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2009-01-23

Verzoeken te behandelen voor: 06-02-2009 **Ingediend door:** 0003 **Datum en tijd**
van indienen: 23-01-2009 14:38 **Datum plaatsen:** 23-01-2009 14:38 **Type instelling:**
overige (non-profit) **Ingediend via:** NCC **Geplaatst bij:** WWW

Titelisn: 96875 **PPN:** 239520939

International journal of environmental health research

Gewenst: 2003-00-00 **Deel:** 13 **Nummer:** suppl.1 **Elektronisch leveren(EMAIL)**
(EMAIL) **Email adres:** westerhof@irc.nl

Auteur: Lahiri, S **Titel van artikel:** Water, sanitation and hygiene **Pagina's:** s107-s114

WWW Vol. 7(1997)-15(2005)
FORUM CLOSED STACKS NN40793 Vol. 1(1991)-11(2001)

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Water, sanitation and hygiene: a situation analysis paper for Lao PDR

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The Lao People's Democratic Republic (Lao PDR) is located in the Greater Mekong sub-region in East Asia, neighbouring with China, Cambodia, Myanmar, Thailand and Vietnam, with a land area of 236,800 square kilometres, and an average population density of 22 persons per square kilometre. The population of Lao PDR is 5.5 million with 49 ethnic groups. Most of the population is located in rural areas, with a significant number of the neediest villages in remote localities. In the past decade, there have been many positive developments in the rural water supply and sanitation (RWSS) sector. Despite improved coverage in latrine and water supply services, health remains a serious problem. The improved services were often not sustained or poorly maintained, while hygiene received inadequate attention. In Lao PDR, as in many other countries, the provision of a safe and reliable water supply and appropriate sanitation services, based on sustainable approaches, therefore, remains a challenge. This paper will provide an overview of the Lao PDR's RWSS Sector. Special emphasis is placed on actual field level application of informed choices for water supply, sanitation and hygiene awareness.

Keywords: Lao PDR; rural water supply and sanitation sector; latrine; hygiene promotion; community; health.

Introduction

Lao People's Democratic Republic (Lao PDR) is located in the Greater Mekong Region, a landlocked country bordering with Cambodia, China, Myanmar, Thailand and Vietnam. The current population is 5.2 million with a growth rate of 2.8%, which means that on the present trend it will double by 2020. The country is now ranked 131 out of 161 countries in the United Nations Development Programme Human Development Index. Coverage of rural water supply reaches 60%, with rural sanitation serving 36% of the population. Taking this into account, Lao PDR aims to remove itself from the list as a least developed country by the year 2020. Achieving this goal is synonymous with eradication of mass poverty by ensuring economic growth with equity, while safeguarding the social, cultural, economic and political identity. The goal is to achieve 90% coverage of rural water supply and 70% rural sanitation coverage by 2020.

In the past decade there were many positive developments in the rural water supply and sanitation (RWSS) sector in the Lao PDR. However, despite improved latrine and water supply coverage, health remains a serious problem, with malaria, diarrhoea and respiratory infections heading the list of causes of mortality among children under 5 years of age.

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In an effort to address weaknesses as well as to achieve the 2020 goal, the National Centre for Environmental Health and Water Supply of the Ministry of Health, responsible for the rural water supply and sanitation sector in Lao PDR, Nam Saat, devised a sector strategy in 1997 to pave the way for increased hygiene promotion, hygiene awareness opportunities and improved RWSS services. The RWSS sector strategy is a catalyst for a transition from top-down approaches to bottom-up, demand-driven methods. The strategy includes focus on community-led participatory hygiene promotion as a priority (SSGNF 1997). From experiences in the field, Nam Saat has also realised that to focus only on technical issues is ineffective for the sustainability of water supply and sanitation systems without hygiene promotion. As a result, behaviour change and increased awareness on hygiene promotion became a key area of focus for Nam Saat.

Translating RWSS strategy into practice

In its attempt to translate RWSS strategy into practice, while focusing on hygiene awareness and promotion, Nam Saat teamed up with its partners to map out the hygiene situation in Lao PDR (Situation Report 2001). A series of dialogues and consultations found that while Nam Saat Central oversaw hygiene promotion, many different government departments were also involved in hygiene. Nam Saat Central has been involved in the following activities:

- Provincial and district staff training on hygiene promotion and education methods.
- Overseeing and co-ordinating the RWSS sector.
- Monitoring sector partners' hygiene activities at provincial and district levels.
- Organising flow of information through regular meetings and sector forums.
- Reviewing and planning hygiene promotion approaches.
- Producing materials, manuals and Information-Education-Communication (IEC) for field use.

