to improved sanitation, while 56% of the rural population still practice open defecation⁴.

For simplicity: these are referred to as SNV, IRC and the Sanitation Research project, respectively.

http://www.un.org/millenniumgoals/environ.shtml

WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP), 2008, Progress on Drinking Water and Sanitation: Special Focus on Sanitation

http://www.unicef.org/wes/mdgreport/definition.php

As Laos is unlikely to meet the MDG target, it is clear, the ToR stated, "that some sort of revolution in mindset and thinking is necessary" towards gearing up a sanitation and hygiene momentum keeping within the spirit of the MDGs. This will, it continued, require collaborative efforts and actions by all stakeholders, supported by innovative policies, practices and approaches, technologies as well as the allocation, mobilisation and effective use of adequate financial resources. SNV identified the urgent need for research and sharing of knowledge on improved sanitation and hygiene, focusing on innovative policies, practices and technologies in Laos and surrounding countries.

For this purpose, this research was implemented, combining the carrying out of a desk study on innovative and effective sanitation and hygiene programs primarily in South East Asia and a field study on what is known and practiced in Laos and to what extent and effect.

The goal of this research assignment is to contribute to the knowledge base and understanding of innovative sanitation ideas and practices on how to adapt and incorporate these more effectively into sanitation and hygiene components in all rural water supply programs in Laos. This, it was felt, would enable a more aggressive approach towards achieving the MDG target on sanitation by mapping, exploring and developing appropriate policies, practices, approaches and technologies.

The main objective of the work was to identify innovative policies, practices, approaches and technologies, and where possible costs, along with their results for improving sanitation & hygiene (S&H) facilities, practices and programs, which (i) will contribute to ending open defecation, (ii) will achieve key hygienic practices by all, and, (iii) are sustained over time.

The end product arising from the work would be to raise awareness on the sanitation situation in Lao PDR and create a better understanding and trigger actions by sharing innovative ideas for incorporating and/or linking more comprehensive sanitation and hygiene components into all rural water supply programs in the country.

Methodology

Three main activities were envisaged and have been undertaken: a desk study, a support mission to Lao PDR in November-December 2008, and a short second mission in February 2009 to Laos to conduct a workshop to share the findings and conclusions of the research.

Desk study

IRC carried out a desk study of the main literature and data sources on innovative S&H technologies and innovative practices, approaches and programs in Laos, the region and further afield, together with information on costs where available, and effectiveness (evidence based reduction of open defecation, construction and actual use of toilets and adoption of key hygiene practices by different user categories and groups), sustainability and upgrading (of facilities and approaches, with implications for costs and quality).

The method used was to conduct a literature/data search using:

- Bibliographic Databases and overviews
- Organisational information
- Project databases and project sites

The first step was in consultation with SNV to define selection criteria on key topics such as S&H technologies, approaches and programs (e.g. CLTS, SLTS and others) and social marketing for sanitation). A search strategy was then set up and a focussed search (as against a full literature review) was conducted. This is reported in a separate report.⁵

In parallel with the desk study, preparatory work for the first field mission was undertaken by a local consultant. This involved a quick scan (subsequently referred to as *mapping*) of the existing actors involved in sanitation and hygiene activities in Laos. This was designed to provide an overview of who is doing what, where and in particular:

- Which international organisations are actively involved in improving the sanitation and hygiene situation in rural Laos
- What are their geographic operating areas and what is the scale of their work
- What approaches or models are being used

This scan was designed in consultation with IRC and the output was used to plan and organise the first support mission. It also formed the basis of an ongoing mapping of the sector which can be updated and amended as time passes.

Support missions

The IRC project manager conducted a two week visit to Laos in November/December 2008. Supported by the local consultant who had carried out the scan described above, the following activities were carried out:

- The first requirement was to jointly review and finalise the scan. A series of meetings
 were then conducted with a sample of sector stakeholders at the national level (in
 Vientiane). To assess the range of current approaches, identified needs, demands,
 existence and experiences with regards to innovative technologies and approaches.
- A field study was then conducted which built upon the activities which had taken place to date. This took the form of a number of visits to projects/programme sites to observe S&H practices first hand.
 - The selection of projects to visit was based upon the results of the responses to the mapping exercise; so organisations that indicated that they were conducting projects of interest and who were prepared to host a visit to their project location were chosen.
 - The choice was also dictated by a logistical necessity to ensure that travel requirements were reasonable: Laos is not a small country, travel by road is not always easy and distances between remote project locations are very large.



IRC, March 2009, Desk Study Report

In the event, all project locations chosen were in the area north of Vientiane and largely accessible from Luang Prabang.

During the second mission in February 2009, the team, consisting of the local consultant, the IRC staff member, supported by SNV, presented the findings and conclusions from the desk study as well as the field research at a Research Sharing and Awareness Raising Workshop. Owing to the success of the work already in raising awareness and helping to provide a focus for the high motivation of a number of sector players, the post research workshop was also used by UNICEF, Plan International and SNV to discuss the possible setting up of a WASH Sector Technical Working Group.

Focus areas

The focus areas of the inventory and analysis of innovative sanitation and hygiene promotion (S&H) programs were expected to cover:

- The policies and strategies on rural S&H approaches and programs of (I)NGOs, Ministries/Departments, donors, agencies and non-profit associations (Local NGOs).
- Strategies and programs for generating and meeting user demands, with attention to social inclusion and gender.
- The range of S&H technologies and unit costs where known and accessible.
- Institutional arrangements, e.g. staffing, programming, capacity development, management.
- Capacity building on technical, social, economic and health dimensions.
- Scale and sustainability of facilities, programmes and outcomes.
- Cooperation with/integration of local government institutions.
- Environmental implications and risks.
- Financing of facilities and programs.
- Potential for scaling up and its implications.



Outputs or Deliverables

The ToR set out the expected outputs from the work, as follows:

Desk research:

- Concise report on the main S&H approaches and their results.
- Concise presentation for use in the end of research workshop (to be carried out in support mission 2, see below).

First support mission:

- Quick scan or mapping of who is doing what in Laos.
- Concise report on outcome of meetings and field research.
- Preliminary outline for the end of research workshop.

Second support field mission:

- Presentations of outcomes of desk study and field research.
- Production of workshop report.
- Discussions of way forward with concerned agencies.

2. Strategic Issues in Sanitation and Hygiene

2.1 Introduction

In this and the subsequent sections, the main observations in respect of the combined work on the research to date are presented together. This is done under a series of generic headings relating to sanitation and hygiene service provision, as against a chronological presentation of items arising from each element of the work sequentially – which we judge would be less useful to the reader.

This format also allows for selection of topics for discussion in more detail. So, should further details be needed they can be added more easily at the appropriate point. While inevitably the nature of the work involved a considerable degree of judgment being made, general observations and overall conclusions regarding the work are made in the next chapter.

While the ToR for the work leaned towards addressing issues of *approaches* to implementing sanitation and hygiene in rural Laos, such issues can not be considered in a vacuum: the policy and institutional framework must also be addressed and indeed was the area of concern for a number of the agencies that were met during the course of the country visit in late 2008. So, while it is necessary not to over-emphasise these elements - to the detriment of issues under the banner of approaches, they are also considered here. To a degree, the meetings held in week one among main sector players around Vientiane concentrated upon the more strategic issues, while the field visit, naturally, concentrated more upon those which more directly related to service delivery.

Of course, the commentary provided is based upon the opinions of people who were met, and on limited field observations. For this reason they should be considered as *for discussion* at this stage.

2.2 National Sanitation Policy

It is vital for the advancement of sanitation and hygiene service provision in the country that there is a *National Sanitation Policy*; that has been instituted by the relevant line ministry and accepted by the whole Government, in particular the Cabinet, and that there is an effective institutional framework put in place which is adequate for the prevailing national context and that the concerned bodies have the requisite resources to either carry out or support the tasks required.

It is one of the roles of government to provide sector leadership – and the method of expressing this is through a National Policy statement which has been accepted by sector actors and supporters and has been adopted by the Government as a whole. Such a statement should cover overall objectives, advocated methods, clarifications of contested issues, methods of conducting monitoring and evaluation. All sector actors need to feel that they are contributing to the achievement of the National Policy and they need to be able to operate within its boundaries, being able to contribute to its production and evolution, according to the local political and cultural norms.

Those consulted during this research were uniformly of the view that that this is some way off in the Laos context⁶, so there is a need to update/provide clearer policy guidance for rural sanitation. While the National Strategy for the Rural Water Supply and Environmental Health Sector⁷ is intended to provide this in name, in reality this does not provide the necessary framework under which all who are active in the sector can operate with clarity.

