WATER AND SANITATION PROGRAM: TECHNICAL PAPER

Global Scaling Up Sanitation Project

Case Study on Sustainability of Rural Sanitation Marketing in Vietnam

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The Water and Sanitation Program is a multi-donor partnership administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services.



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This Technical Paper is one in a series of knowledge products designed to showcase project findings, assessments, and lessons learned in the Global Scaling Up Sanitation Project. This paper is conceived as a work in progress to encourage the exchange of ideas about development issues. For more information please email Christine Sijbesma, Truong Xuan Truong, and Jacqueline Devine at wsp@worldbank.org or visit our website at www.wsp.org.

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Executive Summary

Background

From 2003 to 2006, a rural pilot project was conducted in Vietnam with technical support from the non-governmental organization (NGO) International Development Enterprises (IDE) and funding from Danish International Development Assistance (DANIDA). The project tested whether a sanitation marketing approach could improve rural access to sanitary toilets in 30 communes in six districts of the coastal provinces of Thanh Hoa and Quang Nam.

The project trained promotion teams consisting of local health workers, Vietnam Women's Union leaders, and village heads, as well as small providers (shopkeepers, producers, and masons). These teams, in turn, promoted sanitary toilets and helped households to build the type of toilets they wanted and could afford. The pilot project trained over 2,000 government staff, Women's Union leaders, small entrepreneurs, and trainers. After 3.5 years, over 15,000 households had gained access to a sanitary toilet in the pilot area out of 32,000 households targeted. This number was 2.5 times the increase achieved under a conventional sanitation program conducted in the three preceding years. Average access grew from 16% to 46%.

Three years after the end of the pilot program, WSP contracted IRC/ADCOM to design and carry out a case study to investigate the sustainability of the rural sanitation marketing approach. The main research question was whether the outputs and outcomes had been sustained after the external support had ended. Other research questions were used to determine if the approach had spread to neighboring communes ("spill-over effect"), if the districts had extended the approach district-wide ("scaling-up effect"), and if there were signs of spontaneous marketing developments ("parallel development"). The case study was conducted in a purposively selected sample of eight communes in four districts of the two provinces. Four matched communes that did not participate in the pilot but were located in other parts of the same districts served as a comparative group.

Research for the case study took place between June and August 2009. Local sanitation statistics were collected in all study communes. Semi-structured interviews were held

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with the promoters, providers, and some local government authorities. Interviews were held with district and provincial authorities and at a national level with the NGOs, national authorities, and donors involved in rural sanitation. With the help of participatory tools, focus group discussions were held with 61 householders who had built sanitary toilets or upgraded their unsanitary ones, and 60 householders who had either no toilet or a still unsanitary one. Finally, the study team visited a very small and nonrandom sample of installed toilets to observe the quality of construction and hygiene as per the national standards of the Ministry of Health.

Case Study Findings

The trend of increased access to sanitary toilets was sustained. Average access, which in the study sample was 15% in 2003 (one percentage point lower than in the pilot area as a whole), grew to 44% in 2006 and to 59% by 2008. The average annual growth rate of 7.5% equaled that of the pilot project as a whole, and in the study villages was even one percentage point higher.

Growth in three of the comparative communes was much lower. In one it was even negative, as the population grew more rapidly than sanitation access. In the fourth no statistics could be obtained.

At the end of the pilot project, 16% of the poor households had built a sanitary toilet, while their proportion in the pilot population was 19%. However, the poor-specific monitoring was not sustained. In the case study it was impossible to get commune statistics specified for poor and non-poor households. It was only possible to note that overall, access to sanitary toilets increased steadily while the percentage of poor households remained the same or varied over time.

All but one promoter had continued to promote sanitation along with their job duties, albeit at a lower intensity and with fewer methods. The promoters had not received new promotional materials and two-thirds said they had run out of pilot project brochures. Interest in toilets had reportedly remained high, especially among women. However, the sustainability of promotion may drop in the future because local women leaders and village heads change after three or four years and training for their successors was not institutionalized.

Local providers had continued to develop their services and customer base and other entrepreneurs had joined when they saw the growing sanitation demand. All but one provider had continued to expand their range of goods and services. Septic tanks were the most popular option with both customers and providers, raising a concern for the future as it is common practice for villagers to empty full tanks directly into the environment.

Virtually all entrepreneurs gave some form of credit to customers and some shops also gave credit to masons. On average, one-third of the customers bought on credit. There were no agreements or collateral; the decision was based on acquaintance and trust.

Three-quarters of the providers said that they now had more customers and over half reported a greater business volume. Two-thirds said that they made more profit and had higher incomes in the last three years. However, all also provided other goods and services and worked seasonally and often part-time in sanitation: the toilet business alone was not enough to live on.

Although trained in marketing as part of the pilot, only half of the providers had continued this practice. None had developed their own leaflets or catalogs. To attract new business, they relied on local relationships, networks, and their reputation. As part of the pilot, IDE had encouraged the formation of provider networks to cooperate on production, procurement, sales, transport, construction, and after-sales services. These networks were sustained and new ones had been formed.

Satisfaction with services and toilets had remained high among householders. The few dissatisfied householders reported clogging, allegedly due to using regular paper instead of toilet paper, and poor quality construction. The small number of toilets observed and built either during or since the pilot all met the standards of Ministry of Health.

Those householders without a toilet cited financial concerns as the primary reasons they had not installed or upgraded.

They reported sharing a toilet with relatives or neighbors or practicing open defecation. However, many said that in the latter case they used the "cat method" (i.e., defecate in a small hole and then cover the excreta with soil).

Local authorities in the study communes, districts, and provinces varied in their willingness and actions to sustain rural sanitation marketing after the pilot. In some communes, the authorities continued the sanitation steering committees, annual sanitation plans, toilet loans, etc. without going back to subsidizing toilets. Other communes had accepted NGO projects with toilet subsidies since the pilot, but said that this was not a real solution as project duration was short and the number of households that could be assisted was small. The supportive commune governments had been convinced by the good results of the pilot. The less supportive authorities were doubtful about being able to convert the poor and hard-core open defecators, or faced other more urgent constraints-no land title deeds, industrial solid waste problems, and absence of a proper cemetery.

In three of the four study districts (no interview could be conducted in the fourth) the district authorities had sustained their positive attitudes. They praised the project strategy; the demand for district commitment; the organization of the program; the professionalization of the communication approach; the increase in awareness, knowledge and skills of promoters, providers, and consumers; the capacities developed in the private sector; the lower cost and better cost-awareness; and the greater access at higher speed that had resulted in less open defecation and better living environments. Nevertheless, the districts had not continued their support to the study communes after the pilot. They mentioned in particular the absence of funding for new promotion materials and training. However, as discussed below, two study districts had supported scaling up.

While provincial authorities had not been directly involved in the pilot, they praised the project and its good results in a coastal environment, where poverty and open defecation habits are serious constraints to improving sanitation. They saw two problems for strategy adoption and support provincewide. The first was paying an incentive for sanitation promotion to three promoters in all communes. The second was promoting no-subsidy toilets and training local masons and shops in the mountainous areas with high rates of ethnic minorities.

At the national level, authorities reported that Vietnam is currently not reaching its rural sanitation targets and that adoption of sanitation marketing could help. The Vietnam Women's Union and donors cooperating in rural sanitation were ready to support with capacity development and further piloting. They also recommended the development of improved monitoring of access for the poor, and combining sanitation marketing with Community-Led Total Sanitation (CLTS) as piloted in other parts of the country.

The providers reported that households in neighboring communes had begun to seek services from them and their networks after the pilot project. They also said that new providers and networks had emerged, which copied their example and now offered the same services and goods. However, without proper user information, training of providers and promoters, and toilet follow-up, the same quality of service as in the studied pilot communes was not assured. In Nghi Son Economic Development Zone, for example, which included some of the pilot projects, the quality of construction of sanitary models and user satisfaction had both decreased. Reasons for the decline included: the rapid demand increase, the absence of organization and training of the promoters and providers, and monitoring of construction quality by the community health workers that was too little and too late without support from trained women leaders and village heads.

The research of sustainability at institutional levels also revealed that after the pilot project, two of the four study districts had encouraged all other communes in their districts to adopt sanitation marketing. In Hau Loc district in Thanh Hoa province, the District Steering Committee advocated the approach to the other communes through exposure visits, but without providing training. The district of Nui Thanh in Quang Nam actually scaled up sanitation marketing to all 17 communes. The district encouraged the commune staff to promote sanitation and each commune was able to send some providers for training to the district headquarters. As a result, the other 12 communes achieved similar coverage as the pilot study commune in a little over two years. The highest coverage achieved was 96%; the district-wide average was 49%. The two other study districts did not scale up.

Conclusions, Lessons, and Recommendations

The case study report includes a series of conclusions, lessons learned for replication of the approach in Vietnam and elsewhere, and recommendations. Some highlights:

- Although sanitary toilet promotion by community health workers, women's leaders, and village heads had continued, the lack of budgeting for ongoing supply of promotional materials, the lack of training of new promoters and providers, the lack of market research, and the lack of development of a more specific marketing strategy for the poor may jeopardize future sustainability.
- Service providers and demand for sanitary toilets continued to develop after the pilot project. As long as this growth was limited, peer learning, instruction manuals, and ongoing consumer information could ensure an acceptable construction quality and user satisfaction. An explosion in demand combined with unguided and controlled supply meant that the good results from private sector involvement were not sustained.
- The strategy to target especially women through the women leaders and the heath workers has worked well in the two provinces. From the interviews with the promoters, the providers, and the FGDs, it became clear that women were the most interested, but that the couple, and sometimes their children, made decisions jointly and harmoniously. However, this may be different for other regions in Vietnam and elsewhere, where agreement on a toilet or bathroom as an investment priority in rural households is lower.
- Sanitation marketing has enabled men who worked part-time in sanitation to move out of the agriculture and fishery sectors and obtain better jobs with more career prospects in small-scale enterprise. Thus, rural sanitation marketing has contributed to Vietnam's policy and strategy of rural poverty reduction, albeit without a specific

strategy for gender equity in capacity development of the providers.

- Since there is not a formal recognition from the national government and its integration in rural sanitation strategies and programs is not institutionalized, not all commune, district, and provincial governments were ready to replicate the approach and scale it up. Provincial governments, which are the implementers of the national rural sanitation program, were especially not ready to shift funds now used for toilet subsidies in poor regions to building longer-term local toilet promotion and supply capacities.
- A financing strategy for the poor is missing. A more refined and comprehensive strategy than promoting loans and savings—especially in light of the high inflation level, estimated at 8% for 2009—is needed.
- In the long term, the approach used in the pilot study may not be sustained and expanded without further advocacy for a supportive political and administrative

environment, institutionalized capacity building for promoters and providers, more regular consumer studies, further development of promotional materials and communication channels, and the design and testing of a specific strategy enabling the poor to install unsubsidized sanitary toilets.

A key lesson was the lack of a good, but simple sanitation monitoring system. Missing were: poverty-specific monitoring of toilet access; (i) (ii) the combination of data from all the local sanitation projects of different government departments and NGOs; (iii) the participation of the people in assessing and monitoring the sanitation coverage in their own locations to raise awareness, motivate change, and enhance validity of the data and transparency of program performance; and (iv) data aggregation and integration into a single, easy to use computerized and comparative database at commune, district, and provincial level.

Abbreviations and Acronyms

AusAID	Australian Government Overseas Aid Program
CERWASS	Centre for Rural Water Supply and Rural Environmental Sanitation
CHW	Community Health Worker
CLTS	Community-Led Total Sanitation
DANIDA	Danish International Development Assistance
DFID	Department for International Development (United Kingdom)
FGD	Focus Group Discussion
Gol	Government of India
GoVN	Government of Vietnam
HAPI	Hanoi Authority for Planning and Investment
IDE	International Development Enterprises
IEC	Information-Education-Communication
IPC	Inter Personal Communication
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goals
MOHA	Ministry of Home Affairs
MOH	Ministry of Health
MOLISA	Ministry of Labor, Invalids and Social Affairs
NCERWASS	National Centre for Rural Water Supply and Rural Environmental Sanitation
NGO	Non-governmental Organization
NTP	National Target Program
ODF	Open Defecation Free
O&M	Operation and Maintenance
PDR	People's Democratic Republic
PRA	Participatory Rural Appraisal
RC	Resource Center
RSM	Rural Sanitation Marketing
RWSSP	Rural Water Supply and Sanitation Partnership
SAWAP	Sanitation and Water Partnership
SME	Small and Medium Enterprises
SNV	Netherlands Development Organization
ТоТ	Training of Trainers
TSSM	Total Sanitation and Sanitation Marketing
U3SAP	Unified Sanitation Sector Strategy and Action Plan
UNICEF	United Nations Children's Fund
VH	Village Head (of the hamlet, not the commune)
VIP	Ventilated Improved Pit
VND	Viet Nam Dong (national currency)
VPD	Vietnam Partnership for Development
VUFO	Vietnam Union of Friendship Organizations Vietnam Women's Union
VWU	
WSMB	Water and Sanitation Management Board Water and Sanitation Program
WSP	Water and Sanitation Program

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1.1 Background, Focus, and Objectives

This case study of the sustainability of rural sanitation marketing is part of a wider activity entitled "Total Sanitation and Sanitation Marketing (TSSM): New Approaches to Stimulate and Scale Up Sanitation Demand and Supply Project," also known as the Global Scaling Up Sanitation Project. The long-term vision for this effort is to help a number of developing countries meet the basic sanitation needs of the rural poor who do not currently have access to safe and hygienic sanitation. TSSM tests proven and promising approaches to create demand for sanitation and improve the supply of sanitation-related products and services to increase household access to safe and sustainable sanitation; create open-defecation free communities; and promote improved hygiene practices. Though not one of the TSSM focus countries, Vietnam is one of the countries where a piloted approach to enhance and meet rural sanitation demands has had promising results.

The piloting of a new approach to creating and meeting rural sanitation demands took place in the context of a changing national rural sanitation policy and program. In 1998, the Socialist Republic of Vietnam had formulated a new policy, strategy, and program to meet the Millennium Development Goals (MDG) and national targets in relation to access to improved water supply and sanitation in rural areas. However, while the access to improved rural water supply increased rapidly, progress in rural sanitation lagged behind, making national target achievement less likely. A three-year pilot project was therefore undertaken in 2003 to test if the use of sanitation marketing could improve of rural households' access to sanitary toilets.

Three years after the completion of this pilot project, a case study was undertaken to determine to what degree the approaches and results of the pilot project had been sustained. The overall purpose of the study was to assess and document how well the approach and results have been sustained during the three years after the completion of the pilot project. Other objectives were:

- To investigate whether the approach had spread to neighboring communes ("spill-over effects") and if any spontaneous sanitation marketing development ("parallel development") had occurred in other areas;
- To capture lessons on sustainability, replicability, and scaling up about the approach under the national rural sanitation program in Vietnam; and
- To learn lessons for sanitation programs in India, Indonesia and Tanzania (the TSSM focus countries) and in Cambodia, Lao PDR, and Southern China under the Sanitation and Water Partnership for the Mekong Region (SAWAP), taking into account the socio-cultural, economic and political differences with rural Vietnam.