In co-operation with Nam Saat, the Ministry of Education is responsible for school hygiene education and sanitation and also holds teacher-training courses. The Lao Women's Union works mainly at the village level, supporting the use of facilities, co-ordinating assessments of needs with Nam Saat and conducting hygiene education seminars. The Lao Youth Union and local village level Water and Sanitation Committees have started using 'the Champion'—a Lao youth group—to help spread hygiene messages to their communities. The Centre for Information and Education on Health (CIEH) produces posters, pamphlets and other educational materials that are widely used by other departments. CIEH also uses mass media for awareness campaigns. Its mandate covers many activities, with hygiene being a major component of its work. All these activities are funded either by government or external support agencies and non-government organisations (NGOs).

An attempt was also made to map out the existing hygiene materials used in the Nam Saat Programme/RWSS sector. Nam Saat collected all the available materials prepared by NGOs, such as Ecoles Sans Frontieres, Save the Children Australia, CIDSE, Champa Lao, Norwegian Church Aid and local training organisations, such as PADETC. Also on display were materials produced by Nam Saat in co-operation with the Rural Development Committee, Urban Research Institute, Ministry of Education, Lao Women's Union and Department of Hygiene with support from UNICEF, Sida, WSP-EAP, WB, WHO and JICA. The outcome of the mapping exercise is as shown in Table 1.

Table 1. Hygiene materials used in the Nam Saat Programme/RWSS sector

<i>Type of material</i>	<i>Availability in Lao PDR</i>
Centrally produced Information-Education-Communication (IEC) materials – pamphlets, booklets, games, posters	Yes (most of hygiene materials produced in Lao PDR fall under this category)
Informed choice kit for RWSS services	Yes (recently developed and being piloted in spearhead provinces)
IEC materials specifically designed for ethnic minorities and special localities	Yes / limited (developed by a few NGOs for specific purposes)
Hygiene promotion materials for school sanitation programme	Yes (developed centrally for all schools in Lao PDR and by NGOs for project support)
IEC materials developed for community dialogue	Yes (recently developed and being piloted in spearhead provinces)
Informed choice for hygiene promotion	No materials developed to date
Training materials for participatory monitoring and evaluation of sustainability, effective use and impact of behaviour changes	No materials developed to date

Reaching consensus on hygiene promotion

All partners agreed on the following three key points during the Hygiene Sector Forum workshop in Vientiane in January 2001:

- (1) **Positioning:** Hygiene promotion in Lao PDR is to be considered an instrument for initiating demand-responsive approaches in the RWSS, which includes promoting measurable and sustainable improvements in key hygiene behaviours and effective use of services by all.
- (2) **Place in the RWSS Programme:** Hygiene has been fully incorporated into all steps of the national RWSS Programme.
- (3) **Action implications:** There is a need to define and agree on the roles of major stakeholders, their capacity building requirements and types of supporting materials needed for the sector (Situation Report 2001).

Menu of hygiene promotion options at programme level

Provinces and districts are considering using a hygiene ladder to promote better hygiene, similar to the use of water supply and a sanitation ladder at community level. Rather than a list of prescribed options, this hygiene ladder provides a range of options for communities to choose any combination from the options. These are:

- Option 1: Hygiene education.
- Option 2: Mass media campaign.
- Option 3a: School sanitation (education).
- Option 3b: School sanitation (promotion).
- Option 4a: Participatory hygiene promotion.
- Option 4b: Social marketing.

The first three options are educational, based on the premise that knowledge is the first step toward behaviour change. The focus of options 1–3a is on health and disease transmission. This type of approach is very common in Lao PDR. As the menu progresses, the level of community involvement and input increases. Options 3b–4b are methods that use substantial time in the comprehension of the motivating factors for adoption of good hygiene behaviour. The last three options are not necessarily focused solely on health. Instead, they may use motivators, such as prestige, comfort and personal safety to ‘market’ good hygiene behaviour to the target population. Usually, options 1–3a can reach wider audiences with less effective long-term behaviour change, whereas options 3b–4b initially reach smaller audiences but affect long-term behaviour change to a greater extent. Both short- and long-term approaches can be effective in Lao PDR (Lahiri and Chanthaphone 2002).