Until this position is rectified then it is likely to be the case that actions to provide the required momentum, coordination and harmonisation will be hampered, despite the best efforts of all involved.

There is clearly also some uncertainty regarding the institutional arrangements for overseeing rural sanitation as covered below.

2.3 Institutional Framework

The Ministry of Public Health is responsible (under PM 37/1999) for the direction of rural water supply and environmental hygiene activities, while Nam Saat (the National Centre of Environmental Health and Water Supply) has been delegated responsibility for the management of technical aspects in promoting rural water supply and for urban and rural environmental hygiene throughout Laos.

Nam Saat currently has the mandate for overseeing coordination of bodies and for overseeing implementation of the sanitation MDG but some expressed the view that it does not have the requisite status in the government hierarchy to press ahead to attend to the duties set for it.

A number of people commented about the fact that a new draft Water Supply Law which is being prepared by the Ministry of Public Works and Transport (MPWT) may impact upon (amongst other items) the institutional set up. The World Bank sector review document of 2007⁸ contains a brief discussion of transferring some responsibilities without going into detail about the benefits that may arise.

The institutional framework should be borne out of objectives, set in national policy. In the absence of such policy it might be felt that changing institutional responsibilities is premature, unless it is felt that policy cannot emerge under the current arrangements.

2.4 National Level Capacity

It was commonly stated that Nam Saat is under-resourced at the national level. This research was not intended to review the validity or otherwise of such a view. It was noted however, that Nam Saat has 45 officials at the central level, which is not an insignificant number – although a high rate of turnover has been stated as a problem.

See Section 3.1 of the Desk Study Report which contains a synopsis of a selection of relevant documents in the Laos policy context.

June 2004, Ministry of Health, Lao PDR, National Strategy for the Rural Water Supply and Environmental Health Sector

⁸ 4th August 2007, World Bank, Urban Development Sector Unit, Sustainable Development Department, East Asia and Pacific Region; *Laos Peoples' Democratic Republic, Water Supply and Sanitation Sector Review*

What was also apparent was the multiple calls being made upon a small number of officials to attend functions, field visits and training events all over the country. Perhaps the remit of Nam Saat at the national level also covers the fact that its available capacity at local levels is undoubtedly limited and so national level officials are under pressure to deliver at all levels.

A National Sanitation Policy would clarify the role of all agencies including Nam Saat and create a way of ensuring that officials (of different institutions) are able to carry out the tasks allocated to them. The sector requires that a wide range of functions be executed in a comprehensive and coordinated manner. Functions should as much as possible be undertaken by multiple rather than single stakeholders to avoid monopolies, dependencies and conflicts of interest. Another consideration directing towards this multi-actor approach is that a successful sector would quickly grow too large and complex to be run efficiently by a single (public) actor. National and local governments, the private sector and NGOs can only fruitfully work together on the basis of proper role divisions, suitable institutional arrangements and good governance.

2.5 Sector Actors

While Laos is a 'small country' it appears that there is also only a small number of actors involved in the sanitation sector, the sum of which is a sector which is struggling to make headway.

As noted above, a local consultant conducted a mapping exercise; of who was doing what, where in the WASH sector in Laos, the report of an be accessed either from SNV in Vientiane or on the web 10. What emerged from the report is that, of 42 international NGOs which were contacted, some 21 are active in the WASH sector in Laos. They are operating in around 45% of the (139) Districts in the country, but of course the extent to which each district is "covered" will vary. In most cases INGOs are operating in a minority of villages in each district. Only 16 reported to be operating in the sanitation and hygiene (sub) sector, some of these at a very small scale. The type of intervention they use was reported to vary from PHAST (Participatory Hygiene and Sanitation Transformation), to CLTS but it is known that CLTS is in its infancy in Laos and was not being implemented to any degree at the time the survey was undertaken.

Suffice it to say that the mapping exercise revealed a very limited degree of interventions by external agencies in the sector and so the basis for this research exercise was fully corroborated.¹¹

2.6 National Coordination

It appears that each sanitation actor is working independently of other actors, so in effect, the "sector" is fragmented and uncoordinated. For the objectives of the MDGs to be reached, and for the distant but ultimate objective of full coverage to be achieved, then the whole needs to be greater than the sum of the parts, as recognised in the Paris and Vientiane declarations. What is

SNV Laos, January 2009; Overview of International Organisations Active in the Rural WASH Sector in Laos

http://www.sanimap.net/xoops2/modules/gnavi/index.php?lid=146 - "Sanimap"-the World Sanitation Project Map website link.

The baseline for work in sanitation can be seen by references to documents listed in Section 3.2 of the Desk Study Report.

required is for each agency to operate within a framework for coordinating inputs under a common plan.

A further requirement is for all to share learning and experience about methods and their effectiveness in achieving scale in critical items, and for the inputs of actors to be harmonised to ensure compatibility across programme boundaries.

What is required is either an informal coordination mechanism or a more formal Sector Wide Approach ("SWAP") where these issues can be addressed. There were differing views about whether or not there was a functioning (in)formal arrangement. It appears that historically, such a body did exist but it is clearly moribund now.

During the conduct of this research, it became clear that there is considerable enthusiasm to move forward on setting up some form of improved coordination mechanism, indeed, the afternoon session in the 2nd mission workshop in February was dedicated to discussing the terms of reference for establishing a WASH sector Technical Working Group. This continues to move forward.

2.7 Decentralisation

Laos does not operate a conventional decentralised implementation regime, in which the national government puts policy and funding in place, and/or a combination of local actors (local government, community based organisations, private sector, NGOs conduct local demand stimulation/hygiene promotion, programme planning, implementation and monitoring.

Instead there appears to be a model seemingly made up of "deconcentration" – where national bodies acting locally have responsibility for implementation but the method is based upon what bodies are also present and/or available at the local level. The lack of capacity of Nam Saat at the local level is apparent ¹² and also, in the field visit it was apparent that some Nam Saat staff become key individuals at the local level as they carry out more than one role.

The development and implementation of a National Strategy will assist in setting out more clearly what is generally expected of each sector actor and how, at different levels (village, district provincial national), they can contribute to the process.

2.8 Coverage

As noted previously, the Laos Government and UNICEF/WHO JMP sources indicate that rural sanitation coverage is between 35% to 38%. There was a fair degree of scepticism about these figures among the stakeholders who were consulted, the consensus being that they were unlikely to represent the real picture. While the observations that were made during this research were far from widespread enough to allow comment here, what is clear is that a good and realistic monitoring system is a requirement in moving forward.¹³

At the district level, usually only one district level health staff member is generally assigned to support Nam Saat related duties, covering an average of 72 villages each.

Some papers on project implementation in Laos can be seen by references to documents listed in Section 3.3 of the Desk Study Report.

3. Programmatic Issues in Sanitation and Hygiene

3.1 Current Hygiene Promotion Approaches

Experiences across low income countries shows that the success of sanitation interventions is a function of the hygiene promotion and/or social marketing activities that are incorporated within them. This is because, for community members to adopt hygienic behaviours and practices which are alien or even initially distasteful to them requires changes in knowledge and attitudes towards issues such as defecation, pathogen transmission, hygiene and related issues. So, it is now generally held to be wise not to conduct programmes of intervention in which community members are equipped with sanitary infrastructure solely through a supply driven process. Experience show that this will not lead to sustained use of the facilities provided, community members will be more likely to revert to open defecation over time – so the health improvements and other desired objectives of the interventions will not arise or will diminish ¹⁴.

Over the last two decades or so, a variety of methods to encourage rural community members to adopt safe hygiene behaviours and sanitary practices have evolved, and practitioners have by and large become more adept at amending these to suit local conditions and cultures. Increasingly, these have become based on participatory practices, in principle community members are assisted in a process of deciding for themselves what their key issues and problems are, and consequently making their own decisions about what to do in response.

Such participatory approaches by definition; are dependent upon a combination of motivated and receptive community members on the one hand, and skilled and trained promoters/facilitators, on the other.

During the field visit, the team had the opportunity to visit a number of locations in which hygiene promotion either had been undertaken, or in one instance, was being conducted while the team was present. It is not the purpose of this report to evaluate these programmes but some comments that arise:

 In each of the locations, a local derivative of the Participatory Hygiene and Sanitation Transformation (PHAST) methodology was being or had been used.¹⁵



• The derivative used locally drawn materials to convey the seven step process¹⁶ – these were visible on meeting room walls and were being used in the community training session that the team attended.

There is a wealth of material on this – see for example the references in Section 3.5 of the Desk Study Report.