After reporting on the case study design and the methods of data collection in Chapter 2, subsequent chapters (3–8) address the following research questions:

- Have the pilot communes sustained the increase in access to sanitary toilets that they achieved during the pilot projects? (Chapter 3)
- Have differences in results between individual communes increased, decreased, or remained the same, and why? (Chapter 3)
- Have the underlying sanitation promotion activities been sustained after the end of the pilot project or not, and for which reasons? Which changes have occurred and why and to which effects? (Chapter 4)
- Has the local private sector sustained its service delivery after the end of the pilot project or not, and for which reasons? Which changes have occurred, why and to which effects? (Chapter 5)
- How satisfied are the users with the rural sanitation marketing approach, the services and the products, and what, if any, are the user problems? (Chapter 6)
- Have some households not yet installed sanitary toilets or upgraded unsanitary ones, and if so, why not?

What could be done better to achieve sanitary toilet use and freedom from open defecation for all? How sustainable and sustained are the installed toilets themselves? (Chapter 6)

- To what extent have the authorities in the institutions, from commune to national level, continued to support the rural sanitation marketing approach? What is their willingness to support this approach in future? (Chapter 7)
- And finally, have the marketing approach and results spread to other communes and districts? Has there been a natural "spill-over effect" to neighboring communes? And have similar processes developed independently from the pilot project ("parallel development")? Have the pilot districts themselves scaled up the approach to a district-wide approach or not, and why? Are there any observed impacts from this scaling up? (Chapter 8)

Before presenting the study design in Chapter 2 and attempting to answer these research questions in detail in Chapters 3–8 and arrive at the conclusions, lessons, and recommendations in Chapter 9, the remainder of this chapter briefly summarizes the rural sanitation context in Vietnam and the history and achievements of the pilot project.

1.2 Rural Sanitation Development in Vietnam

According to the National Bureau of Statistics, the rural population of Vietnam numbered 61.7 million people in 2007, 73% of the total population. In 1998 only 24% had sanitary toilets. The government of Vietnam (GoVN) therefore adopted a new sector strategy (GoVN 2000), financing policy (Ministry of Agriculture and Rural Development (MARD) 2003) and two new national programs, the National Target Program I (NTP I) from 1999 to 2005 (GoVN 1998) and NTP II from 2006 to 2010 (GoVN 2006, MARD 2005). The rural sanitation targets for 2010 are:

- 70% of rural households use sanitary toilets and have good sanitary practices;
- 70% of the farmers and animal raising households in rural areas use sanitary animal husbandry facilities and practices;
- All kindergartens, schools, health stations, markets, district head offices and other public offices in rural areas have enough clean water and sanitary toilets;
- Environmental pollution from rural industries, especially related to food and food processing is reduced.

By 2020, <u>all</u> rural households are to have sanitary toilets and good sanitary practices and keep the surrounding environment clean (MARD 2000, emphasis added).

Under the new policy, rural water supply and sanitation services are community-managed and will be planned and implemented with participatory methods. The strategy follows a demand-based approach, in which the users: (i) decide on the type of rural water supply and sanitation facilities they want and will pay for; (ii) finance the construction costs and either hire the contractors themselves or do their own construction; (iii) are fully responsible for the operation and management of the facilities. Behavior change will be promoted through awareness raising and capacity building. Information-Education-Communication (IEC) programs must also be added to introduce the technology and design options, the operation, management and financing mechanisms, and opportunities for credit to help users make the right decisions. Table 1 gives the financing of NTP I. Unfortunately there is no separate data on sanitation.

TABLE 1: ESTIMATED AMOUNTS AND SOURCES OF FUNDING FOR RWSS UNDER NTP I (IN MILLION VND)

Sources of Funding	Central Budget	Other Budgets	International Assistance	People's Self-Investments	Credit by Households	Total
Amount	1,420,000	1,221,585	1,008,600	2,518,702	323,863	6,492,750
% of total	22	19	16	38	5	100

Source: CERWASS 2006.

The table does show that the largest share of financing of water and sanitation facilities (43%) comes from the users, through direct investments (38%) and loans (5%). For international assistance, MARD has signed an agreement with a group of 16 donors (MARD 2006).

Financially, user households must, in principle, pay all costs of construction, operation and maintenance. However, the Government will help households and organizations that need loans to build or upgrade water and sanitation facilities. Very poor households, families with harsh living conditions and other special cases, can get 25% of their investment costs through government finance. Free material or cash subsidies have been abolished, except when targeted at the above-mentioned categories. The use of credit is common in rural Vietnam, but the social loans programs have a low sustainability and the main program does not reach the ultra poor (Box 1). As part of the donor cooperation program, the Department for International Development, United Kingdom (DFID) commissioned a study (Folkard 2009a,b) as part of a plan to target rural loans for improved water and sanitation to poor communities and households.

Other characteristics of the new sanitation sector policy and program are the mobilization and organization of the communes for participation, the possibility of private sector participation and the adoption of three toilet models. They are the double vault composting toilet, the septic tank toilet, and single vault pour-flush water-seal toilet.

The promotion of sanitary toilets and toilet hygiene and the control of their quality are the responsibility of the Department of Preventive Health in the Ministry of Health. The national women's movement, the Vietnam Women's Union (VWU), also promotes sanitary toilets and good hygiene

BOX 1: OPPORTUNITIES AND LIMITATIONS OF RURAL CREDIT FOR SANITATION IN VIETNAM

Credit to finance sanitation with a favorable interest rate (0.5%/month) is available for rural populations under Decision No.62/2004QĐ-TTg by the Prime Minister. The portfolio of sanitation and water loans of the Vietnam Bank for Social Policy is 7% (Folkard 2009a). Beside bank loans, people take loans from relatives and friends, buy on credit, and borrow from moneylenders. Moneylenders charge very high interest rates. However, the monthly interest from various social banks (0.5–2%) is too low to cover the costs. As a result, the loan funds are not self-sustainable and services cannot be expanded to new clients without extra capital injections. Other restricting factors are high bureaucratic requirements and transaction costs, loan management problems in the institutions, and preference of users to take loans for productive, rather than consumptive use (Tran undated).

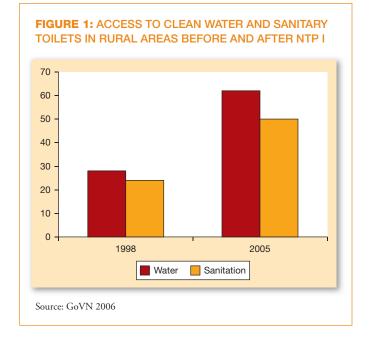
In a study on water and sanitation loans taken by 12 rural communes in each of three provinces from the Vietnam Bank for Social Policy, about half of the loan takers had an income below the national poverty line. However, those in the lowest income bracket (<200,000 VND per capita/month) were underrepresented. Furthermore, the researchers found that the willingness to take a latrine loan at an interest rate covering the real costs fell with increasing loan size. Based on extrapolation, over 7.4 million rural households were estimated to be interested in a loan of one million VND (56 USD) and 78% were ready to pay the real interest costs of 2.9%. This dropped to 2.7 million households and a 28% willingness to pay a real interest rate when the loan value increased to four million VND (225 USD).

Many households also took a combined loan for sanitation and water supply up to the maximum of 8 million VND. The average amount of such a loan was 6 million VND. This amount and the duration of the loans were twice what was planned and budgeted, which further decreased the sustainability of the loan fund. It was also fairly common that households diverted part of their toilet loan to other uses (Folkard 2009a).

practices. In 1998, the VWU organized a Training of Trainers (ToT) to make this promotion more effective (Bolt 1998). In 2002, one of the developers of the PHAST methodology¹, Ron Sawyer advised the MOH on using more participatory methods and visual stimuli to enhance sanitation and hygiene knowledge, practices and demand and organized community action. As a result, the MOH in cooperation with the Vietnam Partnership for Development decided to encourage the water and sanitation sector to introduce participatory hygiene promotion in their programs (VDP 2003).

In 2003, Vietnam adopted new guidelines for Information-Education-Communication (IEC) on clean water supply and safe sanitation and hygiene. The guidelines included training at all levels, but especially for local civil servants, on diversification of messages and channels, the use of participatory methods, dissemination of good models and practices, and resource allocation. A pilot program conducted in four provinces from 2001 to 2006 showed that the program made most communes and leaders adopt participatory and demand-responsive projects (Nguyen and Stoltz undated). However, as of 2003, application at larger scale had not yet started (CERWASS 2003).

External support to rural sanitation has so far come mainly from Danish International Development Assistance (DANIDA). The agency finances a senior advisor to NTP II in the Ministry of Health and supports piloting of new approaches, including the pilot project that is the subject of this study. Many NGOs also support rural sanitation. Most have partnered with local government (the People's Committees) at provincial, district, and commune level (Vietnam Union of Friendship Organizations (VUFO) and NGO-Resource Center (RC) 2005). So far, the different approaches and results have not been compared. A unification of approaches on national policy has therefore been proposed, especially with regard to subsidies for poor households, which may be as high as 50%, twice as much as adopted under the new policy (GoVN et al. 2006: Annex p. 74).



NTP I greatly increased rural access to improved water supply and sanitation. Access to improved water supplies grew 28% in 1998 to 62% in 2005, an increase of 34% or almost 5% per year (Figure 1). Reaching the target in 2020 is feasible (GoVN et al. 2006).

Access to sanitary toilets also increased, but less rapidly. Out of a total of 12.8 million rural households, around 6.4 million households had a sanitary toilet by the end of 2005. The total increase was 26 percentage points, from 24% in 1998 to 50% in 2005. However, compared with the 4.9 percentage point annual growth in access to an improved water supply, the 3.7 percentage point annual growth in access to sanitary toilets has been more modest.

However, actual access varies considerably across the country. Table 2 shows that out of seven regions, access to an improved water supply is below the national average of 67% in four regions, while access to improved sanitation is below the national average of 50% in three regions.

Furthermore, access was still worse amongst the poor: "The poorest 20% are 35 times less likely to have hygienic latrines than the richest 20%" (GoVN et al. 2006: 10).

¹ Participatory Hygiene and Sanitation Transformation

TABLE 2: ACCESS TO CLEAN WATER AND SANITATION IN RURAL REGIONS IN DECEMBER 2005

Region	% Access to Clean Water	% Access to Sanitary Toilets
Nine Dragons River Delta Region	66	35
Red River Delta Region	66	65
South East Region	68	62
Highlands Region	52	39
Northern Mountains	56	38
Middle and South Sea Coast Region	57	50
East North Region/Middle North	61	56
National Average	62	50

Source: GoVN 2006

Because of the slower increase in rural sanitation, a pilot project was therefore started in two provinces to test if a rural sanitation marketing approach could enhance access to sanitary toilets. The approach and results of this project are summarized in the next section.

1.3 The Rural Sanitation Marketing Pilot Project

IDE, or International Development Enterprises, is a nonprofit organization, which uses business principles and unsubsidized markets to help poor rural households sell their products and services better, and so reduce their poverty. IDE has been active in Vietnam since 1991. The Vietnam branch has six offices and 30 staff members.

From January 2003 to December 2006, with a six-month gap in 2005, IDE carried out a pilot project on rural sanitation marketing in 30 communes in six districts of two provinces, Thanh Hoa and Quang Nam (Figure 2). Both are coastal and have above-average poverty levels, but no ethnic minorities. The pilot communes had a total population of 270,000 or almost 54,000 families. Of these, 16% had sanitary toilets, 24% unsanitary toilets and 60% no toilet before the pilot project began. Poor households constituted 19% of the population at that time (IDE 2006). The aim of the pilot project was to test if it were possible to increase and accelerate the growth of sanitation coverage without providing household subsidies by enlarging the demand and improving the supply for sanitary toilets.



IDE undertook four major activities:

- Assessment of the rural toilet market. IDE studied: where rural households bought toilets, materials, and services and for which reasons; who in the household decided on sanitary toilets; which types of toilets customers wanted and could afford and which types were available at which costs; when the demand was highest, and which gaps, constraints, and opportunities existed in the rural sanitation market.
- Offering households a greater toilet choice at lower costs. Before NTP I, the Vietnamese standard models for sanitary toilets were the double vault composting toilet and the septic tank toilet. Construction costs were high (Table 3) and masons were not trained for quality construction at lower overall costs. Under the pilot project, households got a choice of four

		Average Cost Under Pilot Project		
Type of Toilet	Pre-Pilot Cost (Dec '02)	(adjusted to Dec '02) (Adjusted) ²	June '06 (Actual)	
Double vault composting toilet		\$52.20	\$58	
Single vault pour-flush toilet	\$65	\$58.50	\$65	
Semi-septic tank toilet		\$63.90	\$71	
Septic tank toilet	\$150-200	\$87.30	\$97	

TABLE 3: COST REDUCTION OF TOILET MODELS OFFERED UNDER PILOT, BY HOUSEHOLD (IN USD)

Source: Frias and Mukherjee 2005, IDE 2006.

 2 USD1 in 2006 was equivalent to USD0.90 in 2002

models: single-vault, pour-flush toilets, semi-septic tank and septic tank. IDE also modified designs and material options to reduce the indicative costs of these models (Table 3).

- Training local sanitation providers. In each pilot commune, IDE selected shops and masons to participate in the project. They learned how to procure stock and sell all materials for the new models and build the new toilets. The latter included making adjustments to materials and designs that lowered costs, but left essential technical specifications unchanged.
- Training local toilet promoters. IDE trained three promoters in each pilot commune to promote sanitary toilets: the local women's leader from the Vietnam Women's Union (VWU), the Village Head (VH) and the Community Health Worker (CHW). They promoted the toilets through village meetings, group meetings, home visits, the local media (such as messages over the commune loudspeaker system and articles in the local press), and distribution of informational materials (leaflets). IDE prepared and distributed the materials to the communes, but the CHW, VWU leader and VH prepared the scripts for the loudspeaker messages (IDE 2003, 2006).

There were several major differences from the existing toilet programs:

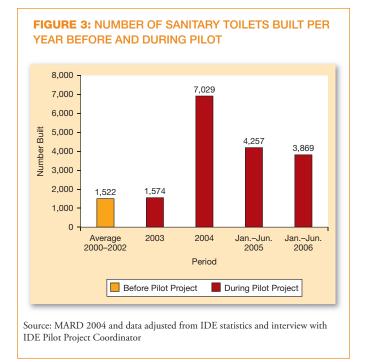
- No toilet subsidies to individual households. All program financing went to market development, training and monitoring, and project support services by the NGO. The participating households paid the full direct construction costs of their toilet. Staff costs were borne by the respective departments/union.
- An even wider range of toilet options. Besides the three options mentioned in Section 1.3, these also

included direct single vault pour-flush toilets, ventilated improved pit (VIP) toilets, semi-septic tank toilets, and toilet upgrading.