Looking back to go forward

In response to the workshop consensus, Nam Saat, in consultation with sector partners, conducted an assessment on the past RWSS activities focusing on use and sustainability (Study Report 2002). The study was carried out using the methodology for participatory assessment. This participatory method is poverty and gender sensitive, and helps actual beneficiaries assess their own improved services and hygiene situation (Dayal *et al.* 2000). The study was conducted in 38 villages (one village has not yet started the latrine construction, therefore, the number of villages assessed was 37) from eight provinces that received hygiene, sanitation and water supply support from various external support agencies and NGOs.

For latrine assessment, the wealth of each household was stratified through a mapping exercise to identify rich, middle-income and poor households. The findings confirmed some beliefs and dismissed others. Household income is a major factor behind the level of access to latrines. Poor households in each of the 37 villages clearly have less access to latrines than their wealthier neighbours. This leads to two issues that need to be tackled: cost and transport. The latrines observed were mainly the pour–flush type with a concrete lining, which makes it difficult for poorer households to afford. The problem of transporting materials for construction of concrete rings is another factor. Thus, by offering various types of lining and construction options there was the potential for the situation to improve. Subsequently, the study team tried to compare access and effective use (Fig. 1).

Do families that have a latrine use it in order to obtain health benefits associated with its construction? To answer this question the study examined family use by age and gender groups, both before and after the latrines were built. For conditions of health safety, families need to dispose of excreta effectively. Most households (83%) with latrines in the 37 villages claimed to use them regularly. Access and effective use of latrines, therefore, seems to be improving at the same time. Along with the frequency of latrine use, it is also crucial to observe whether latrines are kept clean, otherwise latrines can create health problems rather than preventing them. To check the hygienic quality of latrines, the assessment team randomly examined 8–10 latrines in each village. The assessment found that about one-third of the villages had above average scores (> 7.5 points/10). Two-thirds of the villages had moderate scores (5–7.5) and only six villages failed to score the minimum 5 points required for effective use. For most people in the countryside, use of latrines is a relatively new habit. The scores suggested that the quality and maintenance of latrines was improving along with use.

Considering groups of women and men separately, the participants in the villages expressed their perceptions about the benefits of latrines through a participatory exercise. For both

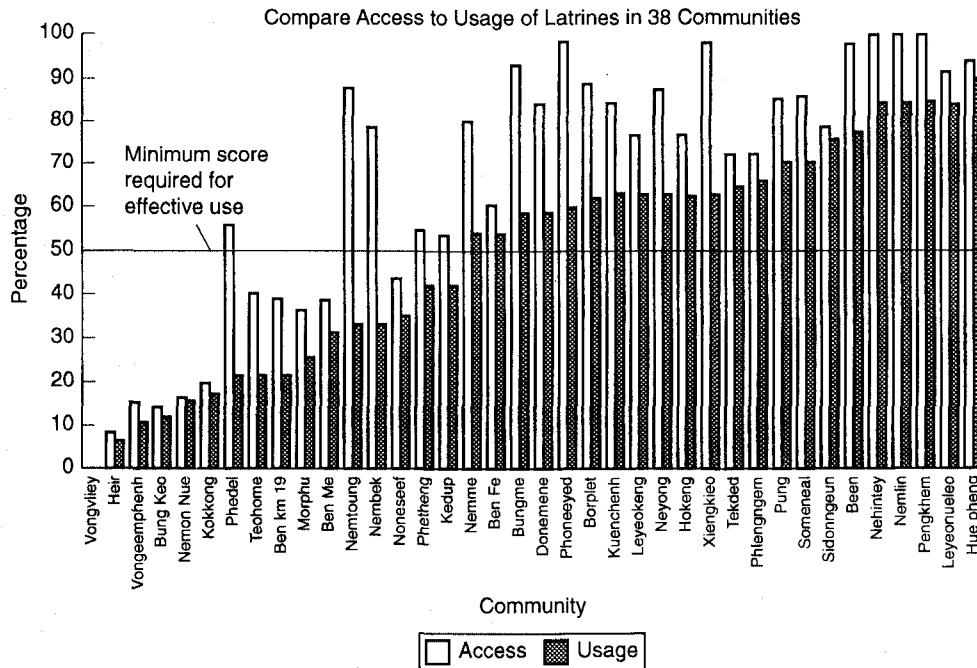


Fig. 1. Access to sanitation usage in thirty-eight villages.