Source: World Health Organisation: 1998, PHAST step-by-step guide: A participatory approach for the control of diarrhoeal diseases. Available at http://www.who.int/water-sanitation-health/hygiene/envsan/phastep/en

- The application of the methodology appeared to have a more "top down" flavour than is usually the case. From the training session witnessed and in discussions of its application in other locations, it may be the case that the method is being used (in the current Lao context) as an education tool i.e. teachers/mobilisers informing community members about what needs to be done, rather than hygiene promoters and community members working it out for themselves or together using PHAST as a tool to help understanding and for making progress.
- In one location, it was the expressed view of the medical staff in the community clinic that each community member should get a toilet; so a decision was made to create a model village to pursue this aim. Hygiene promotion then followed. While at the time of the visit the level of coverage was high as a consequence of the initiative, it is felt that the supply led approach taken here is likely to lead to problems in the future.
- It may also be the case that the quality of the promotion staff is more variable than is helpful. Almost certainly steps forward can be made in terms of the training of trainers and in terms of helping them (facilitator rather than instructors) to be more aware of the ethos and requirements of participatory approaches. Reference to the discussion of PHAST above, shows that this (current teaching approach) runs counter to the philosophy that is clearly embedded in the PHAST process.

PHAST – a brief introduction 17

PHAST stands for Participatory Hygiene and Sanitation Transformation. It is an approach designed to promote hygiene behaviours, sanitation improvements and community management of water and sanitation facilities using specifically developed participatory techniques.

The underlying basis for the approach is that no lasting change in people's behaviour will occur without health awareness, understanding and believing. Participatory activities are used for community groups to discover for themselves the faecal-oral contamination routes of disease. They then analyse their own hygiene behaviours in the light of this information and plan how to block the contamination routes.

PHAST uses methods and materials that stimulate the participation of women, men and children. It relies heavily both on the training of extension workers and on the development of graphic materials that are modified and adapted to reflect the actual cultural and physical characteristics of communities in a particular area. The PHAST methodology consists of seven steps to community planning for the prevention of diarrhoeal disease.

Being in turn problem identification, problem analysis, planning for solutions, selecting options, planning for new facilities and behaviour change, planning for monitoring and evaluation, and participatory evaluation.

See Section 4.6 in the Desk Study Report for a selection of references on PHAST.



Some of the people that were met during this research expressed a view that rural people in Laos are simply not used to participatory approaches, being more used to being told what to do by figures in authority. If this is the case, then it is all the more important to work on achieving a hygiene promotion environment which overcomes such reticence, for it is certain that instructions to use sanitation will not result in sustainable outcomes of behaviour and health. In the case of the village where the process was led by the medical practitioners,

when the motivation for the very high level of coverage of sanitation facilities in that location was queried, the response was that "nobody refused". It would be fair to point out that it would be a surprise if community members were to turn down the offer of free facilities. It was to early in the process in that particular location to see any negative impact of the process being conducted in this way but the general point is that problems will almost certainly arise when people feel that they are being coerced to have facilities which they will not maintain, and as a result become poorly used and are not cleaned. They will fall into disuse and people will revert to walking into the forest or fields to defecate. Then diarrhoea etc. will return.

In another village it appeared that community members were being equipped with toilets as part of a combined process of water and sanitation service provision. That sounds fine – indeed it is often a standard process to run water and sanitation projects in combination; however, in this instance the combination appeared to be based upon insistence: the community was very keen to get a better water supply and the concerned agency indicated that it could only have that if it had sanitation too. Of course sanitation adoption rates were very high, universal in fact. But the same large question mark looms over effective use and sustainability.

In a third location, when asked what were the biggest challenges in the programme, the response was "to convince people of the need to change behaviour" – indeed this was a common response, it arose in every location. So the *need* is known, it is the *practise* that is the issue: the simple thing when confronted with difficulty in creating behaviour change in a participatory way is to resort to teaching mode, the problem is that this will not result in success in the longer run.

PHAST is successful only when accompanied by high quality sympathetic facilitation, carried out over lengthy periods. There is some evidence that this is an issue that needs to be addressed. Furthermore, PHAST, by definition, focuses upon increasing community members' awareness of the need for sanitation based upon health related issues. There is a strong emergent body of evidence that indicates that many people base their decisions to adopt new behaviours and build sanitation facilities for themselves on the basis of other parameters which are more important to them or about which they are more familiar. For more on this issue, see the "Sanitation Marketing" section below.

One organisation that also took part in the Vientiane based programme of meetings indicated that it based its whole operation on a programme of in-depth participation of the communities it worked with. The concerned organisation is a rural development and anti-poverty NGO. Its method was to engage the community in a full discussion of its problems and this spanned all sectors – food security, housing, education and water & sanitation. Once community members had identified their problems, then methods to address these were derived and the community assisted in putting together packages or projects to meet their objectives. This sounds like an ideal way of participatory appraisal. The issue which arises, from a sanitation perspective, is that if given a blank sheet of paper, average community members will place sanitation very low on their list of priorities – the latent demand (at least in a rural location) is generally very small. This was confirmed as being the standard finding by the representative that the team met.

This is at the heart of the sanitation and hygiene conundrum. Professionals and practitioners are aware that people need to have better health and that a major hurdle is the adoption of good hygiene practices and the usage of sanitation facilities which effectively separate humans from their faeces. So, high quality hygiene promotion is a fundamental prerequisite.

3.2 Technologies

In recent years the focus has shifted somewhat away from sanitation technologies, as the awareness has grown that getting the software (especially hygiene promotion) element right is vital. Despite this, hardware is the element which in the end is used to move forward and make progress/headway, it is the *product*¹⁸. However, it is commonly accepted that if the process is to be truly participatory, as suggested above, and is to result in sustainable behaviour, then the choice of hardware must be made by the individuals /households based on preference and willingness and ability to pay.

So, it was somewhat surprising to note that the technologies on view in the field were uniformly pour flush toilets – see photos herein. The fourth stage in the PHAST process includes choice of sanitation options. At this stage the promoters should provide the community members with a selection of different types of toilet, in the form of a catalogue¹⁹ or a series of photographs (preferably), so that each household, when they are ready, can make its choice about what it wishes to implement, based upon issues such as personal preference and financial resources.



There has been a small amount written about technologies in Laos – see Section 3.4 of the Desk Study Report, while for general references, see Section 4.2 of that Report.

Similar to the MRD/WSP, 2005 Informed Choice Manual for Rural Household Selection developed in Cambodia, and based on an UNICEF initiative in Bangladesh.

It is apparent that the choices offered to community members were limited at best, and it appears that in some cases no choice was made available. In such instances a number of outcomes will arise and a number of comments can be made:

- There is a view that the choice of pour flush toilets, with the ceramic pans that were (with one single exception) the norm in the locations visited, arises because of an "edict" from high level agencies. This was not confirmed by Nam Saat but the indication was confirmed by another party. Either way it is highly important that Nam Saat makes it very clear both to the staff of government agencies at all levels and the public, that a range of appropriate technological options are suitable, available and acceptable. Limiting technology choice in this way is extremely harmful to the prospects for sustainable progress in sanitation in rural Laos.
- Even so, this issue did not appear to be one which was seen as being especially important by the implementing agencies that were encountered in the field. It may even be the case that that there is an implicit consensus that such technology is the way forward among agencies or their staff. When asked is there a cultural imperative which drives this tacit acceptance of pour flush toilets, a satisfactory response was not obtained, despite the question being repeatedly posed.
- It is usual, in the parts of Laos that were visited, for water to be used for anal cleansing, so a pour flush technology is likely to be desirable; indeed in many locations across low income countries such technology is seen by users as being the modern way²⁰. And it is hard to argue with this preference. But there are some good reasons to ensure that the issue is still open for debate in the period following this Report:
 - O Pour flush technology is expensive in comparison to other toilet types; the poorer members of communities will in all probability not be able to afford such technology (see also the Subsidy discussion below) and so will not become sanitation adopters. In this way the decision to "impose" or tacitly accept as normal, pour flush toilets, will result in the exclusion of poorer members of communities unless support is provided (e.g. subsidies).
 - o If pour flush is seen as the hardware of choice, then how will increasing demand for sanitation impact upon the requirement for increasing demand for water, especially in Laos's water scarce areas, and especially as the likely impact of climate change may be to exacerbate water shortages in some locations?
 - o In a related issue, will greater demand for water further increase the toll on those, usually women and girls, whose chore it is to collect water from improved water points, or from rivers and ponds or other unsafe sources?
 - In one of the projects that was visited, it was clear that community members did not want a sanitation intervention until or unless they had received a gravity fed water supply.

It is not clear if this preference is universal across Laos. Clearly many of those who practise open defecation do not carry a water container with them when they go to the field or other private place. It would be helpful to generate a sector wide understanding of this preference (or otherwise) to inform future decision making.