- Construction of a local model to determine construction costs when using as many local and lowercost materials as possible.
- Users' choice of the toilet model. Households make an informed choice of the type of toilet they will build, the design of the superstructure, the speed of construction, the amount they will spend, and the method of financing.
- Emphasis beyond toilet construction. The local promoters also promoted good hygiene practices: no more open defecation, hygienic toilet use, and handwashing with soap at critical times.
- Diversification of local services. The private sector was trained on local production, goods supply, construction, and networking to meet locally-specific service demands (IDE 2005).

The results of the pilot project can be summarized as follows:

- As shown in Table 3, the estimated cost of the toilet models is reduced substantially, although the actual cost is locally specific and contingent on negotiations between customer and provider;
- Some 2,000 persons were trained, including the members of the district and commune steering committees and project-related civil servants and authorities at provincial level, 120 district trainers, 723 village promoters, and 750 local masons and shopkeepers;
- Between January 2003 and June 2006, households in the 30 pilot communes constructed or upgraded 15,149 toilets, an average of 3,787 toilets per year. This was 2.5 times the average number of 1,522



toilets constructed per year in 2000–2002 under the existing conventional program.

Figure 3 shows the construction progress over time. The output was still limited in 2003, because until August of that year the focus was on research, organization, and training. Actual construction only covered four months from September to December 2003. Outputs increased rapidly in 2004. As Figure 3 illustrates, they were four times the average output of the conventional program in the preceding three years. The lower outputs in 2005 reflect the gap between Phase I and Phase II, when support from IDE stopped temporarily. In 2006, the outputs are also lower than in 2004, because they are for the first six months only, after which IDE ended the monitoring support.

After the interval between Phase I and II, toilet construction accelerated again in the second half of 2005 and the first half of 2006, until it reached a peak of 1,999 toilets in the last quarter of 2006 (not shown in Figure 3). By the time that the pilot project ended, construction was almost back at the previous rate, with 1,902 households financing and building sanitary toilets in the second quarter of 2006 (data not in the figure above). Overall, and including the number of upgraded toilets, the recorded output of the pilot project was over 16.000 toilets. When based on the actual number of months of support from IDE (34), the average monthly construction was almost four times the comparative output of the government program during the preceding three years.

Poor households installed sanitary toilets less easily than the intermediate-level and better-off households. While 19% of the households in the pilot communes were poor, their representation among the total of those building toilets was 16% (Nghiem 2009).

The above results were achieved with an investment of USD33 (546,249 VND) per toilet for project support costs, excluding the initial research and development and start-up costs. Households themselves spent on average the equivalent of USD65 (1,075,945 VND), an investment ratio of 2:1. However, their actual investments depended greatly on the type of toilet built.

1.4 Case Study on the Sustainability of Sanitation Marketing

Three after the completion of the pilot project, the World Bank's Water and Sanitation Program (WSP) commissioned a case study to investigate the sustainability of the approach and its effects.

The overall purpose was to assess and document how well the approach and results have been sustained during the three years following completion of the pilot project. Other objectives were:

- To investigate whether any spontaneous sanitation marketing development ("parallel development") have occurred in other areas;
- To capture lessons on sustainability, replicability and scaling up of the approach under the national rural sanitation program in Vietnam; and
- To learn lessons for sanitation programs in India, Indonesia and Tanzania and in Cambodia, Lao PDR and Southern China under the Sanitation and Water Partnership for the Mekong Region (SAWAP), taking into account the socio-cultural, economic and political differences with rural Vietnam.

Annex 1 contains the Terms of Reference for the study.

Before going into the findings of the case study on the sustainability of rural sanitation marketing, this chapter describes the case study design process, the design itself and the limitations of the study. The major results of the case study are given in the next chapter.

2.1 Case Study Design Process

A team of four specialists in sanitation, community development and communication, marketing and economics, and engineering prepared the design of the case study and collected and analyzed the data. Six other social specialists assisted in the field implementation. The composition of the team is given in Annex 2.

After review by WSP, the draft design was presented for a wider review to a Consultative Meeting organized by the Coordination Unit of the Rural Water and Sanitation Partnership (RWSSP) of the Ministry of Agriculture. Other participants besides the members of the RWSSP (a partnership of the Government of Vietnam and 14 donor agencies) were representatives of relevant Vietnamese departments and organizations and of international NGOs and other agencies involved in rural sanitation. At this meeting, on the 6th March 2009, the team presented the draft design and methodology of the study in English and Vietnamese. Annex 3 contains the list of participants. This generated valuable comments and suggestions from the participants, which have been summarized in Annex 4. Annex 5 contains the list of participants of the second meeting with the national and provincial stakeholders to present and discuss the findings of the field study and the preliminary conclusions and recommendations.

2.2 Sample and Methods of Data Collection

The case study was carried out in eight pilot project communes in four of the six districts in Than Hoa and Quang Nam province (Figure 2) and in two non-project communes in each province. A two-step purposive sampling approach was followed to get a good cross-section of study locations. To look also at other performance criteria than just output, the team used seven indicators to identify a cross-section of communes which had performed better and less well on these indicators during the pilot period. They are listed in Table 4.

#	Indicator	Description
1	Performance prior to the pilot project	Degree of progress in % access to sanitary toilets during the three years preceding the pilot project (2000–2002)
2	Performance during the pilot project	Degree of progress in % access to sanitary toilets during the four years of the pilot project (2003–2006)
3	Comparative growth	The relative growth in % access to sanitary toilets under the pilot project as compared to that under the preceding program
4	Upkeep of growth during the pilot project hiatus	Degree to which the districts and communes continued their progress in % access to sanitary toilets in the six months between Phase I and Phase II of the pilot project, when support from IDE had stopped
5	Speed in recovery of their growth after the pilot project hiatus	The speed in which the communes had recovered their growth in % access from before the hiatus
6	The relative increase in % toilet coverage over time	The degree to which communes have sustained their growth in $\%$ access to sanitary toilets during these five years (lowest performance = 100)
7	Access for the poor	% poor households in each commune which have installed a sanitary toilet

TABLE 4: INDICATORS USED TO SELECT THE CASE STUDY SAMPLE

Province	-	Thanh Hoa		Quang Nam
	Hau Loc District:	Hai Loc: "better"	Nui Thanh	Tam Anh Nam: "better"
Project	"better"	My Loc: "less"	"better"	Tam Hoa: "less"
Districts	Tinh Gia District:	Hai Thanh: "better"	Thang Binh	Binh Trieu: "better"
	"less"	Tinh Hai: "less"	"less"	Binh Hai: "less"
Non-Project	Hau Loc	Minh Loc	Nui Thanh	Tam Hiep
Districts	Tinh Gia	Binh Minh	Thang Binh	Binh Tu

TABLE 5: COMPOSITION OF THE CASE STUDY, BY TYPE OF PERFORMANCE DURING PILOT

The list of study districts and communes that emerged from this selection process is given in Table 5. They have been labeled "better" and "less," because none did best or worst on all seven indicators. For example, those with the highest score on % access did not necessarily also have the highest increase in % access or the highest % access for poor households. The table also contains the non-project villages, which were visited to find out more about sanitation performance without the support of rural sanitation marketing.

Information on the sustainability of the approaches and results was collected through the following research methods (see Annex 5 for the list of functionaries interviewed):

- Review of project documents, records and projectrelated literature
- Collection and review of commune statistics from various sources on the population, number of households, and number of households with sanitary, unsanitary, and no toilets in the pilot and control communes
- Semi-structured interviews with IDE and other stakeholders at national level
- Semi-structured interviews with the promoters and providers in the eight study communes (Figure 4)
- Semi-structured interviews with district officials in relevant positions (local government, Vietnam Women's Union, and Preventive Health Department)
- Eight focus group discussions with householders who had built a sanitary toilet either during or after the pilot project, and eight with householders who had no, or unsanitary, toilets and had not yet built a sanitary toilet
- Structured observations of 28 household toilets on their quality of construction, use and hygiene, and questions about patterns of use and disposal of children's stools

FIGURE 4: INTERVIEW WITH PROVIDER



 Qualitative information collection from providers and district authorities on "natural spill-over" of the approach to neighboring communes and on any similar processes that have developed independently from the pilot project ("parallel development").

The study began in the last week of February 2009 with the desk study and the design of the field study. Interviews at national level began in May 2009. They were followed by the fieldwork in June and the first part of July. Data analysis and the remaining interviews at the national level were carried out in the second half of July. This allowed sharing preliminary information from the field study when discussing potentials for replication and scaling up.

2.3 Study Limitations

As with all research studies, this case study has some limitations. They are highlighted here.

Representativeness. Both the size and composition of the pilot project—30 communes in six out of 553 districts and two out of 63 provinces (Government of Vietnam 2009)— and of the study—eight communes, four districts, and two

provinces—are not representative of the whole of rural Vietnam. The findings from the study can therefore not be generalized for the whole country. At the same time, the study sample can be taken as a cross-section for the whole pilot project area because of the balance between communes and districts with better and less good sanitation program indicators. Thus, while the findings are not representative for the country, they can be considered representative for the pilot project.

Another factor with a potential effect on the representativeness of the findings was that the study did not include interviews with providers who had taken part in the pilot project, but had stopped working in sanitation since the project ended. However, no evidence of such dropping out was found. Both promoters and providers were asked if they knew about any people who had stopped. This was not the case in any commune, and 14 of the 23 promoters said that only new providers had come.

Reliability. It should be taken into account that when asking the participants about their experiences and motivations, a period of between three and six years has passed between their participation in pilot project and the time of the interview. This passage of time may have influenced the accuracy of the information and the reliability of the findings. A further shortcoming was that the interview and FGD schedules were not pre-tested. With hindsight, the pre-tests, but especially the analysis of their results, could have led to adjustments that would have increased recall and the reliability of the data.

Data availability. A major limitation to the study was the limited availability of project records: due to a computer crash IDE had lost part of its financial and field data. It also proved to be very difficult to collect reliable statistics on toilet coverage for all 30 pilot project communes and three non-project communes (Figure 5). Data was obtained from different sources, such as the commune vice chairmen, commune statistical officer, and the head of the Health Post, but they were frequently incomplete or internally conflicting and much effort was needed to resolve these problems to the best extent possible. Where this was not possible,

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it has been explained in the text. A final limitation was the lack of data on % access to toilets in the two comparative communes in Quang Nam province. In Tan Hiep, no data was available at all. In Binh Tu only for 2008.

Before the study could start, the local authorities had to be informed about the purpose and nature of the study. This was also necessary to dispel any notions that a new sanitation project was about to be implemented. This information may have influenced some to present a rosier picture, so as to appear in a good light, and others a gloomier one in the hope of getting support once again. The experiences in the interviews and FGDs do not support this, however. For example, many households who had not yet built a sanitary toilet suggested other solutions to financing than a program subsidy.

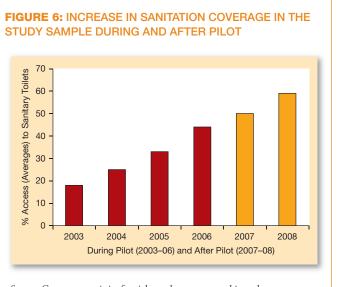
III. Sustainability of Increase in Access to Rural Sanitation

In this chapter, the main results of the case study are presented. First, it is reported to what extent the results of the pilot project have been sustained in the sample as a whole. This is followed by the results in the individual case study villages and the differences between them. The development in the case study sample is then compared with what happened in the comparative communes without pilot. And finally, the chapter discusses the topic of sustained access increase for the poor.

3.1 Toilet Construction in the Case Study Area

The statistics on population and toilet ownership collected in the study communes during the case study showed that in the two full years after the pilot project ended, the increase in sanitary toilet coverage in the study area has been sustained. Figure 6 gives the overall picture for the eight case study communes. During the pilot project, coverage in this sample increased from 18% to 44%, an increase of 26 percentage points in four years, or 6.4 percentage points per year.

Review of the study commune statistics showed that after IDE's support had ended, the average sanitary toilet coverage in the study sample continued to grow from 44% (in

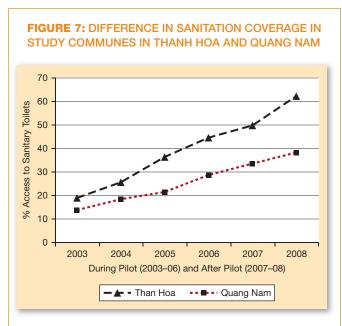


Source: Commune statistics for eight study communes, this study

2006) to 59% (at the end of 2008). This is an increase of 15 percentage points in two years or 7.5 percentage points per year. This means that the local stakeholders in the study sample have sustained the average annual growth rate in sanitation coverage of 7.5 percentage points from the pilot project in all 30 communes, and have surpassed by 1.1 percentage point the average growth in their own group. As mentioned in the paragraph above, this growth averaged 6.4 percentage points per year and after the pilot increased to an average growth of 7.5 percentage points per year.

Province-wise, the rate of growth has been higher in the study communes in Thanh Hoa province than Quang Nam province. This is shown Figure 7 and Figure 8. However, the 62% coverage in 2008 in the rural sanitation marketing study communes in Thanh Hoa province is still below the 75% coverage given in the national statistics (RWSSP unpublished data).

For Quang Nam province, the coverage in the study communes in 2008 (38%) is slightly above the provincial average of 37% (RWSSP unpublished data).



Source: Commune statistics, this study

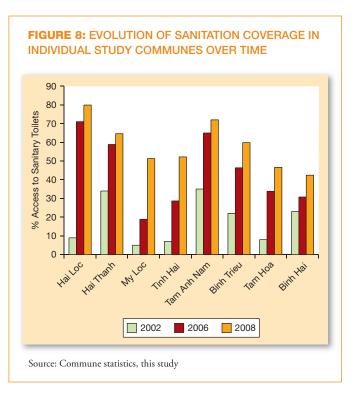


FIGURE 9: INCREMENTAL SANITATION COVERAGE IN STUDY COMMUNES DURING AND AFTER PILOT 100 90 % Access to Sanitary Toilets 80 70 60 50 40 30 20 10 0 TamAnham BinnTrieu Haithanh Hailoc TinnHai MyLoc BinnHai TamHoa 📕 Increase Under Pilot 📃 Increase After Pilot Baseline Source: Commune statistics, this study

3.2 Coverage in the Individual Study Communes

Figure 8 shows the individual performance of the eight case study communes in sanitation coverage between 2003 and 2008. The data shows a sustained growth in sanitation coverage in all communes. All increased their toilet coverage further, including after the support from the pilot project had ended. As the data is in percentage of population covered, the sanitation coverage growth amply surpasses the average annual population growth of 1.02% during the pilot project and of 1.06% in the two years afterwards.

The figure also shows that under the pilot project, Hai Loc, Hai Thanh and Tam Anh Nam in particular made great progress in their sanitary toilet coverage. At the end of the pilot project in 2006, they had achieved coverage figures of 71%, 59% and 65% respectively. They also sustained these top positions after the pilot project, with coverage reaching 80%, 65%, and 72% respectively, by 2008.