women and men the most significant benefits were: (1) comfort and convenience, (2) disease protection and health concerns, and (3) cleanliness and hygiene. The high score for convenience and comfort is noteworthy, as it is often an overlooked aspect. This new information has provided guidelines to Nam Saat and its sector partners and led to more effective promotional materials for sanitation.

The assessment reviewed personal defecation habits of household members in a discreet manner. Through an envelope voting system, participants gave their opinions about the following questions:

- Before you had latrines, where did different household members (old men, old women, working men, working women, boys, girls, and babies) in your household defecate?
- Now that latrines are installed where do you go to defecate?

The cumulative results from all 37 villages showed that before latrine improvements were made the majority of villagers chose unhealthy and inadequate places for disposal, such as in forest areas, bushes, or by riversides, paddy fields or within the home compound (Fig. 2). Some had dug holes or dry pit latrines. After latrine improvements were made, the frequency of unhealthy disposal of excreta decreased by more than half in all categories. Hygienic habits were seen to improve after latrine construction.

The exception seems to be the disposal of baby faeces, where people have yet to change their bad habits in respect to how baby faeces are disposed of, perhaps because it is still regarded as less harmful than that of adults.

How community sanitation behaviour changes over time

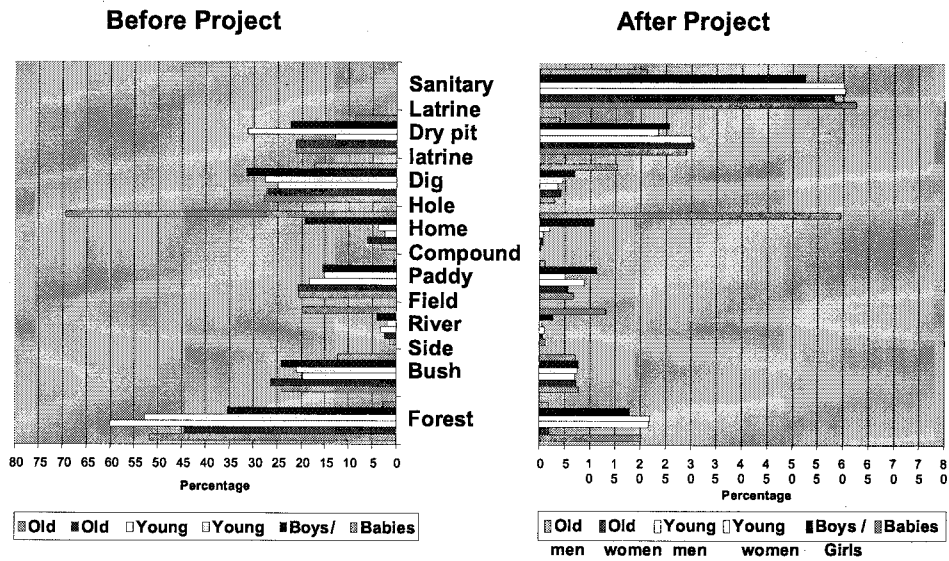


Fig. 2. Change in community sanitation over a given period of time.