One final issue arising re the choice of pour flush technology, is that the pits will fill. While the pits are lined with concrete rings, liquids will seep away into the rock or soil at the bottom of the pit, leaving the more solid residue to build up over time. Depending upon the number of users, the depth and volume of the pit and the permeability/porosity of the surrounding rock/soil, the pit will fill over a period of two or three years. When the pit is full, householders must either empty it and continue to use it, dig a new pit, or return to open defecation. This requirement needs to be clarified in the early project process (it appeared that in two instances at least, this had not been done and was becoming a major issue). A pit emptying process (which is usually technically difficult in confined and remote locations) needs to be put in place and finances to cover the cost of this operation need to be saved.

When these issues are considered alongside the discussion below about subsidy and affordability, and the issue of a lack of "ownership" that arises from choices made by others, then it appears that limiting technology choice – however it has come to pass - is a hazardous path down which to tread.

3.3 Total Sanitation?

It is known that the benefits to communities are maximised when all of its members practise safe sanitation, further that if only a small minority continue to practise open defecation (OD) then the negative impact of this upon community members is indiscriminate – they can get sick even if their own facilities and practices are perfect - as the slogan in Bangladesh has it: "Are you eating your neighbour's shit?" ²¹

So, it is becoming generally accepted that service delivery in a sanitation context should be carried out using a holistic method which has as its principle aim "total sanitation", i.e. the eradication of Open Defecation in the project area. Such an acknowledgment forms the basis of national programmes in many countries — especially in South Asia. The Indian sanitation programme is named the *Total Sanitation Campaign* (TSC) while that of Bangladesh has as its cornerstone a drive to facilitate the adoption of an approach called *Community Led Total Sanitation* (CLTS – see below)²².

In the project areas visited by this research this was not necessarily the aim, indeed the concept of total sanitation as the above specifically defined objective was generally not understood. However, in the one location where 100% coverage was said to have been achieved this was the outcome dictated by the project implementation agency, as noted above. In other locations the aim in this regard was to improve coverage levels as much as possible.

It should be noted that total sanitation needs to be written into policy as the aim of all sanitation projects and programmes in Laos – the aim must be Open Defecation Free (ODF) locations.

See Section 4.7 in the Desk Study Report for a selection of references on CLTS.

For a comparison of total sanitation experiences in South Asia, see Robinson AJ (2005) - reviewed in the Desk Study Report in Section 4.7.

3.4 CLTS

Community Led Total Sanitation is an approach to rural sanitation which has attracted much attention in recent years. It has had much success attributed to it and has, as a result, an increasing cadre of adherents. While seeking to avoid stating that CLTS is the "silver bullet" that rural sanitation needs, it is nonetheless clear that many have very high hopes for it.

CLTS has not yet been implemented in Laos, although there is a degree of enthusiasm for it and moves are being made to trial it in some locations (e.g. Houaphan). So, the basis for the enthusiasm lies in its implementation elsewhere and upon evidence from other locations. It is fair to say that sanitation professionals have wanted a success story, the recent history of sanitation is marked by slow progress, learning from mixed experience and a fair slice of disappointment; all the more reason then to ensure that if CLTS is to be introduced, it is done on the basis of reasoned analysis and accurate evidence.

CLTS - a brief introduction

CLTS is an approach which seeks to trigger a community to mobilise to change the behaviours of all its members, so that they eradicate open defecation.

The "ignition process" is facilitated by external mobilisers, its basis being in facilitating a growing realisation among community members of the extent of contamination of their local environment by human faeces. Transect walks ("walk of shame") and calculations of the amount of faeces that are dumped locally lead to a collective disgust which leads community members to wish to adopt sanitation. They are usually offered locally appropriate choice of sanitation options (hardware) and then build their own toilets according to their own means. Those who cannot afford to do so or who are unable to, are often assisted so as to ensure total sanitation. Those who are still slow to adopt can be targeted by various methods including identification of their open defecation (OD) habits.

CLTS is characterised as having no subsidy for hardware, the theory being that if the hygiene promotion (ignition) aspect is done properly, then people will be fully motivated to use their own resources to construct their facility. This is an area of some discussion, see the Subsidy section below.

While questions remain to be answered in respect of the claims made for the amount of OD areas that have been achieved and, more to the point, are sustained, there is little doubt that in some locations CLTS has great potential. As noted in the recent CLTS Handbook²³, the method through which CLTS is implemented is a matter for local choice, although there is also some disquiet by its promoters about the impact of major deviation from the key elements which characterise the approach, especially if the CLTS name is still associated with it.

In the context of Laos it is worth noting some of the factors which are seen as being pre-requisites for its successful implementation and, conversely, factors which may negatively impact upon it.

Kamal Kar and Robert Chambers (2008) *Handbook on Community-Led Total Sanitation*. Institute of Development Studies and Plan - reviewed in the Desk Study Report in Section 4.7.

Paraphrasing and summarising from the *Handbook*, some key ones are:

Favourable conditions	Unfavourable conditions	Comment re Laos	
Small remote settlements	Larger settlements in proximity to towns	Much of rural Laos is characterised by smaller rural settlements	
Lack of cover in the surrounding locality (no privacy for OD)	Much surrounding cover providing privacy in OD	Low population density in Laos may inhibit CLTS, as may the extent of forest coverage in mountainous areas.	
Visibly filthy (faeces) conditions	Relatively clean conditions	Lao people are known for their cleanliness – this stereotype may not be accurate.	
High incidence of diarrhoeal illnesses and child mortality	Low incidence of diarrhoeal illness and child mortality	A reported 660 maternal deaths per 100,000 live births ²⁴ , this rate is extremely high.	
Dynamic local leadership	Weak local leadership	Location specific	
Presence of active community groups or culture where this can be triggered; women have voice in community.	Absence of active community groups and conditions in which women have little or no "voice"	The political history of Laos may not be conducive to the formation of active community groups ??? Is women's voice traditionally strong or weak?	
Pool of (potentially) motivated facilitators	Culture of facilitation	The limited exposure to this topic would indicate that there are possibly issues to confront here	
No history/presence of sanitation programmes which feature hardware subsidy	History or presence of subsidised sanitation programmes.	Sanitation programmes in Laos appear generally to be subsidised.	
Soil is stable and easy to dig (for low cost latrines)	Unstable soil and/or hard rock – difficult to dig.	A variety of conditions exist in different parts of the country.	
Water table is low (and so not polluted by "low tech" latrine contents	High water table – possibility of contamination by faecal matter	Water table likely to be high along the Mekong floodplain at certain times of the year. No problems though in more mountainous areas.	

The summary above indicates a range of positives and negatives in relation to the possibility of successful implementation of CLTS in Laos. A serious drawback would almost certainly be the relatively low population density that exists in most rural parts of the country, allied to the fact that deforestation has not yet become so serious that sites for OD are diminishing. Another complicating factor is the apparent extent of subsidised programme approaches coupled with the fact that most government and development actors belief that progress can not be made without some sort of support to the 'poor' villagers. "Lao are too poor and can not afford to build a latrine" yet this includes people who have a motorbike, a mobile telephone, a television etc.

This is a comment that can be made in respect of all attempts to increase sanitation coverage in rural Laos, but is particularly meaningful in the context of its potential to undermine the ignition process at the centre of CLTS. There is a need for caution in developing CLTS in Laos.

UNICEF Childinfo database – see http://www.childinfo.org/maternal mortality countrydata.php (accessed March 2009).

3.5 Subsidy

As discussed immediately above, the issue of the absence of a hardware subsidy is held by its protagonists to be central to the successful introduction of CLTS but in fact it is a thorny issue across the entire sanitation spectrum. The generally accepted basis is that if people are sufficiently motivated through adequate hygiene promotion, then they will build or install whatever facility they can afford. And, in the case of total sanitation conditions, if they are the poorest, then their family and/or neighbours will help them to do so, in order that they too can benefit from the eradication of open defecation that is the envisaged outcome of total sanitation.

It is also worth noting that, at least in this context, a subsidy is defined as a measure which reduces the total cost of the "project" to the user. So it can comprise a financial subsidy ²⁶ or the provision of materials at reduced or zero cost.

As with most complex issues, the adoption of a binary position is rarely going to be helpful, there will always be cases on the margins. So, for example, in communities which are in very sandy conditions, a hand dug pit, however shallow will collapse during the rains — so a pit lining ring is required. There may not be the necessary vegetation to make a bamboo or equivalent lining, so cement may be needed. But if the community is very distant from a market town then the whole process becomes very expensive. So, the people, or at least some of them, in this community, simply cannot afford to create their own facility, no matter how well their hygiene promotion has succeeded in motivating them. In such instances, judicious and targeted subsidy may be required in order to create the conditions for total sanitation.