Two communes, My Loc and Tinh Hai, made their greatest progress in % access to sanitary projects after the pilot project. This is illustrated more clearly in Figure 9. While their progress during the pilot project was relatively slow, they were able to catch up a lot of their gap during 2007 and 2008. They also achieved this in almost half the time. While the pilot took almost four years, they caught up in sanitation coverage in two years.

In the interviews, the local authorities of the communes concerned gave different explanations for these jumps forward. In My Loc, the People's Committee chairman said that the Commune Steering Committee had been very active in supporting sanitation promotion after the end of the pilot project (see also Table 18). In Tinh Hai, the local health and commune authorities indicated that the main reason for their progress was the fact that the commune had become part of the new industrial zone of Nghi Son and many households used the government's compensation for their farmland to build a new house with a sanitary toilet.

3.3 Comparison with Non-Project Communes

Is there any difference between the growth of sanitation coverage in the pilot sample and in a group of comparative communes without a pilot project intervention? The case study looked at this question in four non-project villages. They were different, however, from the comparative villages that had been included in the pilot project. In 2003, IDE also collected baseline data in three non-project communes in Quang Nam province (Tam Phuoc, Binh Dinh and Duy Hai) in order to compare progress in the pilot communes with developments in non-project communes. In Thanh Hoa province, no comparative data was collected.

Because these comparative communes were quite far from the study area, visiting them would have increased the time and budget of the case study. Moreover, the database had no data on the characteristics of these communes with the pilot communes. Hence, it was decided to select four other comparative communes, which would belong to the study districts and be comparable to the study communes, but would be located at sufficient distance to reduce the chances that they were influenced by the pilot project. For these logistical, financial, and methodological reasons, the study team therefore chose four other non-project communes, two in Thanh Hoa province (Minh Loc and Binh Minh), and two in Quang Nam province (Binh Tu and Tam Hiep).

Comparison of the study communes and comparative communes on location showed that agriculture was the main source of income in both groups. The only exceptions were the study communes of Hai Loc, a fishing commune, and Tinh Hai, a former agricultural commune, but now part of the industrial area of Nghi Son. Other characteristics of the two groups are presented in Table 6. As the table shows, both groups are comparable in population size, number of households and average annual income per person. The latter implies that incomes per household are also comparable, because the average household size is almost the same (4.5 and 4.7 respectively; statistics not shown in Table 6). However, the table also shows that the both the variation in average individual income and income growth over time are greater in the study sample than in the comparative group.

In contrast, the study sample has 6% more poor households on average. On the second indicator of poverty, the percentage of children under five with nutritional deficiencies, both groups scored the same, but the variation is lower in the study group than in the comparative group. Finally, Table 6 has statistics on the annual income of the communes themselves. These do not give a clear picture. Although the average income of the communes is higher in the comparative group than in the study group, the variation is too large to show any true differences.

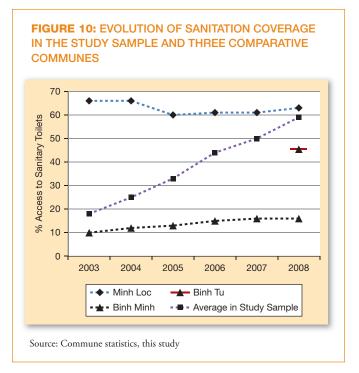
From the above it can be concluded that with regard to the household characteristics, the two groups are quite comparable except for economic status. However, because the two trends (income and % poor) are in opposite directions, the confounding influence of economic status on the match between study sample and comparative group can be considered negligent. Thus, the results in two groups—with and without pilot—can be considered comparable. However, because the design of the study is not a randomized control trial, no statistical conclusions can be drawn about the attribution of the effects to the pilot approach.

The results on the increase of sanitation coverage in the two groups are shown in Figure 10. For the reasons already given, the figure covers only three of the four non-project communes, and in Binh Tu has only the access for 2008.

Population Samples Size		# Households		Annual Income Per Person Per Year (X 000 VND)		% Increase in Annual Income Per Person Per Year			% Poor Households		% Nutrition Deficient Children < 5		Annual Income of Commune (X 000.000 VND)	
	Av.	Range	Av.	Range	Av.	Range	Av.	Range	Av.	Range	Av.	Range	Av.	Range
Study Communes	9,032	4,449– 11,549	1,999	1,071– 3,397	4,932	3,264– 9,200	174	126– 263	27	22–27	25	22–27	1,420	750–2,000
Comparative Communes	8,664	2,779–	2,368	1,277– 3,291	5,236	5,400– 6,500	149	146– 151	21	11–30	25	11–30	2,077	1,700– 4,600

TABLE 6: COMPARISON OF THE STUDY AND COMPARATIVE SAMPLE

Source: Commune statistics, this study



The figure shows that average sanitation coverage in the study sample, as indicated by the squares, climbed steeply. In contrast, the comparative commune of Minh Loc, which had a much higher sanitary toilet coverage at start in 2003, was not able to keep up its sanitation coverage with its population growth. By the year 2008, the group of the eight study communes had almost closed the gap in coverage difference.

Sanitary toilet coverage in the comparative commune of Binh Minh increased, but at a much slower pace than that of the study sample. For Binh Tu, the only sanitation figure available was for 2008. This is also lower than the average for that year in the project communes.

3.4 Installation by Poor Households

After reporting the results on the sustainability of the increase in toilet access after the pilot, this section looks into statistics on toilet access for poor households. More qualitative data on poverty and sanitary toilet construction can be found in the chapter on Focus Group Discussion in Section 6.2.

Vietnam has set national criteria to define poverty and classify households as poor. From 2002 to 2005, poor households were those that had an average income of less than 100,000 VND (USD60 in December 2005) per person per month in rural delta areas (Socialist Republic of Vietnam 2002). For 2006–2010, this was raised to less than VND 200,000 (USD11.23 per person in rural areas (Ministry of Labor, Invalids and Social Affairs [MOLISA] 2005).

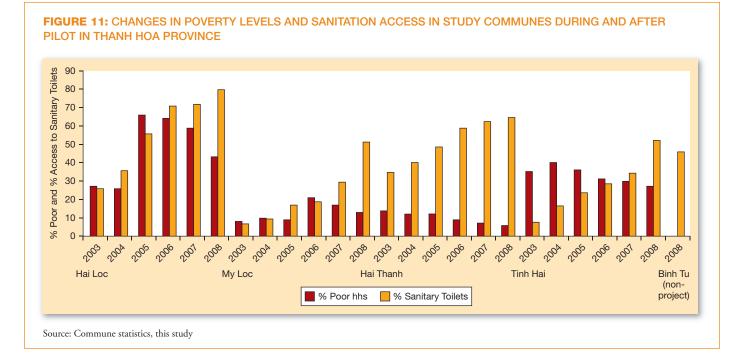
The communes keep statistics on the percentage of poor households. They also keep statistics on the numbers of households without toilets and with unsanitary and sanitary toilets, according to the national toilet standards. However, none of the communes collect combined annual statistics: the percentage of *poor* households with *sanitary*, *unsanitary*, and *no* toilets. Data on income quintiles (number of poor, poor-to-average, average, above-average and well-off households) are also not available, except for three of the eight study communes in 2008.

During the pilot project, the local promoters monitored the increase in sanitary toilets in households above and below the poverty line. IDE then aggregated the data into the project's database. This made it possible to show, as reported in Section 1.3, that 16% of the households who built a toilet under the pilot were poor, while poor households in the pilot communes averaged 19%.

After the pilot project, none of the study communes have continued to monitor toilet installation by poor households. It has therefore been impossible for the study team to find out if, after the pilot project, the access of the poor has remained the same, has increased or has dropped. The only findings that can be reported are the unrelated trends on poverty and sanitary toilet ownership in the study communes in Thanh Hoa province) and Quang Nam province (Figures 11 and 12).

Looking at the changes in Thanh Hoa (Figure 11), toilet coverage increased over time irrespective of whether poverty was relatively high, as in Hai Loc and Tinh Hai, or low, as in My Loc and Hai Thanh. Toilet coverage in Hai Loc even continued to grow when the poverty level soared temporarily.

In Quang Nam (Figure 12), the same contradictory changes can be seen. Toilet coverage increased over time while poverty levels remained the same (in Binh Trieu), or periodically increased (in Tam Anh Nam, Tam Hoa, Binh Hai). Furthermore, in Tam Anh Nam and Tam Hoa, sanitation coverage increased more rapidly than poverty levels fell.



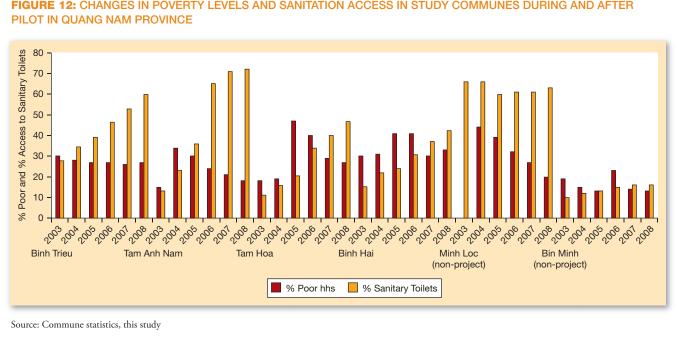


FIGURE 12: CHANGES IN POVERTY LEVELS AND SANITATION ACCESS IN STUDY COMMUNES DURING AND AFTER

However, it should be cautioned that these trends do not necessarily mean that toilet ownership in the study areas has increased irrespective of local poverty levels. Many of the households who have built toilets since the pilot may well belong to the less poor, the middle class, and the

better-off. Because the current commune records do not give data on toilet ownership by economic level, it was not possible to identify if the poor have continued to install sanitary toilets as often, more, or less than during the pilot project.

IV Continuation of Sanitary Toilet Promotion

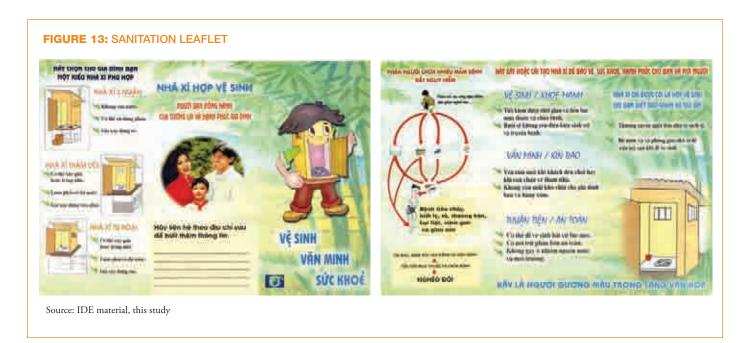
This chapter explores the promotion efforts with which the pilot project results were achieved and sustained. (The role of the providers in sanitation marketing is covered in Chapter 5). For this purpose, semi-structured interviews were held with 23 promoters (eight VWU leaders, eight VHs and seven CHW), in total 11 women and 12 men. All had worked as promoters during the pilot project.

4.1 Promotion During the Pilot Project

During the interviews, the promoters reported that during the pilot project, they had encouraged households with no or provisional toilets to build sanitary ones, and had informed people about the types and costs of models available at general commune assemblies. They had also organized special meetings on sanitation and distributed the material provided by IDE. This included a leaflet with the four toilet models (Figure 13) and a leaflet with handwashing instructions (Figure 14) and wooden models of the four types of toilets. The translation of the leaflets is given in Box 2 and Box 3. The promoted benefits were based on IDE's consumer research. Most communes also placed a signboard in the centre of the commune and used banners at special sanitation meetings. Each promoter had also a handbook on what to promote and how to do it.

The promoters further encouraged the acquisition of sanitary toilets through door-to-door visits and home visits to families with or without unsanitary toilets. They also invited commune masons to come to the meetings to present the toilet models, answer questions and get into contact with potential customers.

Messages that the promoters said they spread included "Have sanitary toilets to protect your family," "Be civilized and have a modern toilet," and "Have a sanitary toilet to protect community health." They also told the villagers that a high number of households with sanitary toilets was a sign of a "cultural" or modern village. The "cultural village competition" is an annual event and many standards must be met to obtain the title, for example, percentage of poor households, percentage of households with sanitary toilets and no social evils such as drugs and family violence. If the percentage of households with sanitary toilets decreases, the VHs concerned lose the title of "cultural village" for their community (see also Section 7.1.1).



Global Scaling Up Sanitation

First side:	Second side:					
Under symbol (boy with toilet): • Sanitation	Toilets are sanitary only when you know how to maintain them:					
CivilizationHealth	Clean the toilet oftenPut water and soap near toilets for hand washing					
Central heading: Sanitary toilet: fellow traveler of families' future happiness	 Build or upgrade toilets to protect health and happiness for you and the people 					
For further information, please contact the following	SANITATION/HEALTH					
address:	Save time and money from buying medicinesChildren's feces are as dangerous as adults' feces					
	CIVILIZATION/PRIVACY					
Left side: Choose for your family one prototype of these toilets:	Convenience when guests are coming overNo smell for your family and neighbor					
Double vault composting toilet: without water	CONVENIENCE/SAFETY					
feces can be usedlow construction costs	 Can use at any time Safe fertilizer storage No pollution to water sources and environment 					
Single vault pour flush toilet:	BE A MODEL FAMILY IN A CULTURED VILLAGE					
can be constructed close to or inside the house	The diagram on the left:					
needs a sufficient supply of waterreasonable construction costs	People's feces contain very dangerous germs Diarrhea, dysentery, typhoid, hepatitis, parasitic worms					
Septic tank toilet:	Sickness, labor force reduction					
 can be constructed close to or inside the house 	Money wasted to buy medicine and for health					
needs a sufficient supply of water	treatment Poverty					
high construction costs	Poverty					

While all three types of promoters—VHs, VWU leaders and CHWs—said they had been equally active in terms of time spent on promotion, the VHs have reportedly participated in the widest range of promotion activities. As one promoter said: "The head of the village must participate in everything." (Promoter #6)

The promoters said that other commune mass organizations, such as the Farmers' Union, the Soldier's Union ("Fatherland Front"), the Communist Youth Union, and the Students' Club supported their efforts by promoting the toilets in their own meetings. People's Committees and Party officials were said to be more rarely involved.

4.2 Continuation of Sanitation Promotion After the Pilot

IDE paid the village promoters an incentive of 20,000 VND/month (USD1.20 at the end of 2006) during the pilot project. This incentive stopped after the pilot project. Nevertheless, of the 24 promoters, only one VH said that he had stopped sanitation promotion because the pilot project had ended. The other 23 said that they continued



BOX 3: HANDWASHING LEAFLET, ENGLISH TRANSLATION

Front page: Sanitation, Civilization, Health Health: the assurance for your children's bright future

- Toilets need to be maintained and cleaned
- Always keep toilets locked, dry and clean
- Collect and put feces of children into toilets

Put water close to toilets for easy hand washing Feces need to be composted at least 6 months before disposal Back page: Handwashing is an effective way of disease prevention

- How to wash hands? Wash hands with clean water and soap
- Rub hands firmly at least three times
- Dry hands on a clean cloth

When to wash hands?