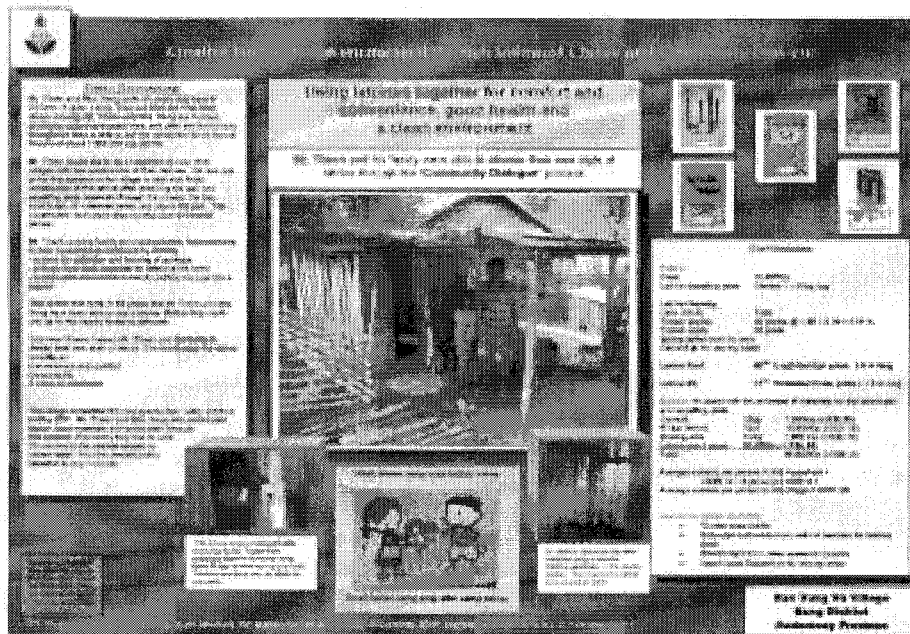


Fig. 3. Village hygiene promotion material: designed by the family in consultation with the provincial HPT.

Application of community-based village promotion

Based on the findings, Nam Saat initiated a community-based hygiene promotion (Lamaningao 2002). Previously, all hygiene promotion materials were produced at central level. Often the pictures used in hygiene promotion were in cartoon form, but many remote communities had not been exposed to this form of communication tool before. Thus, Nam Saat facilitated a provincial team to explore ways of developing innovative methodologies for promoting hygiene awareness. The users themselves designed the hygiene promotional materials for dissemination locally. For instance, the hygiene promotion team (HPT) at district and provincial level discussed with the community how to select a local 'champion' as a person or a family that had shown an example of best practice within their community. A photograph image was then used in the poster at a local level only. The local 'champion' is also given the opportunity to join the government's HPT for future activities in other villages as well (Fig. 3).

Simultaneously, Nam Saat provincial team in Luang Namtha and Bokeo provinces, supported by advisers from an external support agency, applied a way of showcasing hygiene promotional activities. They used a community dialogue approach to develop a 'showcase village'. In order to add innovation to the sanitation and hygiene promotion process, the team used multimedia equipment to facilitate community discussion and raise hygiene awareness. The team used these images to highlight the existing positive and negative interventions to changing these behaviours, and the approach is also becoming popular in other provinces. Therefore, in addition to promoting community-based hygiene awareness activities, Nam Saat simultaneously helped villages to improve their understanding by showing images of daily life. Selection of the existing village volunteers and local advocates to promote this process has begun.

Conclusion

The study on RWSS services and innovations through hygiene awareness programmes opened a new chapter in Lao PDR's hygiene promotion effort. This was the first time that the government examined past services on the use and sustainability of its hygiene and sanitation programme. In the past, only the number of facilities in communities was tracked. With appropriate facilitation, the assessment process has clearly shown that users can directly quantify the use, sustainability and benefits of sanitation interventions.

The findings from recent hygiene initiatives are noteworthy for future interventions on hygiene and sanitation promotion. Overall, the assessment found that behaviour change in the use of latrines depended on:

- A person's own willingness to use the facility.
- Access to latrines.
- Personal perception about excreta and its links to disease.

Other findings:

- Examination of the effective use and quality of latrines reveals valuable information about specific local hygiene behaviour changes.
- Simply counting the number of latrines in each community precludes the qualitative aspects of latrine improvements—having a latrine does not necessarily mean that the owner will effectively use the facility and keep it clean.

- In villages where latrines are self-financed, poorer households are less likely to be able to construct or improve sanitation facilities.
- The quality of construction, maintenance and use are not always dependent on the level of household income.
- Comfort and convenience are by far the main benefits for latrine users. When latrines are close to the home and workspace (i.e. fields, markets, and shops), people use them.
- No significant behaviour change has occurred regarding the disposal of baby faeces. Regardless of latrine facilities, families still hold the perception that baby faeces are harmless. This continues to pose a threat to hygiene and requires special attention.
- Promotion efforts should be based on those desired benefits and presented in an innovative manner. At the same time, local resources at a fundamental level should be identified and used as focal points for promotion work.

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