In urban areas, the cost of accessing sanitation can be so high that it poses different challenges for many people to pay for the costs of certain technologies. But appropriate alternatives to address such challenges need to be developed and considered (based on 'polluter pays principles' such as deferred payments, incorporation into utility bills (water and power) etc). However for public institutional such as hospitals and schools sanitation subsidy is almost always required.

This yields an apparent discrepancy between the stances in favour of subsidy in urban areas and generally anti them in rural areas. To be as clear as possible:

- A subsidy to rural householders can mask ineffective hygiene promotion. The often
 relatively low cost of materials and technologies means that subsidy is not required where
 householders are fully motivated. Where these costs are excessive then subsidy may be
 needed even if the hygiene promotion has been admirable and effective.
- Urban householders generally need little or no hygiene promotion to help them to understand that they need sanitation facilities – they are often acutely aware of this. But

See for example Pretus L D *et al* 2008, referenced in section 4.4 of the Desk Study Report which provides commentary on different types of subsidy in practise. For a general coverage of financing including on subsidy, see Sijbesma C *et al* 2008, referenced in the same section of the Desk Study Report.

For example, in the Total Sanitation Campaign in India, poor households are eligible for a cash subsidy to cover the cost of materials. Critics of "TSC" have observed that this has resulted in the relatively wealthy obtaining subsidies for which they were not eligible and corruption through local officials creaming off the money, in addition to a lack of sustainability as discussed in the main text above.

the cost of sanitation technologies is often way beyond what they can afford and so a subsidy is usually vital.

So, the accepted position in the sanitation sector is that hardware subsidy for rural households should be avoided if at all possible and this should be explicitly expressed in any National Policy statement. It is not acceptable to have a situation where one village receives a subsidy and an adjacent one does not – programmes in other countries have often been undermined by a lack of such harmonisation.

Of the communities that were visited in the field during this research, it appeared that in two cases subsidies were given and in the other two they were not. In both of the subsidised cases this was carried out through materials being donated by the relevant implementing agency, in the form of steel rods, cement, ceramic pans/bowls (as pictured to the right), while the community donated labour and provided the walling and roofing material for the toilets. Experience shows that there are likely to be some potentially serious issues of sustainability in these locations as a result of the combination of choices made.



The experience of a significant reduction in diarrhoeal diseases²⁷ that rightly was the source of so much pride in one of the villages is likely to be only temporary. When asked what the villagers will do if the toilets fill (see the remarks on pit filling in the Technology section above), the answer was – "maybe they will go back to the forest".

3.6 Revolving Funds

Where the projects did not offer a subsidy for the domestic sanitation hardware but still offered a high cost technology in the form of pour flush toilets, then clearly many households were not going to be in a position to afford to pay. So, in these cases a revolving fund was set up. In essence this is a zero interest loan to households, repayable over an agreed period. In general, the sponsoring agency provides a sum of money as the initial pot from which community members can borrow, as repayments come in, they can be circulated back out to other households, hence "revolving". The sponsors will generally bear the programmatic and administrative costs.

For clarity, in one of the projects, the location was so remote that the sponsoring organisation met the transport costs of bringing ceramic pans/bowls to the community. Strictly speaking this is a subsidy but it is likely that the community may not have been aware of this, so it is debateable whether or not the no subsidy advocates may feel that sustainability would be being undermined in this instance!

As stated in meetings held in that community.

It was notable that in the two locations where revolving funds were used reported coverage was very high – this may also have been a function of the fact that the projects were still recent. This will have been due at least in part to the quality of the recent hygiene promotion, as discussed previously but it is almost certain that reducing the call on finances of the villagers will have made a contribution to this. In one instance current coverage was reported at 90%, in the other it was 85%.

There is an area of concern however. In both cases repayments of the revolving loan have yet to be made. In one location, it had been agreed that the loan would be repaid in one instalment following the harvest, at the time when the fiancés of the villagers were at their most conducive, while in the other location the scheme had only recently started and so it was too early to tell whether or not repayments, scheduled to take place over a period of up to 16 months, would be made at the required rate.

Because of the technology choice, the amounts in each case were substantial. In one case it was 700,00 Kip (about \$80), which over 16 months is some 44,000 per month – some five dollars a month where people are not earning more than a dollar or two a day. In the other case, where the transport costs were being met by the implementer, the fund gave 350,000 Kip per household. The disparity in total costs (given that the sanitation technology is the same in the two instances) is likely to be accounted for by different costs and treatment of the costs arising from the water supply programme that accompanied each of these sanitation projects.

In the final analysis, while it is necessary to write these various aspects separately, in practise they are all linked. If the hygiene promotion is not done well, if a technology choice is not available, and if people need to take out large loans as a result, this is a recipe for a lack of uptake and/or unsustainability. There are varying grounds for concern on this topic in all the locations visited as part of this research.

3.7 Drivers of Hygiene and Sanitation: Sanitation Marketing

The main outcome for practitioners of better hygiene and sanitation should be the improved health and livelihoods of community members, especially arising from reduced diarrhoeal diseases, health expenditure and consequential reduced rates of child mortality. Unsurprisingly, this led field agencies to develop a range of intervention methods through which the awareness of the respective health impacts of bad and improving hygiene and sanitation could be increased. The PHAST methodology, prevalent in the project locations visited by this research, is the most developed example of this, and is consequently used across a number of low income countries both in the region and globally, with good results in many cases (as has been noted, this is dependent to a large extent on the quality of the hygiene promotion facilitation).

It has become clear, however, in recent years, that while health impact is a main outcome, it is not necessarily this parameter which is of most importance to community members when choosing either to adopt, or conversely not to adopt, safe sanitation. In short health is an outcome but not necessarily the driver, of safe sanitation.

Seminal research by Mimi Jenkins, for her PhD dissertation at the London School of Hygiene and Tropical Medicine (LSHTM), is often quoted as the basis of the interest in what has become known as "sanitation marketing". Her work in this area²⁸ indicates that issues such as privacy, safety (especially for women who otherwise face sexual assault or attack by animals when having to go out of the village area to defecate under the cover of darkness), status and economic issues are of more importance than the public health issues that are the focus of the "interventionist" approaches. Developing the theme with Steve Sugden (also of the LSHTM) she provided corroboration of this theme in later publications. Here is Table 1 from the Jenkins and Sugden's input for the UNDP, Human Development Report 2006²⁹.

Inventory of Stated Benefits of Improved Sanitation from the Private vs. Public Perspectives

Given these set of factors, it is argued, then instead of treating community members as potential "sanitation beneficiaries", it makes a good deal of sense to look at these factors as consumer preferences and adopt a business or market orientated approach through which these demands can be met. In the same paper, they indicate that, consequently, the desired end product of toilet acquisition, use and maintenance will only arise when three elements are present:

- 1. A locally appropriate institutional and policy environment
- 2. User demand
- 3. A supply chain

After her PhD, this area of work was further developed. See for example:

- 1. Jenkins, M.W. and S. Sugden (2006) *Rethinking Sanitation Lessons and Innovation for Sustainability and Success in the New Millennium.* Background Paper for Human Development Report 2006. UNDP New York, January 2006. Accessed via:
 - http://hdr.undp.org/en/reports/global/hdr2006/papers/Jenkins%20and%20Sugden.pdf January 2009
- 2. Jenkins, M.W., and V. Curtis (2005) "Achieving the 'good life': Why some people want latrines in rural Benin." Social Science and Medicine, 61, 2446-2459. See Section 4.5 of the Desk Study Report for more detail.
- Jenkins, M.W. and S. Sugden (2006) op cit

The first of these is self explanatory, and in the case of this research can be seen to have been covered under the heading of strategic issues, in the previous chapter.

In the case of the second, the assumption has been made in the areas visited in Laos (and in very many similar locations visited by IRC) that hygiene promotion is sufficient to ensure that user demand is present, whether done through the PHAST methodology or within a CLTS project, or in other ways. Jenkins and Sugden feel – and there are many who now share this view³⁰ – that this is insufficient, and that greater attention needs to be given to the wider range of elements that drive and conversely act as barriers to adoption of sanitation; a selection of these from the same reference are as follows:

Constraints Faced by Households in Adopting Sanitation Improvements						
Lack of awareness and misunderstandings about latrines' function	Perceived safety issues					
Technical complexity of construction, materials, expertise/advice	Difficulty in accessing skilled labour.					
 Perceived poor design and performance of existing latrines 	Cost, lack of credit, difficulty saving enough money					
Unsuitable soil conditions	Limited space					
Extended family interaction problems, social norms and disapproval	Perceived benefits of open defecation for soil fertilisation and privacy					
Water table/soil conditions	Tenancy issues					
 Cultural factors restricting design which are not conventionally observed 	 Lack of reliable product information and technical services 					
Lack of desirable products	Lack of credible suppliers					
Other competing priorities (e.g., TV, Karaoke set, furniture)	Lack of awareness of value of S&H, access to information limited to the literate					
Lack of knowledge on how to construct and maintain pit latrines	Nomadic pastoralism where permanent facilities are of no use					

Within this listing are factors relating to the third of the items above, that of the presence of a (viable) supply chain to meet the demand that is created. This did not appear to be a feature of the areas of Laos that were visited in this research.