- · Before eating and feeding
- Before processing food
- After going to the toilet and cleaning children's bottoms

Unclean hands contain lots of dangerous germs Diagram:

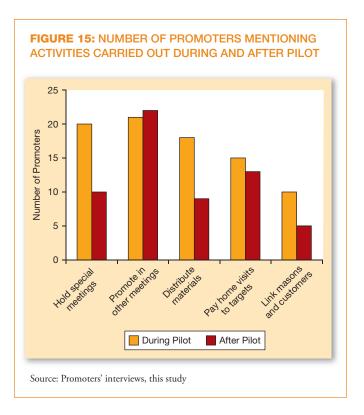
Human stool and unclean water source



Child suffering from stomach pain

- Diarrhea, dysentery, typhoid, polio, hepatitis, parasitic worms
- Hands are one of the ways of spreading the above diseases
- When the hands of the mother are not clean, there is a risk of spreading the above diseases to other members of the family

The future happiness of the family is in your hands



the through the present time, albeit with a lower intensity and range of activities. The type of activities that they reported is given in Figure 15. As illustrated here, they said that they had especially continued promotion during local meetings and through home visits.

About half of the promoters said that they also still made follow-up visits to check the construction quality and the hygiene of the installed toilets. In most study communes, the promoters further said that they carry out these activities once a month, particularly on "green day." This day, which individual communes give different names, is for promoting cleanliness "from the door to the alley."

The reasons that the promoters gave for their reduction of promotion activities was that after the end of the pilot project there was no more money for printing new promotional materials and their promotion allowance had stopped.

The promoters explained that during the pilot period their work was subject to seasonal variation, and that this was still the case. Promotion stopped during the wet season, the planting and harvesting time, and during Tet, the Vietnamese New Year, when no toilets are built. Only in Thang Binh district did the promoters continue their toilet promotion year-round, because there was a mutual agreement that the district would compete on sanitation coverage throughout the year. After the pilot project was over, this year-round toilet promotion has continued, but with a lower intensity for the reasons given above.

Most promoters said that they had continued the work because it is part of their job. Other motivating factors were that the toilets improved their village and village health. A smaller number mentioned the future of the children and the training from IDE. Several also said that they hoped that their village would be awarded the title of "cultured village" mentioned above.

Intensity of continuation was reportedly also influenced by the presence of specific programs, plans and funds:

> "Only when there is a plan, will there be financing. Financial support is one of the prerequisites for action." (Promoter #5)

Most promoters said that in spite of high construction rates the interest in sanitary toilets among those without toilets had not dropped and had sometimes even increased. (Note: This is borne out by the FGDs with householders without toilets. Most participants wanted more and different information, see Section 6.2.4 below).

Furthermore, they said that both during the pilot and at present, women were the most interested target group. If men participated, it was together with their wives.

The promoters also said that there was no class factor in access to information on sanitary toilets. People from all classes upper, middle and lower class—attended the meetings equally well. Nevertheless, half of the promoters had noted an increase in toilet construction by the poor:

> "Now, people are building many toilets. Even households near the river build toilets, too. Some families have the rings cast already and complete their toilets later." (Promoter #5 and Figure 16)

Of the 23 promoters still working, ten said that the number of poor households that build toilets now is the same as under the pilot project. Ten others say that more poor households now build a sanitary toilet, two say fewer, because of a lack of FIGURE 16: PRE-CAST RINGS FOR (SEMI) SEPTIC TANKS



money and one did not know. The promoters who said that now more poor people build a sanitary toilet gave the following reasons:

- People are more aware of the different models, costs and prices. (Promoter #9)
- Some have no money, but they get the tank cast and installed first. (Promoter #1)
- They save money to build a toilet. (Promoter #9)
- They are supported by low-interest government loans. (Promoters #18 and 19)
- Poor households have saving clubs. Each pays e.g., VND 200,000 per round and the money for the toilet goes to the group member who draws the "lucky number." (Promoter #21)
- Poor households can get money to improve their water supply or sanitation under the "Clean Water Program." (Promoter #2)

Those promoters who had observed increased toilet construction by the poor said that this was due to the better economic situation, the greater awareness of the benefits of a sanitary toilet so that people are more willing to save or take out a loan for construction, the reduced availability of waste land for open defecation, and the greater choice of differently priced toilet types.

4.3 Availability of Promotion Materials After the Pilot

About one-fifth of the promoters still had some promotional materials left from the pilot project to share with new households. Nowhere had promoters produced or obtained any new promotional materials, but several reported having made new messages for the local radio and loudspeaker programs.

4.4 Future Sustainability of Sanitation Promotion

The promoters expected that their work would continue as it is now and that in due course, and in spite of the challenges for the poorest, their communes would achieve 100% toilet coverage, with all households having sanitary toilets according to the Vietnamese standards. Target setting will help:

> "If we continuously increase coverage as planned, we shall have achieved 70–80% after 10 years." (Promoter #5)

However, the continuity of the promotion may decrease because VHs and VWU leaders are transferred every three to four years. None of the promoters knew of any budgetary provisions for new promotional materials, training of the replacement staff or further development of the promotion work. Of the interviewed promoters, the CHWs could best recall the pilot project's strategy and results. However, neither they nor the VHs or VWU made annual sanitation and hygiene promotion plans or monitored sanitation progress in their communes.

4.5 Sustainability of Constructed Toilets

On the sustainability of the toilets themselves, the promoters said that people generally maintained their toilets well (Figures 17 and 18; compare also Section 6.3 on toilet observations). They either knew no case of broken toilets constructed during or since the pilot project, or only one or two cases. Larger numbers mentioned by three promoters referred to a wider working area than the study communes and to toilets that had not been built to a satisfactory standard. The most common problems reported were the use of cheap materials and bad design or construction.

Regarding sustained use by all, most promoters said that some people with toilets still occasionally used the fields for open defecation and that open defecation also still occurred among children. However, in the FGDs reported in Section 6.2.2, many participants said that in the field they used the "cat method." They made a small hole for defecation and covered the excreta with sand/soil afterwards. The FGD participants also said that families with a toilet and young children generally threw the stools of infants in the toilet, but that infants in FIGURE 17: OBSERVED TOILET HYGIENE AND HYGIENE IMPLEMENTS



households without toilets would defecate outside, in one case with immediate bodily harm (Box 4).

On environmental sustainability, half of the promoters thought that when the pits and tanks of the sanitary toilets have filled up, the owners will deposit the sludge directly onto the vegetable crops.

4.6 Replicability of Promotion in Other Parts of Vietnam

Virtually all promoters said that the same three types of staff could do the sanitation promotion in other parts of Vietnam. They were almost equally divided in their opinion whether the best expansion strategy would be that they train the staff in neighboring communes and districts themselves, or that IDE should do this. A small sub-group said that they favored "roving teams of master trainers" organized by the Department of Preventive Health and the VWU. Many promoters also said that a good financing strategy for poor households would be a major necessity for any new program.

FIGURE 18: OWNER SHOWS LARGE, SHINY TOILET



BOX 4: OPEN DEFECATION AND "TREASURED POSSESSION"

In one of the FGDs, the group told a tragic case of a child's excreta disposal in their village. A mother had told her son to defecate outside. Immediately, a dog came to scavenge the stool and unfortunately he bit the "treasured possession" of the son. The boy had to be hospitalized. Sustainability of Sanitation Supply Services

As mentioned in the section on methods, the field study team carried out semi-structured interviews with sanitation providers who participated in the pilot program. They were one producer, five contractors, five shopkeepers and ten masons, 21 providers in all. All masons but one, as well as the producer, were middle-class entrepreneurs. The one mason who was an exception belonged to the locally better-off. Of the shopkeepers and contractors, one was middle-class, the others belonged to the locally better-off. The classification has been based on observed indicators such as type of building and size of business and stock, in comparison with neighboring enterprises and on information from the interviews themselves (e.g., on turnover and income).

5.1 Existing and New Providers

Of the 21 providers, 13 said that they were already in business before the pilot project had started the others had started their sanitation business during the pilot. Two mentioned explicitly that they had started their business because of the training they had had from IDE. Most providers had already been working in the construction industry for at least five years and some as long as 15 years. Three people had started in 2005/6. Some had had different jobs before: two were farmers, others occupations included the transport business, selling agricultural supplies, electrician and community health worker.

Half of the providers (two contractors, one producer, one shopkeeper, and seven masons) said that they had been trained by IDE. Those trained said that they had been chosen because of their experience in the construction business and had mainly been selected by the village authorities, such as the VH or the CHW. The others had not received training. They had been working as masons in the pilot communes and did not know why they had not been chosen. The contractor said that his foreman had been trained and that he had trained the others. All providers used the new models, designs, materials, and construction methods. They had learned about them from other masons and shops, and from the mason manual produced by IDE.

The providers mentioned several reasons why they had started or expanded their toilet business:

- The increasing demand for sanitary toilets;
- The opportunity to expand their business and increase their income;
- The availability of resources (time and money) to expand their business;
- The opportunity to gain new experiences and skills;
- The wish to serve the people;
- The opportunity to fill a gap in the market.

"Until now, nobody sells this product, so if I sell [it], it is promising." (Provider #21)

5.2 Range and Development of Services

Asked about their service activities, 17 of the 21 providers said that they provided a range of services for the households to choose from. Sixteen of them also said they had increased their range of services since the pilot project. This is detailed further below. One of the contractors, for example, also had a large shop. Not only did he sell sanitation materials and goods and construct toilets, but he also provided a full sanitation package if so desired: locally adjusted design, costing, materials procurement and supply, transport, and construction. However, he did not distribute information materials nor did he participate in meetings for toilet promotion or pay home visits. The other contractors said that they made no specific designs, but otherwise provided the same services as their colleague. Three shopkeepers said that they also carried out toilet design and costing, and another three said that they also transported materials.

The ten masons also said that they provided different ranges of services. Only one, who was also the community health worker, did toilet construction as an additional job and did not provide any extra service. The others also did design and costing, and/or provided transport. None of the providers said that they gave any specific after-sales services, but a number provided a product guarantee as detailed in Section 5.2.3.

5.2.1 Adjustments to Materials, Designs, and Products As mentioned, 16 of 21 providers had developed their services since the end of the pilot project. Most said that they had done so to meet changing market requirements and

FIGURE 19: PROVIDERS ADJUSTED TO NEW DEMANDS, SUCH AS SEAT-TYPE TOILETS



better satisfy their customers. Reported changes were adjustment to rural sanitation materials, designs and products, services (financing and desludging), and network development. They are detailed in the next sections.

Sixteen providers reported that they had made adjustments since the end of the pilot (Figure 19). Changes concerned the types and nature of the materials ("more ready-made"), the toilet design, and the range of products:

- Provider # 24 said that he now designed with more expensive materials.
- Provider #4 now installs septic tanks with ventilation.
- Provider #18 said that he had adjusted the dimensions and interior design of the toilet building, "arranging the interior more reasonably to reduce the amount of land needed and make toilet use more comfortable."

Two masons also reported using higher quality materials as well as more ready-made devices (platform, plastic pipe, basin, etc., Provider #20). Mason #20 also said that he "followed the septic tank design more precisely and also builds toilets closer to people's house." Two of the three shopkeepers now also stocked more expensive types of toilet parts and the third one reported having more plastic pipes and selling more sitting type toilets (Provider #16). All providers except one (the CHW/mason) had further expanded their range of products: all also sold/installed bathrooms, 15 installed handwashing basins, and four built toilets in schools and hospitals. As mentioned in Section 1.1, Vietnam's rural sanitation targets for 2010 include that all kindergartens, schools, health stations, markets, district head offices, and other public offices in rural areas have sanitary toilets. In the study communes, an observed gap in service expansion were the buildings of the People's Committees. Recently constructed buildings did not have inside toilets, and there were no handwashing provisions alongside the toilets. Water supply, toilet maintenance and privacy at existing facilities needed improvement.

5.2.2 New Construction vs. Upgrading Unsanitary to Sanitary Models

Of the 12 providers that upgrade toilets from unsanitary to sanitary models, eight said that the upgrading business had increased, three said that it was the same as before and two that it had dropped. Upgrading is especially relevant to septic tanks. There were indications that upgrading unsanitary toilets into sanitary types rather than building new ones was not popular among masons: "I am afraid because doing the upgrading work is unhygienic, moreover, the income is not high." (Provider #17)

5.2.3 Product Guarantee

Two-thirds of the providers currently guaranteed the quality of their product or service. From the data it was not clear, however, if they had done so during the pilot project. Usually, the period was one year, but this also depended on the product. One mason said that he did not give a guarantee: "But if there is any breakdown, I will still come to fix it for the customer." (Provider # 17)

5.2.4 Other Services

The other most common service was providing some kind of financing to masons and households. As one supplier formulated it: "If one wants to sell goods, one must sell on credit." (Provider #24)

This was already common during the pilot project, but half of the providers said that they now gave credit more frequently than during the pilot project. More detail on who provided this service, how, and to whom can be found in the section below.

The other additional service was the emptying of full toilet pits and tanks and the final disposal of the sludge. At

present, only one provider in the study sample said that she also provided emptying and end-disposal services for full toilet pit/septic tanks (Provider #24). According to the promoters and the FGD participants, most households emptied, or will empty, the contents from full pits and tanks themselves and spread the contents on their own land or obtained the service from a local farmer.

5.2.5 Pricing Strategy, Market Research, and Physical Environment

Other ways in which providers said that they had adjusted to the needs and demands of their customers—households, masons, schools—since the end of the pilot project were: (i) adjustments of stocks and prices to demand, (ii) providing a good balance between price and quality, and (iii) giving price discounts during sales:

- "I buy many suitable goods." (Provider #24)
- "I look for hand basins with prices and colors that local people like." (Provider #21)
- "I buy innovative bathtubs, stainless steel hand washing basin instead of porcelain." (Provider #5)
- "I ensure quality with a price suitable to their pocket." (Provider #28)

Two-thirds of the providers said that two years after the pilot they continued to follow market developments, especially through their contacts with producers.

- "I learn through others/producers who know what types of goods people like." (Providers #7 and #9)
- "I depend on the producers to know what to supply to the customers." (Provider # 22)
- "I go to the city to search for service providers." (Provider # 38)
- "I depend on my diplomatic relations for new products and services." (Provider # 18)

5.3 Types of Toilets Sold and Installed

Of the four types of sanitary toilets promoted and installed under the pilot project, the providers said that the septic-tank model was sold and installed still more frequently today:

- "At present, people only choose this type." (Provider #27)
- "Households with resources want to build septic toilets, few now build a double vault toilet." (Provider #7)

- "Double vault toilets cost garden land and are less hygienic." (Provider #20)
- "They don't want a cheap type." (Provider #5)
- "If they can, they build septic tanks; if not, they don't want to build." (Provider #17)

The providers said that households now know about this option through the pilot project and that the different designs, construction materials, and skills were now available. Other reasons mentioned were that people now had more money and could afford this more expensive model and that they had a lower economic need for excreta as a fertilizer. They also said that the septic tank is seen as more modern and hygienic, that it looks tidier when installed in the yard and is more suitable for bathrooms (Figure 20). The providers themselves said that they too preferred septic tanks over the other models, giving the following reasons:

- Greater cleanliness (11 providers)
- Higher demand (nine providers)
- Greater profit margin (four providers)

Provider #23 worded this preference this way, "It [the septic tank toilet] can be put under the bathroom, so it is tidier and it does not affect the environment" [sic].