In essence, sanitation marketing is based upon the concept of matching demand and supply (most other approaches concentrate on the demand side only), and in more detail on the following³¹:

- 1) using a commercial approach for the production and delivery of sanitation products and services to expand the supply chain and market.
- 2) engaging and building up the private sector to do the production and delivery so that this is financially and institutionally sustainable. This includes understanding the constraints that prevent the supply side working effectively and working at removing these constraints
- 3) coupling this with the application of consumer science and the use of marketing techniques and promotion to generate new demand

For example, research (unpublished) carried out comprehensively across WaterAid's country programmes in 2006 showed a similar set of drivers and barriers to adoption.

³¹ See Section 4.5 of the Desk Study Report for references on sanitation marketing.

The criticism often voiced about this approach is that it is all very well to use a market orientated approach such as this in some locations, especially where supply chains can be set up and perhaps where disposable income is generally sufficient to engage in consumption, but how will the poor be able to engage in this "market"? It is not sufficient to retort that current processes do not serve the poor well either, even if it has some truth in it. What may be more helpful in this context is to try and take the positives from the sanitation marketing approach in the Laos context, a point returned to in the next section of this report.

3.8 Ecosan (Ecological Sanitation)

An approach to sanitation which is receiving a lot of international attention, but which apparently is little seen (if at all) in Laos (to date) is Ecosan and it is worth bringing into the equation for possible future consideration and implementation³².

Ecosan is an abbreviation for Ecological Sanitation; it is not so much a technology as an approach, the basis being that urine and faeces are not simply waste products that need to be disposed of but are resources that have value. This characterisation is increasingly seen as being applicable not just as a possibility for communities in low income countries but is also stirring in high income countries where there is a more advanced mind set in relation to ecological issues.

To quote from a factsheet on the subject: "Ecological sanitation can be viewed as a four-step process dealing with human excreta: source-separation (separating urine and faeces), containment, sanitisation and recycling. The objective is to protect human health and the environment while reducing the use of water in sanitation systems and recycling nutrients to help reduce the need for artificial fertilizers in agriculture. Ecosan represents a conceptual shift in the relationship between people and the environment; it is built on the necessary link between people and soil" 33.

There are now numerous technical options to implement Ecosan, they are set out in the literature that is growing around the topic. In the same way as other sanitation approaches, it requires skilled and contextually appropriate hygiene promotion before its introduction. Of course, there are additional elements; these are the topics of handling human faeces and eating food which has been grown using composted human faeces.

Both of these need to be dealt with clearly. On the issue of handling faeces, if the material has been left for a sufficient time for it to become pathogen free (an item of ongoing discussion and concern) then handling is simple and relatively free of disgust – depending upon society and personal preferences. If this has not been the case, then revulsion will arise and problems will follow. The design of Ecosan toilets is such that this should not be an issue in most applications, although this may lead to higher construction costs than otherwise would be the case. One item that is worth mentioning here is the fact that diverted urine can be very useful: as urine is rich in nutrients (actually it is significantly richer than the faeces content) – it is *generally* sterile as well.

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See Section 4.3 of the Desk Study Report for references on EcoSan.

The main features of ecological sanitation – Ecosanres Factsheet No 2, Stockholm Environment Institute, May 2008. Accessed at http://www.ecosanres.org/pdf files/ESR-factsheet-02.pdf, January 2009.

So, urine diverting technology is available but brings with it a need for a different handling process.

The second issue is that of eating food which has been produced using human faeces derived compost. This is a matter for individual choice and wider cultural mores. But it is notable that Ecosan has been successful in cultures where cleanliness is valued very highly, for example in Muslim communities³⁴. In terms of its application in Laos, it is noteworthy that Ecosan has been in continuous use in parts of China for centuries and has been re-documented in Vietnam recently.

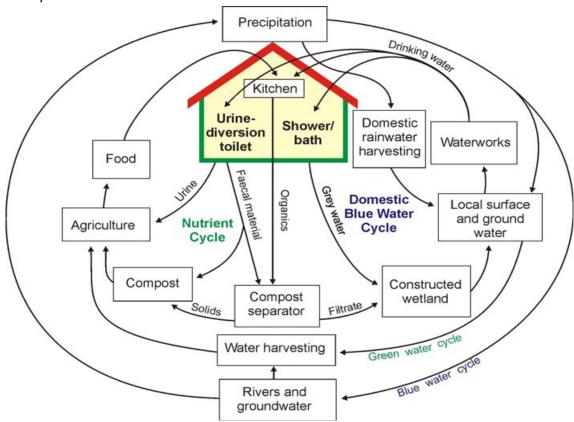


Figure 1 - Complete household Ecosan and eco-water use from Ecosanres factsheet 2, see footnote 32.

In general terms, two parameters can be seen to be favourable for the possible introduction of Ecosan:

1. Recycling is the vogue issue for many groups at the moment but this may not include the target group in Laos – rural communities. Ecosan brings better agricultural productivity, giving nutrient benefits to those who eat foods produced through its use. So the first benefit arises for villagers who produce more and better quality food for their own household consumption. Additionally, recycling bring additional economic benefits, as users are able to sell or barter the surplus food produced. This is a key selling point. Of course, if the produce of Ecosan is sold, then the buyer may not need to know the conditions in which it was grown.

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See for example Avizit Reaz Quazi and Refatul Islam *The reuse of human excreta in Bangladesh*; in Beyond Construction – Use by All; WaterAid and IRC, 2008.

2. Where water shortage is experienced then recycling urine (following dilution usually at a ratio of 1:5) for food production has obvious benefits. As the technology of "choice" in Laos at the moment appears to be pour flush toilets there would undoubtedly be some challenges in introducing alternative technologies/approaches, perhaps more so in the case of Ecosan. But should water shortages start to be felt, perhaps as climate change advances, then its value could increase.

3.9 Schools Sanitation

While the main focus of this research has been on domestic sanitation, the linkage with schools sanitation needs to be made and retained. The main reasons are that children learn early (and are open to learning) and their knowledge is retained for life – the sooner they start the better; they are great educators of their peers and of their parents and wider family³⁵.

The second main factor is that children are more likely to go to a school where sanitation facilities are provided, in sufficient number, with appropriate separation of boys and girls, (and are provided for teachers), and where all are maintained to an adequate standard. The issue of girls' attendance at schools, particularly adolescent girls, is a vital objective of sanitation practitioners, and is its own specialist subject.

As far as this research is concerned, it is merely worth pointing out that there is much to be gained by having a unified front, linking domestic and schools sanitation – conversely, doing one and not the other will undermine the overall objective. In our limited consideration of the topic within this research, it became clear that while the relevant Ministry was aware of the importance of sanitation in schools and has a resource (the "Blue Box") to use in schools, its application appears to be patchy at best.

A national schools sanitation programme is necessary and should form part of any future National Sanitation Policy. There must be a comprehensive programme linking the latrine facilities with: (i) appropriate curriculum; (ii) trained teachers; (iii) hand washing facilities; and (iv) making drinking water available. Recent provincial WASH sector assessments in Laos have shown that this integrated approach is not in existence at present.

Synopses of local and global references on school sanitation can be found in Section 3.6 of the Desk Study Report.

4. Considerations for the Future

4.1 General

The objective of this research was to identify innovative approaches to sanitation which might yield benefits in the context of rural communities in Laos. A desk study has highlighted approaches, both "conventional" and innovative focusing primarily on the region of South East Asia and to a lesser extent on South Asia and elsewhere, and the mapping work for the research has provided the first snapshot of who is doing what in Laos.

The use of the word "innovative" has a clear implication in built that for progress to be made in Laos, something new has to be done in country. So, the field visits, carried out for this research, was an attempt to find if such innovation was already present within the country. If innovative means something which is new to the sector at large that is not being done, then it would appear that there is little or no innovation. But this would be a tall order. If it is (more reasonably) taken to mean that processes which are new *to Laos* are being undertaken, then the answer is that there are some examples. The revolving fund seen in two field locations is a particular case in point.

It is, however, the case, that the sanitation sector in Laos is at an early stage of development. It can be characterised at the moment as being one in which there is a need for a considerable development of strategic vision and leadership, a National Sanitation Policy and a plan of action to achieve it are vital requirements. The actors that there are in the sector seem largely to be independently doing their own thing, so learning is difficult in such a fragmented environment. There is however, great enthusiasm among those present, and an awareness that coherence needs to be built, and new approaches tried.

Before looking at some headline issues as suggestions for sector players to consider moving forward, it is necessary to highlight the main elements that present themselves as items that need to be confronted.

4.2 Sector Challenges

Four of these are notable:

- It is now established practise that sanitation interventions should seek total sanitation –
 i.e. the eradication of open defecation, the creation of open defecation free locations.
 Whether or not this means CLTS is a completely separate issue, this is returned to below.
- 2. There is an apparent bias towards pour flush latrines, whether this derives from some form of official directive or is an assumption by practitioners is unclear. Either (or any) way, this has a fundamental impact in terms of the cost of facilities for users, and the fact that it (may) create debt among communities, the requirement for a pit emptying culture and infrastructure; the water resource issue that arises. There is a related possibility of difficulties should water resources become more constrained. There is a potentially serious implication, in overall terms, about the sustainability of such an approach.

Technology choice for users has become a mantra of practitioners for very good reasons and as a result of some very hard lessons, often sadly unlearnt.

- 3. There appears to be a uniformity of approach to hygiene promotion in the PHAST (participatory hygiene and sanitation transformation) method. This is an acceptable promotion method but there is a feeling that the quality, and perhaps the depth, of the PHAST implementation might need to be looked at. The two issues here are:
 - a. The quality of facilitators and the work they do: the outcome of hygiene promotion depends upon the deployment of sufficiently well trained and well motivated facilitators for sufficient time.
 - b. The reality of community participation: hygiene promotion requires the real participation, as equals, of community members, from all the disparate sections of the community, including; the poorest, those with disabilities, those from ethnic or other minorities and, especially, women. It is not a process of education it was specifically renamed promotion, to get away from a vision of classroom formats. It was noted that the people of Laos are perhaps not used to this sort of involvement; all the more reason to double the efforts to get it right!
- 4. There is a considerable degree of unanimity in the sector that household level subsidy for sanitation hardware is generally undesirable some say at all, many others say if it can be avoided. The issue of subsidy needs to be considered in the Laos context in detail, decisions need to be made and agreed, and they need to be adopted as part of National Sanitation Policy. The absence/minimisation of household subsidy does not absolve government and donors from their financial obligations to the sector, it means diverting their financial resources to where they are most needed be it policy development, programmatic support, the conduct of hygiene promotion, the building of technical, financial and administrative capacity among local government, support for developing the private sector. So the issue of subsidy needs also to be considered against the broader backdrop of sector financing.

4.3 Recommendations

On the basis of these findings, there are a number of specific recommendations, set out in this section. These were presented and discussed at the end of research workshop, and it is expected that these will form a major input to future activity in the sector.

- 1. There is an urgent need to develop an explicit National Sanitation Policy, strategy and plan for its implementation. The potential steps to do this are known from other countries, there is no need to reinvent this particular wheel.
- 2. There is a need to create a coherent sector in which the whole is greater than the sum of its parts. The joining of sector actors in whatever sector bodies that are developed in the immediate period ahead should be considered to be a requirement of sector participation.
- 3. The sector should seek, and this is fundamental for what can be described as a sector in its infancy, to become a learning sector. There is so much more to be gained when the impact and challenges of work done by each is the subject of analysis and consideration

by the whole. This is a fundamental of whatever new sector mechanisms that will be developed.

- 4. The PHAST method builds upon creating awareness of a need for better hygiene and sanitation in communities by concentrating upon the health benefits of new behaviour as compared with the harm of continuing the prevailing behaviour. It is known that the average man and woman are more concerned with issues such as dignity, safety and status, and that it is often not easy for them to make the faeces-health connection.
 - It is suggested therefore that, using action research in other locations as a model or guide, research is conducted to identify the drivers and barriers to sanitation uptake in a range of Lao contexts. This research should underpin all subsequent hygiene promotion efforts, whether that is in the form of amending PHAST for local usage, through CLTS, or a more direct (social) marketing approach or a combination of approaches. There is no need to go back to a blank sheet of paper; as noted in the text (see Page 20 and following pages) Mimi Jenkins and her colleague Steve Sugden have written extensively on the topic, so the general principles are established. What is needed is to understand the relative importance of these and others that arise *in the Laos context*. So it is recommended that some research is carried out in different contexts of these parameters and that the results are shared across the entire sector in the country.
- 5. As observed, experience in and commitment to basic community facilitation/participatory skills and approaches are needed as a foundation on which PHAST and CLTS approaches can be built. Therefore training of trainers should be consistently conducted to confront the shortage of skilled practitioners in the field of WASH to cover the demand of implementers adequately.
- 6. New approaches need to be implemented, firstly as action research (otherwise known as "learning by doing"), before rolling out appropriately, or discarding where required. Specifically:
 - a. The enthusiasm to implement CLTS needs to be channelled into trials, perhaps at some scale if that is the appetite of sector actors³⁶ and if they have the resources. But it is suggested that a number of areas be selected representing different locational types (based on topographical conditions), ranges of income, ethnic composition, and, importantly, at different densities of population. The CLTS handbook, quoted earlier in this report, gives a good handle regarding areas of suitability and of challenges.
 - b. Ecosan should be trialled³⁷, also in a range of conditions; this should be preceded by a specific learning exercise to understand how Ecosan is conducted generally and in the region, and what can be learned from its successes and failures in Vietnam, southern PRC and other relevant locations.

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Concern Worldwide is piloting CLTS in two districts in Houaphan province, and WSP is supporting pilots in Champasak and Sekong provinces.

WWF has a small scale Ecosan pilot outside Vientiane.

Appendixes

Appendix A: Terms of Reference

Research on Innovative Policies, Practices and Approaches for Improved Basic Sanitation and Hygiene in Lao PDR

Terms of Reference, 18th August 2008

Introduction

To put the spotlight on sanitation the UN General Assembly declared the 2008 the *International Year of Sanitation*. The goal is to raise awareness and to accelerate progress towards the MDG target to reduce by half the proportion of the 2.6 billion people without access to basic sanitation by 2015. Subsequently, on World Water Day, 22 March 2008, the Prime Minister of the Lao PDR declared 2008 the *Lao National Year of Sanitation*. Unfortunately these well intended declarations have to date not been translated in concrete strategies, plans and actions for Lao PDR.

Progress in the Lao PDR towards achieving the MDG target for sanitation is behind schedule. The results from the National Census (2005) indicated that only 35% of the rural population may have access to sanitation, while the recently launched UNICEF/WHO Joint Monitoring Report (JMP-2008)³⁸ indicates that in 2006 some 38% of the rural population had access to improved sanitation.

Facility/location	Urban	Rural	Total
Improved	87	38	48
Shared	5	1	2
Unimproved	2	5	4
Open defecation	6	56	46

As a consequence of the continued lack of prioritisation for sanitation combined with the absence of adequate funding and appropriate mechanisms for the promotion of sanitation and hygiene it is highly unlikely that Lao PDR will meet the MDG targets. It is clear that some sort of revolution in mindset and thinking is necessary towards gearing up a sanitation and hygiene momentum keeping within the spirit of the MDGs. This will require collaborative efforts and actions by all stakeholders, supported by innovative policies, practices and approaches, technologies as well as the allocation, mobilisation and effective use of adequate financial resources.

In a Visioning Workshop in March 2008, SNV Lao PDR and its sector client the National Centre of Environmental Health and Water Supply (Nam Saat) under the Department of Hygiene Prevention of the Ministry of Public Health, agreed that more needs to be done to improve the sanitation situation by integrating sanitation and hygiene promotion activities either to be implemented on there own or more synergistically and effectively into water supply programs.

SNV Lao PDR identified the need for research and sharing of knowledge on improved basic sanitation and hygiene, focusing on innovative policies, practices and technologies already existing in the Lao PDR and surrounding countries. For this purpose, some additional financial resources were mobilised to carry out a desk study on innovative and effective sanitation and hygiene programs in South and South East Asia and a field study on what is known and practiced in Lao PDR and to what extent and effect.

WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP), 2008, <u>Progress on Drinking Water and Sanitation: Special Focus on Sanitation</u>

The main purpose of this research assignment is to contribute to the knowledge base and understanding of innovative sanitation ideas and practices on how to adapt and incorporate these more effectively into sanitation and hygiene components in all rural water supply programs in the Lao PDR. And to kick start a more aggressive approach towards achieving the MDG target on sanitation by mapping, exploring and developing appropriate policies, practices and approaches, and technologies.