All interviewed providers said that they installed the pit models or sold the materials for them mainly because of the poverty or the customers' lack of space and that this was also the type that such people built themselves:

• "They build it due to poverty, they don't have the resources and they need the excreta to fertilize their fields after keeping them for six months." (Provider #24)

FIGURE 20: DEMAND INCREASED FOR SEPTIC TANKS AND FULL BATHROOMS



- "When the land is narrow and crowded, there are no other choices." (Provider # 17)
- "They build the dry kind themselves." (Provider #24)
- "When they build [it], they build according to standard, the only problem is how big or small to reduce expenses." (Provider #21)

Two shopkeepers (Providers #16 and #28) further reported a trend towards the sitting-type toilet. This type is especially preferred by the better-off customers.

5.4 Gender Roles

All providers stressed that in sales and construction they followed the wishes of the customers. According to their experiences, men generally wanted to build bigger: "They build big, nice, and monumental [toilets]." (Provider # 22) Women were more economic, wanted to build simpler models and preferred squatting toilets, which are cheaper. The FGDs (reported in Chapter 6), the interviews with the promoters reported in Chapter 4.4, and the interview with one of the commune leaders confirmed that women played a leading role in the market, but that couples made the decisions jointly. As the interviewed head of a Board of Culture and Communication said:

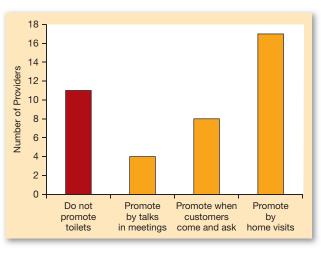
> "In families here, the wife and the husband discuss with each other about construction of toilets. The wife is the one who manages the money, but the husband manages the construction. After selling some pigs, the wife will keep the money. They estimate the costs for bricks, stone, cement, then call masons to do the construction."

In reference to gender roles in the sanitation business, several providers said that they did this together with their wife or husband. Five providers (two suppliers, one contractor, who also makes ferro-cement rings for septic tanks, one mason/supplier of building materials, and the CHW/ mason) said that they ran their business together with their spouses (four wives and one husband) (Figure 21). One supplier also mentioned help from his grandchildren.

5.5 Sanitation Promotion by the Providers

Although marketing through promotion activities was part of the providers' training developed by IDE, half of the interviewed providers said that currently they did not do any toilet promotion activities (Figure 22). The others said that





PROMOTING SANITATION, BY METHODS USED

FIGURE 22: NUMBER OF PROVIDERS WHO REPORTED

Source: Provider interviews, this study (N=21)

they promoted sanitation mostly by home visits. They were a mix of masons, contractors, and providers with a common characteristic of a relatively low education level: all but one had primary school with, at most, some years of secondary education.

Eight providers gave information and promotion materials when potential customers came to their business and four still went and talked about sanitary toilets at meetings (Figure 22). None of those promoting sanitation had developed new promotion materials. Only six providers mentioned that others (VWU leaders, VH, CHW) also did toilet promotion

FIGURE 21: INTERVIEW OF FEMALE PROVIDER

activities. Instead of using marketing instruments such as leaflets, the providers said that they relied on their relationships, network, and reputation in the commune to get new assignments.

5.6 Sales, Income, and Types of Customers

The providers interviewed said that toilet construction now ranged from one toilet per two months to 20 toilets per month, with an average of seven per month. Sales of construction materials ranged in value from 4 to 61 million VND (USD226–3,424) with an average of 20 million VND (USD1,130). Four providers had average sales of VND 4 million per month, two sold to a value of some VND 10 million, one sold VND 40 million per month, and one VND 61 million (USD3,424). Only three providers had a steady business throughout the year, however; for the others the dry season at the end of the year was the busiest.

Overall, 16 providers said that they had more sanitation customers now than during the pilot project; while 13 said their volume of sales had increased since 2006. Two providers said that the number of customers was the same and three said that they had fewer customers. Of these, one said that the commune was becoming saturated with toilets and the other blamed the recent drop on the economic crisis.

Asked how their business had changed, 19 of the 21 providers said that they now carried out more new construction than under the pilot. Nine also did more upgrading, four had seen their material sales to masons increase, three sold more materials to households for self-construction, and three did more repairs.

Profits and income had also increased according to 14 providers. The reasons given by those who had seen their business increase were the growing demand for good toilets due to economic growth, the reduction of land for open defecation, and the local availability of materials and services:

> "In the past, they [the customers] had to go to the city to buy sanitary goods, now they can buy them here." (Provider #24)

As a result of the increase in business, 14 of the 21 providers said that their profit had increased since the end of the pilot project. On average, they had multiplied their profit almost 2.5 times, but with large individual differences (a range in growth from 2% to 300%). For three providers, their profit had remained the same, two reported a drop, and two did not know. About half of the providers (10) said their profit on all toilet types was the same, while five said that they made more profit on the expensive models (semi-septic and septic tanks).

However, not all could make a living from their businesses, although all but one sold other goods and did other construction work than for sanitation purposes alone. Out of 21 providers, five did other work to add to their income, 15 were able to make a living from their business and one did not answer.

Exactly what proportion of their businesses was specifically related to sanitation and how this has changed relative to overall change was not asked, but from the conversations and the display of goods, the study team estimated that about 10% of the income of providers comes from sales of toilets.

Asked about the type of customers, 12 of the 20 providers who answered this question said that they had all kinds of customers: better-off, middle class, and poor families. Seven said that they had mainly middle-class and better-off households, and one said that his customers were mainly poor.

Asked if they undertook any action to assist the poor in acquiring sanitary toilets, 12 providers said that they gave easier terms of payment, seven said they accepted a lower profit, and one said people bought their own materials, transported the materials themselves, and/or carried out their own construction. One other provider said that he adjusted the design. More details on credit to customers is given in Section 5.8.

5.7 Provider Networks

During the pilot project, IDE had encouraged the providers to form provider networks, whose members cooperate in sanitation production, procurement, sales, transport, construction, and other sanitation services.

From the providers' interviews it was learned that in the study sample these networks have been sustained. This was the case in two-thirds of the study communes in Thanh Hoa province and three-quarters of the study communes in Quang Nam province. Some networks could mobilize ten members and one network even had between 20 and 30 providers.

The networks were larger and more developed in the study communes in Quang Nam province (that is, they provided a wider range of services). The average size of networks in Quang Nam was 5.5 members, against 3.7 in the study communes in Thanh Hoa.

According to those interviewed, the networks are important, because they make it easy to refer customers to other network members and, if so desired, give a one-stop service, that is, the customer orders what he or she wants and the network members do everything. Moreover, the masons and contractors can take on larger jobs and cope with peak times and all members can keep up more easily with new developments.

Working in groups already existed before the pilot, but the project enhanced the mechanism:

"After training, many people leave one group and set up a new group, they build it up in the way that the project trained them. There are many new workers, so the number of members increases." (Provider #12)

Those interviewed said that members of networks were masons, suppliers of cement and other building materials, sellers of ceramic wares and producers of septic tank rings. Network members mostly refer customers to other members or provide services and goods as a package. Those interviewed

stated that networks were an important means of getting business. Half of the masons interviewed said: "People invite the group to build, if they know one member of the group."

However, in Hau Loc, which has the largest network, one member remarked:

> "Building a toilet is a small project and it involves only a few tasks. Moreover, masons don't know how to fit (install) a water system, so it is difficult to cooperate." (Provider #28)

This confirms the other findings that sanitation marketing must be part of a large business or combined with other work to be sustainable for the providers.

5.8 Types of Credit

Virtually all providers—contractors, suppliers and masons—said that they gave some kind of credit service to their customers (Figure 23). Twelve provided credit to households and three also to masons, contractors and public institutions (schools, health centers). All said they did so to all categories of people, better-off or poor. What was important was that they knew the families and could be sure that they would pay. As one supplier said: "Let people in whom I have confidence have some credit." (Provider #21)

Figure 23 also gives an overview of the kind of credit provided. Providers said that they used a variety of financing services, mainly to enable poor people to install toilets. The most common were interest-free loans without down payment and no time limit (14 cases). They were followed by interest-free loans with time limit and with or without down payment (seven and six cases respectively) and by payment after delivery (seven cases). Those accepting down payments said they either decided the amount per case or asked for 50–70%. One of the suppliers stressed the limited size of the credit: "I can't do great [amounts], I am not a company which can transfer money." (Provider #24)

The providers said that their repayment conditions were anything from "pay as soon as they can" (two providers), "within one month" (one provider) to one to two months (two providers), and three months (one provider), while

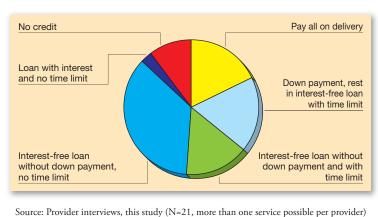


FIGURE 23: NUMBER OF PROVIDERS WHO REPORTED PROVIDING DIFFERENT TYPES OF CREDIT TO CUSTOMERS

one said: "I let some people in whom I have confidence owe money for three to five months." One provider said that he charged interest like the bank, but only after two months (Provider #20). From the conversations it emerged that the providers gave credit to about one-third of their customers.

5.9 Providers' Origins and New Career Opportunities

Of the 21 providers in the study sample, ten had completed primary education, seven had some years of secondary education, three had completed secondary education and one had a college degree. The average age was 46. The largest number of providers had previously worked as part-time masons (12) or traders in agricultural or construction materials (5). Others had been full-time farmers (2); electrician (1); ring casters (2); well digger (1); and CHW (1). The total is more than 21, because some had done more than one job previously.

Most providers had worked first as part-time masons and had gradually expanded their business through training by IDE, learning from others, and self-development. Two-thirds of them said that they worked full-time throughout the year, although their sanitation business was not spread evenly across the year. The others reported that they worked parttime for all or most of the year. All of them said that these work patterns had not changed since the pilot project.

In Box 5, three former masons relate how the sanitation marketing project gave them the opportunity to develop their career further by direct training, peer learning and the toilet construction manual.

BOX 5: RURAL SANITATION MARKETING PROVIDES CAREER OPPORTUNITY: FROM FARMER TO ENTREPRENEUR

The first mason had been a farmer until 1997. In 1999 he began selling building materials. Until 2003 he only sold cement, bricks, and iron and steel bars. In 2003 the pilot project trained him to sell sanitary goods. Since then he has continued to expand. He now sells tiles, plastic goods such as pipes, and sanitary wares such as sinks, toilets, and hand basins.

The second mason had quit secondary school after the first year and began working in 1997. During the pilot he noted that work was increasing and in 2006 he started a contracting business. At the time of the case study, he and his wife had an enterprise with 15 paid male workers.

The third mason originally was a poor farmer. In 1996, he took up masonry part-time. In 1998, he became a fulltime mason, working in shifts with six other masons, mostly friends and relatives. During the pilot project toilet demand increased, so he decided to specialize in sanitation. He was not trained by IDE, but learned from the project manual and other masons. He said that he belonged to a network of 20 masons and that customers came to him also from other communes for his skills and good price-quality mix. Normally, the network built about eight toilets per month, two masons for each toilet. The income of his family of five had increased and his life had improved. Some customers were late in payment, but they were people from his own commune, so he was not worried that they would not pay. To his great happiness, his oldest son had followed in his footsteps and is now also a mason.

6.1 Households Who Built a Toilet During and After the Pilot

Focus group discussions with some participatory tools (time line, card sequencing, service and toilet ranking for user satisfaction, and guided group discussion) were used to obtain the experiences and views of the households who had built a toilet during the pilot and afterwards. In total, 61 householders participated in the sessions, 27 women and 34 men. Of those, 35 had built their toilet during the pilot project and 26 afterwards. Fifty-six were farmers, two were businesswomen, two were commune workers, and one was a photographer.

6.1.1 Promotion of Toilets Among the Target Groups

In the FGDs, the participants were asked to list the sources of information that had been important to them in their decision to build a sanitary toilet. In total, the 61 participants mentioned ten different sources (Table 7). The totals add up to more than 61 because more than one source could be mentioned.

Table 7 shows that the CHW and other health staff were the most important, followed by the VWU leaders, radio (especially the commune radio and loudspeaker broadcasts) and other village and commune level workers.

Figure 24 shows the differences between the FGD participants who built during and after the pilot (35 participants) and afterwards (26 participants). The participatory scoring confirmed that the health workers and women leaders (VWU) were the most important both during and after the pilot. This is in line with the findings in Chapter 4, where the promotion methods used by all promoters after the pilot were reported. The participants also mentioned officials from the commune level, such as the commune chair and vice chair, who were not in the village promotion teams. Participants who built after the pilot mentioned the VHs less often, reflecting the reduced activity that the promoters themselves also mentioned.

TABLE 7: MOST CITED SOURCES OF INFORMATIONABOUT TOILETS

Rank	Source	# of Participants Citing Source
1	CHW/Health staff	34
2	VWU	25
3	Radio (commune radio/loudspeaker)	23
4	Village/Commune workers	21
5	Village Meetings	19
6	VH	15
7	Other Unions/Coop Groups	13
8	IDE	4
9	People's Committee	4
10	Informal (neighbor, relative, spouse)	4

Source: FGDs of toilet owners, this study

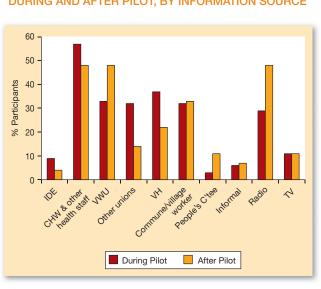


FIGURE 24: FGD PARTICIPANTS WHO BUILT TOILETS DURING AND AFTER PILOT, BY INFORMATION SOURCE

Source: FGD data, this study (more than one source per participant possible)

More noticeable is the large role that the participants have given to the information spread through the commune radio (the village loudspeaker system), for which the promoters wrote their own texts, even after the pilot project had ended.

Few mentioned IDE workers as a source of information; this finding is consistent with information obtained by IDE staff who reported that they worked through local promoters and had no direct role in implementation.

Printed media, materials, and masons were hardly mentioned. Of the participants who had built their toilet during the pilot, four mentioned the project brochures, two newspaper articles, two advertisements, and one the mason. Among those who built or renovated afterwards, two said masons, two the project brochures, and one the advertisements.

6.1.2 Toilet Construction Methods

Both households that built their toilet during the pilot and afterwards overwhelmingly preferred to buy the materials themselves and to hire a mason to do the construction. Many also preferred to transport the materials themselves. Only two families in both groups built the toilet themselves or helped the mason (Table 8).

The toilet investment costs varied from less than one million VND to over 10 million, as costs depended greatly on the size of the toilet and the materials chosen. Some people included a shower or washing facilities or built a full-fledged bathroom.

The average investment of the FDG households who built their toilet during the pilot was higher (7.1 million VND) than that of households who built their toilet afterwards (5.5 million VND). The reduction in investments is higher still when it is taken into account that each year the prices of materials and labor have increased.

There was no difference in preferred toilet location: over 80% of those who built their toilet during the pilot and afterwards built their toilet in the yard.

6.1.3 Reasons for Toilet Construction

The main reasons cited by FGD participants for building a toilet were (i) to improve health of family as well as community; (ii) to meet the Vietnamese standard for sanitary toilets; (iii) to help the environment; and (iv) to benefit the community (Table 9). There were some differences between the two groups, but they are too slight to ascribe any meaning to them.

It is interesting that very few of those who built a toilet either during or after the pilot project mentioned convenience and privacy as motivating factors. This was not different for the women participants. The hypothesis is that this is a reflection of the context of the program, with toilets promoted through the local government staff and FGDs arranged through the VHs.

6.1.4 Type of Toilets

The FGDs revealed that the (semi-) septic tank model, already very popular during the pilot project, has increased in popularity and is the preferred model. Even the lowest income households preferred to save until they could install this model, rather than install a cheaper type. In families with double vault composting toilets, husbands and wife

	Materials S	Supplied By	Transportation	Provided By*	Toilet Built By			
No. of Respondents	Purchased Themselves	Provider	Themselves	Provider	Themselves	Mason and Themselves	Mason	
During pilot (N=35)	31	4	14	19	1	1	33	
After pilot (N=26)	26	0	8	15	1	0	25	

TABLE 8: ARRANGEMENTS OF FGD PARTICIPANTS FOR TOILET CONSTRUCTION DURING AND AFTER PILOT

Source: FGDs, this study; * 5 no reply

TABLE 5. HEAGONG HOUGH										
Reasons FGD Participants Gave for Building Their Toilets	Cleanliness	Pollution / Environment	Health	Good Community	Health Education	Economics (Could Afford)	Sanitary Standard	Modern Family	Convenience	Privacy
Participants who built during the pilot project (N=35)	13	17	21	8	0	4	18	2	4	2
Participants who built afterwards (N=26)	6	12	12	13	1	5	14	2	9	0

TABLE 9: REASONS HOUSEHOLDS GAVE FOR BUILDING A TOILET DURING AND AFTER PILOT

Source: FGDs, this study

both empty the vault to use the compost on their rice, maize, and tobacco fields. Children do not want to do the work because it is unfamiliar to them and they dislike the smell. The couples also do not like the work. They find it time- and energy-consuming, dislike the smell, and fear negative impacts on their health. They said that they continue using the compost for economic reasons, but that in future they would try to build septic tank toilets, because their children expect this and it will be better for hygiene and health.

6.1.5 User Satisfaction

Satisfaction of the owners with their toilets was high. The vast majority said that they were happy with the models, the design, the service, the cost, and the ease of operation. However, eight participants reported problems with their toilet (clogging, one pit of the two vaults no longer usable, invasion of rainwater into the tanks, and toilet walls that were not rainproof). Clogging problems come especially from using plain paper instead of toilet paper for anal cleansing or not using enough water for flushing. Households with septic tanks sometimes use chemicals to reduce the speed of filling up. Twice a year, the husband will empty a ready-bought package in the tank to soften the deposits and then add water to flush out the waste.

6.2 Households Without a Sanitary Toilet

In total, there were 60 participants, 27 women and 33 men, with no or unsanitary toilets. Fifty-one were farmers, five housewives, two food sellers, one fisherman, and one retired person. Ages ranged from 25 to 76 years, with an average of 52 years. The purpose of the sessions was to see why they had not installed a toilet, if they were still interested, and if the promotion and/or services could be improved for this group during continuation, replication, and scaling up.

6.2.1 Access to and Interest in Toilet Promotion

According to the FGD participants, the toilet promotion activities had reached all but three of them. One lived in an isolated place in the mountains and two were working elsewhere and had not heard about the toilets from other people either. All mentioned the CHWs, VWU leaders, and VHs as their main sources of information, but participants were not asked when they had actually learned about the toilets—during the pilot project or later. The commune loudspeaker and TV were other key sources of information mentioned by this group (Table 10).

On average, participants in Thanh Hoa province reported more information sources than those in Quang Nam province. Only two participants mentioned masons. Most participants said that the promoters gave messages of cleanliness, health, and adherence to national standards on sanitation:

- "Each house must have a toilet." (Participant #33)
- "The toilet must be one of the standard types." (Participant #21)

Most participants mentioned village meetings, home visits, meetings of the VWU, and messages over the commune loudspeaker as their sources of information.

TABLE 10: SOURCES OF INFORMATION ON TOILETS GIVENBY THOSE WHO HAD NOT YET BUILT A TOILET

	Total	Hoa	Nam
CHW	53	41	12
VH	38	36	2
Radio/loudspeaker	38	32	6
TV	21	20	1
Women leader	19	12	7
People's Committee	16	12	4
VWU	15	7	8
Neighbors	15	14	1
Community worker	14	8	6
None	3	2	1
TOTAL	232	184	48
	VH Radio/loudspeaker TV Women leader People's Committee VWU Neighbors Community worker None	VH38Radio/loudspeaker38TV21Women leader19People's Committee16VWU15Neighbors15Community worker14None3	VH 38 36 Radio/loudspeaker 38 32 TV 21 20 Women leader 19 12 People's Committee 16 12 VWU 15 7 Neighbors 15 14 Community worker 14 8 None 3 2

Source: FGD data, this study. More than one source per person possible.

6.2.2 Current Places of Defecation

Of the 60 participants, 49 said that they used only one place of defecation; the others used two places or more (Table 11). Almost half (28 households) had a traditional (unsanitary) pit latrine and 16 participants shared toilets, so that 44 out of 60 households without sanitary toilet still use some type of toilet.

However, around three-quarters of the participants said that they (also) defecated in the open. This could be the garden, the field, the beach, and at the river. Nevertheless, one-third of those reported using open defecation also said that they then practiced the "cat method," which is the lowest rung on the sanitation ladder and a safe alternative if no toilet is at hand. (WSP 2007)

6.2.3 Reasons for Not Installing Sanitary Toilets

For all but one participant, the reason for not building sanitary toilets, in spite of having been reached by the promotion, was their lack of funds. Only one man said that he was not interested in building as long as he could not build a new house. The others all said that they wanted to build a sanitary toilet and a quarter of them have already set aside some money. Half of them also know how much they want to invest: VND 3–4 million (6); 4–6 million (6); 6–10 million (10); and more than 10 million (5).

The reasons they mentioned for wanting to construct a toilet were, in order of frequency: cleanliness, safeguarding the environment, convenience, health, public interest (for the commune), adherence to the Vietnamese toilet standard, privacy, and importance for their children.

According to the participants, husbands and wives had the same opinion: nine out of ten participants said that in their families they agreed on the need for a sanitary toilet and the type that they wanted to install. Almost all households wanted a septic tank. Only one participant mentioned that the husband had a different priority ("a good house first"). In three households, the husband and wife each wanted a different type of toilet and in one family the parents and children held different views on which toilet was best to install.

TABLE 11: PLACES OF DEFECATION GIVEN BY FGD PARTICIPANTS WITHOUT SANITARY TOILET

		Op	en Defeca	tion		Shares Toilet			Other		
Places Mentioned	Garden	Open Field	River/Pond	Beach	Total	Neighbor	Relative	Total	Traditional Toilet	Dug Latrine	Total
Thanh Hoa (N=29)	4	3	0	9	16	5	1	6	17	3	20
Quang Nam (N=31)	0	24	2	1	27	6	4	10	11	19	29
Total (N=60)	4	27	2	10	43	11	5	16	28	22	49

Source: FGD data, this study

		Loan fr	om Bank				Plan Other Ways of Financing				
Province (# of Participants)	2 yr	3 yr	≥4 yr	Unspecific Term	Total Who Want Bank Loan	Never Want Bank Loan	Savings	Children's Support	Relative's Support	Loan VWU	Subsidy
Thanh Hoa (N=29)	4	11	9	0	24	4	10	5	3	3	0
Quang Nam (N=31)	0	0	0	5	5	24	8	0	0	0	10
Total (N=60)	4	11	9	5	29	28	18	5	3	3	10

TABLE 12: PREFERRED FINANCING OPTIONS FOR HOUSEHOLDS WITH A TOILET

Source: FGD data, this study

6.2.4 Suggestions for Overcoming Constraints

Most participants had clear ideas about how they wanted to finance a new toilet (Table 12). In Thanh Hoa province, families favor bank loans, but in Quang Nam province, many "don't dare to borrow for fear of not being able to pay back the loan." Here, those without toilets prefer to save or get loans from relatives or through the VWU (savings and credit groups) and also suggested that the government should subsidize toilets for the poor. Under the national Clean Water Program, communes can apply for a one-year allocation of a loan fund, under which individual households can get an interest free or low interest loan of maximum 4 million VND each for a toilet and clean water supply. However, the amount allocated is limited and is for only one year and households are reluctant to apply because of the administrative requirements.

The FGD participants mentioned a number of ways in which they themselves could reduce the costs to make installation affordable:

- Transport the materials themselves (six households);
- Family constructs itself (two households) or its members help in construction (three households);
- Buy the material in stages (three households);
- Employ the mason in stages (three households);
- Get training for self-construction (six households);
- Get detailed cost-reduction advice from a mason (seven households);

• Learn about experiences from households that have already built a toilet (six households).

One participant also wanted to know more about extra running costs for maintenance and to reduce the sludge.

While virtually everyone knew about the sanitary toilets, the different models and their costs and the benefits, those who had not yet built a sanitary toilet said that they still wanted more detailed information to help them make a decision on installation (Table 13). The priority information gaps that they mentioned relate to cost issues. They want greater detail about the cost of the toilet components, building in stages, ways to finance the costs, and the costs of building a toilet in stages. The table below summarizes other information needs such as toilet models and designs, where one can buy cheaper materials, and cost and safety of sludge disposal.

On the other hand, three participants were very explicit about not wanting any more information and promotion. As one participant formulated it:

> "I don't like to get any more information. If the government gives money, I build a toilet. If not, I don't build." (69-year-old farmer in Hai Thanh commune, Tinh Gia district, Thanh Hoa province)

TABLE 13: TOPI	TABLE 13: TOPICS ON WHICH FGD PARTICIPANTS WITHOUT SANITARY TOILET WANTED MORE INFORMATION										
Province (# of Participants)	Cost to Construct in Phases	Costs Per Component	Ways to Cover Costs	Cost Ranges Per Toilet Type	Cost Ranges for Different Models Per Type	Urine as Fertilizer	Design Life	Fair Price	Cheapest Provider	Sludge/ end Disposal	
Thanh Hoa (N=31)	29	28	28	23	26	1	0	0	0	0	
Quang Nam (N=32)	3	4	4	4	4	1	6	1	3	3	
Total (N=63)	32	32	32	27	30	2	6	1	3	3	

Source: FGD data, this study

6.3 Observed Quality of Toilet Construction and Hygiene

In this section, the indicative results from some toilet observations are reported. The purpose was to get an indication of the extent to which the toilets constructed under the pilot and afterwards met the standards of MOH for construction and hygiene, as detailed in Annex 7.

The hygiene standards vary by type of toilet, but generally they reflect the following: enough water for flushing, no bad smell, no flies, no stagnant water/urine on floors, and no excreta/excreta smears in pans, etc., no mosquito larvae in water in or near toilet, no leakage from pit or tank, and a rainproof superstructure.

In each study commune, the team visited the toilets of three FGD participants together with the mason(s) who had built them: two from owners who were satisfied and one who was not satisfied. The reason for the chosen ratio was the very low number of dissatisfied users in the FGDs. Four more toilets were visited to ensure that all toilet types were represented. In total, the team members and local masons observed 28 toilets together. The types observed were double-vault pour-flush (6); ventilated improved pit (VIP) (2); single-vault pour-flush (1); and septic tank (19).

Table 14 gives the details of when the toilets were constructed and by whom. For one toilet, the year of construction was

TABLE 14: NUMBER OF TOILETS WITH OBSERVED QUALITY
BUILT DURING AND AFTER PILOT, AND MASON TRAINING

When Built:	No. of Toilets	Mason Trained Under IDE	Mason Not Trained Under IDE
During pilot	18	7	11
After pilot	9	6	3
Total	27	13	14

Source: Structured toilet observations, this study

missing. Of those constructed during the pilot, IDE-trained masons built one-third. For the toilets constructed after the pilot project this ratio was two-thirds. This could be ascertained because the local masons knew who had built each toilet and if those persons had participated in the IDEorganized training or not.

For scoring the quality of construction and hygiene, each toilet could get a value of one (lowest score) to five (highest score) for each indicator that the MOH included in the standard set for the particular type of toilet. The maximum score on construction and hygiene was 5 x Y, in which Y was the number of indicators for the toilet type concerned. The actual score for quality of construction and hygiene of each toilet was the real score on scale 1-5 as a percentage of the maximal score.

Period	Average Age of Toilet (in Years)	Average Score for MOH Construction Standards (N=28)	Average Score for MOH Stan- dards on O&M and Hygiene (N=28)
	6+	80%	78%
During unilet	6	83%	80%
During pilot	5	89%	89%
	4	95%	92%
After pilot	1	93%	100%

TABLE 15: OBSERVED MEETING OF MOH STANDARDSFOR TOILETS BUILT DURING AND AFTER PILOT

Source: Structured toilet observations, this study

Table 15 gives a summary of the average percentages achieved in each group (toilets built during the pilot and afterwards). The toilets built during the pilot project scored an average of 85% of the maximal score on the MOH construction standards. The toilets built after the pilot had an almost 100% score. However, from the figures in Table 15 this difference seems also to be related to the toilets' ages. The worst scores for construction and hygiene standards (not reported in this table) were 57% and 53% (both only one case) and were still above the 50% level.

On average, toilets built by IDE-trained masons had met 88% of the national standards, and those built by other masons 90% (statistics not reported in the table). Who had built the toilets thus made no difference for the adherence to national construction standards.

Individual observations further indicated that toilets that scored lowest had mostly been built with cheap materials to reduce construction costs. The most commonly observed problems were signs of leakage in the ground and bad smells, indicating cracked rings or leakages at connection points.

The team also observed the place where people said they washed hands, if they reported this habit. Of the 22 house-holds with this reported practice, 17 had soap present at the usual handwashing place. Some toilet training of children was observed (Figure 25).