Objectives

The overall objective of the research and sharing assignment is to form a broad base to accelerate progress towards the MDG sanitation target in Laos PDR through kick starting a more aggressive approach towards improved sanitation and hygiene.

Specific objectives of this assignment are:

- Identify innovative policies, practices, approaches and technologies (such as those in CLTS, SLTS and social marketing programs to contribute to improved sanitation and hygiene), along with their results for improving sanitation & hygiene (S&H) facilities, practices and programs, which end open defecation, achieve key hygienic practices by all and are sustained over time.
- 2. Identify and share information about the costs and cost-effectiveness of these approaches and their potential and requirements for application at scale ('scaling up with quality').
- Raise awareness on the sanitation situation in Lao PDR and create a better understanding and trigger actions by sharing innovative ideas for incorporating and/or linking more comprehensive sanitation and hygiene components into all rural water supply programs in Lao PDR.

Activities

Two main activities are envisaged: a desk study and two support missions to Lao PDR. These are described as follows:

Desk study

IRC will carry out a desk study of the main literature and data sources on innovative S&H technologies and innovative practices, approaches and programs³⁹ such as CLTS, SLTS and social marketing and other focusing primarily on the region of South East Asia and to a lesser extent on South Asia and elsewhere, together with information on costs where these are available (both unit costs and support costs⁴⁰), effectiveness (evidence based reduction of open defecation, construction and actual use of toilets and adoption of key hygiene practices by different user categories and groups) and sustainability and upgrading (of facilities and approaches, with implications for costs and quality).

The consultants will conduct a literature/data search using:

- a. Bibliographic Databases and overviews
- b. Organisational information
- c. Project databases and project sites

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A recent article in capacity org explains that the assumption that ideas can be transferred as 'best practice' from one place to another seriously underestimates the complexity of aid work. Apparently most learning initiatives have tried to scan globally and *apply* locally, rather than scanning globally and *reinventing* locally. Therefore, best practice needs to be replaced with *good principles* that can provide the context for local reinvention, inspired by global learning.

It is necessary to come up with some sort of 'impact costs' in terms of actual cost of approaches and projects/programs per beneficiary or per household impacted upon.

The following activities are envisaged within the desk study:

- 1. Define selection criteria together with SNV staff:
 - a. S&H technologies and approaches and programs such as CLTS, SLTS and others
 - b. Social marketing in the region of South East Asia and South Asia
- 2. Set up a search strategy
- 3. Collect information: doing a focused search (as against an extensive literature review)
- 4. Analyse and structure the collected information
- 5. Prepare a report describing the main sanitation and hygiene technologies, approaches and their results for review by SNV (see also focus areas below). This will require translation into Lao language, to be arranged by SNV.
- 6. Produce a re-package in a PowerPoint presentation for use in workshop. This will require translation into Lao language, to be arranged by SNV.

Support missions

Supported by a national consultant, an IRC staff member with specialisation on innovative S&H approaches will carry out two support missions in Laos PDR. These missions will be preceded by activities carried out in country, with minor inputs provided by IRC.

- Prior to the *first mission* the national consultant, supported by the SNV WASH advisors, will carry out a quick scan or inventory of what is happening in Lao PDR concerning sanitation and hygiene. This inventory should provide insight in who is doing what, and in particular:
 - ⇒ Which organisations are actively involved in improving the sanitation and hygiene situation in Lao PDR
 - ⇒ What are their geographic operating areas and what is their scale of work
 - ⇒ What approaches or models are being used and what is the organisation's perception on their effectiveness and successfulness
 - ⇒ What are the underlying principles that have led to their success

The quick scan will be designed in close consultation with IRC to ensure that information relevant to the overall objectives of this assignment is obtained. The expected output is an overview of who is doing what in the area of sanitation and hygiene promotion in the Lao PDR, and this overview will be used as a basis for planning and organising the first support mission.

- During the *first mission* the team, consisting of the national consultant and the IRC staff member, supported by one SNV WASH advisor, will carry out the following activities:
 - 1. Review and finalise the quick scan or inventory overview.
 - 2. Meet with key stakeholders at national level to assess current approaches and needs, demands, existence and experiences with regard to innovative technologies and approaches.
 - 3. Design, plan and conduct a field study on the basis of the quick scan and in consultation with representatives of Nam Saat Central and SNV. The study will focus on the most promising organisations and their projects/programs. Meetings will be conducted with key staff of these selected organisations and a number of project/programme visits will be made if deemed necessary or beneficial to observe innovative S&H practices first hand. The findings will be analysed and presented to a 'Sounding Group' consisting of representatives from Nam Saat and SNV and possibly other sector actors.
 - 4. Prepare a workshop outline in consultation with Nam Saat central representatives and SNV for the research sharing and awareness raising workshop.
- During the *second mission* the team, consisting of the national consultant and the IRC staff member, supported by one SNV WASH advisor, will present the findings and conclusions from the desk study as well as the field research at the Research Sharing and Awareness Raising Workshop. It is expected that immediately after the workshop, representatives of Nam Saat Central, SNV and IRC will sit together and brainstorm about possible follow up actions.

It is expected that the proposed innovative joint S&H Action-Learning Programme will be taken up sometime in 2009 after the completion of this assignment. This specific activity fits in SNV Lao PDR's capacity development services in the context of SNV's WASH strategic components of sector coordination, multi-stakeholder platforms and knowledge brokering support. This activity could be taken up jointly by SNV and IRC as part of the envisaged regional partnership arrangement. Preliminary discussions to this effect were held with Rene van Lieshout, IRC Senior Programme Officer, in March 2008.

Focus areas

The proposed focus areas of the inventory and analysis of innovative S&H programs are:

- For Governmental and institutional ((I)NGOs, Ministries/Departments, donors, non-profit association (NPAs)⁴¹) policies and strategies on innovative S&H approaches and programs with a principle focus on rural sanitation;
- ➤ Strategies and programs⁴² for generating and meeting user demands (e.g. CLTS/SLTS as done in Bangladesh, Pakistan, Nepal and India, TSC in India, social marketing as done in Vietnam and with sanitary marts by UNICEF and Governments of Bangladesh & India), with attention to social inclusion and gender;
- ➤ Range of innovative S&H technologies and unit costs where known and accessible (e.g. sanitation ladders of Lao PDR, VERC)⁴³;
- Institutional arrangements, e.g. staffing, programming, capacity development, management, with costs (as much as possible);
- ➤ Capacity building materials and methods on technical, social, economic and health dimensions (as e.g. for CLTS in Indonesian districts with support of WSP Jakarta);
- > Scale and sustainability of facilities (e.g. durability during monsoons), programs and programme outcomes (e.g. end of open defecation and levels of continued use after the withdrawal/end of inputs by support agencies);
- Cooperation with/integration of local government institutions;
- ➤ Environmental implications and risks (e.g. protection and preservation of groundwater quality, end-disposal of faeces, flood risks)
- Financing of facilities and programs;
- Potential for scaling up, and its implications.

The formal designation of Local NGO used in Lao PDR.

The research on innovative policies, practices and technologies should focus as much as possible on South East Asia and to a lesser extent on South Asia and elsewhere to ensure that models can be adapted or reinvented more easily to the Lao context. There are a number of project/programs in Cambodia that could be included in the desk study (e.g. CLTS by UNICEF, Plan Cambodia, Concern Worldwide and others; ADB financed Tonle Sap RWSS Project; EU financed ECOSORN project in North West Cambodia; etc. Vietnam: World Bank financed Red River Delta RWSS Project; ADB financed International Development Enterprises project on social marketing of sanitation in the central coastal area; etc. Myanmar might be a good place to consider as well as the 2008 Joint Monitoring Report shows on page 20 that Myanmar is on the top of the list of countries making the most rapid progress in people gaining access to improved sanitation.

It appears that there is no need to reinvent the wheel here as a lot of similar work is done by other institutions in the region (e.g. World Bank in Cambodia) which could be used.

Outputs or Deliverables

1. Desk research:

- o Concise report on the main S&H approaches and their results
- o Concise presentation (PPT) for use in the research sharing and awareness raising workshop in Lao PDR (to be carried out in support mission 2, see below)

2. First support mission:

- o Quick scan or inventory overview of who is doing what in Lao PDR
- o Concise report on outcome of meetings and field research
- o Preliminary outline for a Research Sharing and Awareness Raising workshop

3. Second support field mission:

- o Presentations of outcomes of desk study and field research
- o Production of workshop report
- o Discussions of way forward with concerned agencies