FIGURE 25: GRANDFATHER HELPS GRANDSON USE THE TOILET



6.4 Views of the Toilet Owners

User households were generally very satisfied with their toilets, irrespective of who had built them and when:

- "It was built by good masons, good quality." (Participant #3)
- "The materials were good." (Participants #15, 18, 19, 20, 21, 25, 28)
- "It has ventilation and was built with good bricks." (Participant #26)
- "Everything is good." (Participant #3)

However, some users also reported some problems with poor construction, referring to tank leakages or flooding of tanks by rainwater:

- "The masons who built the toilet were not good, because they were not trained under the sanitation project. I am dissatisfied that the walls are not waterproof." (Participant #4)
- "Sometimes, the excreta storage tank is full with water, I must get the water out." (Participant #24)
- "I must pump the water from the tank by force." (Participant #23)

VII. Support from the Stakeholder Institutions

Sustaining rural sanitation marketing and its results in the villages also needs an enabling environment from commune to national level. This chapter explores the attitudes and the continued support from the different types of stakeholders: the People's Committees and the health authorities at commune, district, and provincial level. The main stakeholders at the national level are the Ministry of Health, which is responsible for rural sanitation, and the RWSSP and its donors in rural sanitation.

To assess the nature and sustainability of support from the civil servants at higher levels, ten semi-structured interviews were held with the vice chairs of the commune People's Committees or the heads of Cultural and Social Affairs. At the district level, interviews were held with the leadership of the district People's Committees and the district health officers. At the provincial level, the vice directors of CERWASS were interviewed, as well as the vice director of the Center of Preventive Medicine in Quang Nam province.

At the national level, interviews took place with the authorities of CERWASS, the health expert and the DANIDA advisor of the Preventive Health Department in MOH, the vice heads of Education and the Propaganda and Training Unit of the VWU, the coordinator of Rural Sanitation Marketing of IDE, the country director of SNV, and representatives of the Australian Government Overseas Aid Program (AusAID) and UNICEF.

7.1 Support of Sanitation Marketing by Communes

While the villages have been the core locations of rural sanitation marketing, they have been supported by institutions at other levels, especially the local government and preventive health authorities in the communes and districts. Communes are the lowest level of local governance and cover seven or eight villages. Table 7 showed that FGD participants who installed toilets also cited commune workers and officials as important sources of sanitation information only less than the village promotion teams of CHW, VWU and VH. FIGURE 26: INTERVIEW WITH COMMUNE LEADER



In the interviews the commune authorities were asked if and how sanitation marketing support was sustained after the pilot project had ended (Figure 26). Table 16 gives an overview of activities by communes to support sanitation marketing, showing that the range of activities is quite divergent.

7.1.1 Reasons for Continued Support

In their interviews, the leaders in the more supportive communes gave several reasons for the continued support. Motivating factors given for including sanitation in annual plans and resolutions and continued promotion and toilet checks by the CHWs, VWU and VHs were the good results of rural sanitation marketing and (the annual competition for the title of "cultural village." (Box 6)

As one chairman of a commune People's Committee explained:

"Every year, the district government evaluates villages for the title of 'commune-level cultural village' and 'district-level cultural village.' To get the title, a village must meet the requirements regarding the percentage of households using clean water and sanitary toilets. The district and communal governments verify the conditions before the recognition. However, if a village does not meet the criteria, there is no sanction. We also use these criteria for the title of 'cultural family.' For Communist Party members

TABLE 16: COMMUNE ACTIVITIES TO SUPPORT SANITATION MARKETING

Commune	Sanitation Steering Committee	Annual Resolution or Plan on Rural Sanitation	Concerted Action of Unions	Monitoring Construction & Quality of Work	Monitoring Sanitation Coverage	Nomination of Cultural Families	Saving Clubs, Loan Program
Hai Loc	No data						
My Loc	х	х		х	Х	х	х
Hai Thanh			х		Х		
Tinh Hai			х				
Binh Trieu		х	х		Х		Х
Tam Ahn Nam		х				х	
Tam Hoa		х	х	х	Х	х	х
Binh Hai					х	х	

Source: Commune authorities' interviews, this study.

and the officials of the commune and village, these criteria are also included in the assessment of the fulfillment of responsibilities and duties."

BOX 6: CULTURAL HOUSEHOLD, VILLAGE, COMMUNE, COMMUNAL HEALTH STATION, AND DISTRICT

"A cultural household, village, commune, communal health station and district meet four criteria: clean water, sanitary toilet, solid waste treatment according to national regulations and treatment of animal feces as per the national regulations. These are also taken into account during the annual evaluation of the local officials/Communist Party members on the fulfillment of their responsibilities.

If you are a Communist Party member and you are an official or a state worker, and your family does not have a sanitary toilet, you cannot be evaluated as a good official and a good Party member and your family cannot be evaluated as a cultural family."

-Vice Chairman, Tinh Gia District People's Committee

7.1.2 Reasons for Less Support

Local commune leaders in less supportive communes gave several reasons for the lack of support for the sanitation marketing strategy after the completion of the pilot project:

- They were of the opinion that some families would continue to practice open defecation for reasons of poverty and habit.
- They accepted that some households will still build new houses with old, unsanitary types of toilets, because they see sanitation investments as private investments instead of an issue of public health and environment.
- They pointed out that families who lived in the new Nghi Son Economic Zone were reluctant to build sanitary toilets as long as they risked being expelled and their land turned into industrial sites, as happened for the Petrochemical Refinery Complex Project (100 hectares), the FPC project (10 hectares), and resettlement and road building (200 hectares).
- Some complained that the promoted toilet models and designs were not suitable for the very narrow plots in their communes.
- They have other priorities regarding public health than household toilets. In Hai Thanh commune, for example, the priorities of the Commune People's

Committee are a cemetery for Buddhist inhabitants so as to stop contamination from informal burials in the hills through rainwater runoff, and a solid waste collection and treatment plant:

"Environmental sanitation is a problem in the area. Our first problem is solid waste. It is estimated that with two kilograms of solid waste per household per day, we have six tons of waste a day. Our seafood is packed in nylon bags and sold to the Thanh Hoa factory, the local end customers and the reefers coming from various places. Nylon waste bags are as much a problem as household waste. We do not have any garbage classification, segregation and treatment. All that we can do is encourage people to dry waste, then dispose or burn it. Plastic pieces or nylon bags should be left separately, as they burn only partially and cause toxic air and it takes a long time. We have proposed a land area for the disposal and treatment of collected waste to the district government and are waiting for their approval. It is very difficult for us when we do not have land for treatment."

In addition, there were quite divergent views on the nosubsidy policy, as addressed in Section 7.2.

7.2 Sustainability of No Subsidy Approach

A specific issue that emerged in the discussions with commune leaders was the acceptance of the strategy of the pilot project not to provide any toilet subsidies, but to focus on improving the local market, lower cost toilets, and low-cost toilet loans. The interviews revealed two opposite outcomes on acceptability and continued support of this strategy:

7.2.1 Positive Attitudes and Follow-Up

Several local authorities stressed that in the course of the pilot project they came to appreciate the strategy of supporting capacity development and not individual toilet subsidies.

They stressed that sanitation marketing with training and time for promotion was both more effective and sustainable than providing free toilet parts without promotion. Several commune leaders recalled that these materials were either not used at all or for other purposes, such as animal sheds and that if used for building toilets, these toilets were not always used or not used in a hygienic manner. As one commune vice chairman said:

> "After three years of implementation, we found that it takes time for people to raise their awareness. In other projects in the past, the Government even provided pre-cast slabs for local residents to build toilets, but without promotion, they did not know the usage and used those slabs for walls of pig and cow barns. With this project, it seemed to be difficult at the beginning, but after being trained and having knowledge on sanitation, many sanitary toilets were constructed. Not as many as required, but the number of sanitary toilets increased from 10% to nearly 60%. Secondly, now people have knowledge on sanitation and the habit of hand washing before eating and after using toilets. To benefit from the project, it is better to give them the fishing rod than the fish."

These leaders also appreciated that the pilot project had given training on promotion and had supplied a manual with the different toilet models and construction guidelines for continuation.

Half of the communes had also made new sanitation action plans since the pilot project, e.g., setting new toilet targets (Tam Anh Nam) and integrating sanitation improvement into other programs (Tam Hoa):

> "We will try to persuade people and hope to build about 100 toilets every year. 100% [coverage] is impossible, but we aim at 90%." (Tam Anh Nam commune)

> "What we have gained here is that we integrate the content of the project into other programs. For example, programs of economic assistance, expanding the number of 'cultural households' and creating fund rotation groups with the VWU." (Tam Hoa commune)

The communes of My Loc, Binh Trieu and Tam Hoa have also continued the toilet loan program through the Social

Development Bank and local unions, such as the VWU and the Farmers' Union, as reported by this chairman of the commune People's Committee:

> "In 2006 and 2007, we had interest-free and lowinterest bank-loan programs for poor households to construct new toilets. The Social Development Bank also has loans for development of clean water and environmental sanitation for poor people. The total amount of this program is up to 1.5 billion VND per loan."

7.2.2 Wrong Knowledge and Discontinuation of Pilot Strategy

At the same time, two commune leaders thought wrongly that the pilot project had given toilet subsidies to the poor, saying for example: "The cost for building each toilet is 1.2 million VND, for which IDE provided only 200,000 VND."

Two local leaders mentioned the discontinuity of the social loan program for sanitary households (maximum 4 million VND each for a toilet and clean water supply), including this commune head of Social and Cultural Affairs:

> "There are no credit programs for clean water and environmental sanitation in our commune. Some families wait until they can build a house to build the toilet. Poor households cannot afford the cost to build standard toilets. At present in our commune it needs at least six million VND to build a simple standard toilet."

In addition, several of the pilot study communes have discontinued the no-subsidy strategy. After the pilot project they accepted new toilet projects in which international NGOs have re-established the direct toilet subsidies to (poor) households, e.g., in Tam Hoa and Tam Anh Nam:

> "Recently, we were offered assistance by the Pasteur Institute for 100 households with 700,000 VND for each household."

> "Over the last two years, 2007–2008, we got a funding of 120 million VND from East Meets West Foundation for 400 toilets with [a subsidy of] 300,000 VND for each."

7.3 District Views on Effectiveness and Sustainability

In this section, the findings from the interviews with the district authorities in three of the four study districts are presented (Thin Gia district in Thanh Hoa province and Thanh Binh and Nui Thanh district in Quang Nam province). A planned interview with a district stakeholder in Hau Loc district did not take place.

7.3.1 Perceptions on Approach and Effectiveness of the Pilot Project

All district leaders interviewed stressed the effectiveness of the pilot project. Specific reported strengths were:

- *Commitment:* "IDE asked the district for a commitment to increase the percentage of households with standard toilets to (in that district) 17% within three years. At the time, the percentage in the pilot communes was below 10%."
- *Strategy:* "We were also surprised by the approach of the project. They did not provide funding for construction, but focused only on communication activities."
- Organizational support: "IDE has assisted us with a full organizational system from district level to communes, villages, and residential clusters."
- *Professional communication strategy:* "Professional communication with various methods helped change and raise the awareness of the local people on environmental sanitation and protection of the environment."
- *Increased awareness, knowledge and skills:* "The professional communication has raised the awareness, knowledge and skills to help residents overcome their specific difficulties to get access to improved toilets."
- Use of inside competition: "Different forms of competitions for different groups of people: school children, women, farmers, etc. have also raised people's awareness and adoption of sanitary toilets."
- *Technical capacity development:* "Another achievement is the technical staff who can carry out effective works with low cost."
- Lower costs and better cost-awareness: "Before the project, the residents thought it would cost 5–7 million VND to build a toilet. Now it needs only 1.0–1.2 million VND. So it is really effective from the economic aspect."

- *Greater coverage at higher speed:* "These implementation methods are very effective. The most important effectiveness is the increasing number of households who use sanitary toilets in the communes covered by the project in comparison with others. In accordance to our reports, the growth rates range from 4% to 6% per year. As for the concrete figures, you know from this morning's meeting that the percentage of households with standard toilets in the project areas has been increased from about 30% to 50% within two years, and even to 70–80% for some areas. So the number has been increased almost five times over two years. This result is really encouraging for us."
- *Less open defecation:* "Bad behaviors such as defecating in open areas have been reduced much." However, as mentioned in the heading this is a perception which was not supported by evidence.
- *Better quality of life:* "As staff, we think this [the sanitary toilets and freedom from open defecation] has made a great contribution to increasing the quality of life of the residents."

7.3.2 Perceptions on Sustainability of Approach and Results

In general, the district authorities interviewed stressed that the nature of the tested approach (technical and communication capacity building, more affordable models of sanitary toilets, no toilet subsidy) makes it possible for the participating communes to sustain the approach even after the pilot project's support has ended.

In one of the districts, the chairman of the People's Committee clearly expressed the difference between other projects and rural sanitation marketing and the implications for sustainability:

> "The approach used by IDE project is different from other projects in the areas. Some projects provide mainly material support. This approach has an advantage of being able to attract residents from the beginning. But the disadvantage is that they will stop [the support] when the project finishes."

> "IDE has a different approach. It was difficult at the beginning, because the main input was communication to provide people with the necessary knowledge,

which will lead to behavior and social changes. This is always difficult. But when people have gained knowledge and raised their awareness and changed their behavior, it will be sustainable. So although the IDE project finished in 2005, the rate of toilet building is higher every year."

The district still maintains communication activities with women through the VWU. It also organizes contests for primary school students on knowledge of sanitarily toilets and the benefits of rural sanitation programs.

Another way to sustain the sanitation program has been its integration with the program "Building Cultural Families." Cultural families must have sanitarily standard toilets. (Box 6)

Perceived limitations in the sustainability of the approach are the depletion of the promotional materials, the absence of financial allocations for new promotion materials, and the training of new promoters when existing ones are transferred. These questions were also raised at the provincial level, as discussed in the next section.

7.4 Perceptions of the Provincial Sector Authorities

Interviews were held with the authorities in charge of environmental sanitation in the provinces of Thanh Hoa and Quang Nam and in charge of preventive health in the provinces and the vice director of the Center of Preventive Medicine in Quang Nam province. Other than the districts, the provinces had not been directly involved in the pilot project. The provincial authorities interviewed stressed the perceived strengths of the sanitation marketing approach, but criticized the lack of provincial involvement.

7.4.1 Lack of Involvement of the Province

In his interview, one high official in CERWASS in Quang Nam province, who had been in that position since the early 1990s, stressed that the pilot project had been a district-level project. The provincial authorities had therefore had no role in the developing, testing and sustaining of the rural sanitation marketing approach.

> "We have been informed about the project of IDE for a long time. They came here, talked to us, talked about co-operation, but then they carried out

everything by themselves. We don't know whether they are still carrying out the project."

7.4.2 Provincial Knowledge and Appreciation of the Approach

Although they had not been directly involved, the three provincial authorities interviewed were all aware of the pilot project and perceived it as effective for the following reasons:

- Introduction of government cooperation for rural sanitation: "In the past the government failed to mobilize [the coastal communes] to construct toilets. They provided extension to farmers and fishermen and helped local people to improve their production and raise their income. However, regarding water and sanitation, though the project staff was responsible and active, they did not have a close cooperation." (Figure 27)
- *High expertise on communication and social marketing:* "IDE used various approaches for different organizations to make access [to sanitation] easier for the audience. In general, we think IDE staff is very capable and professional. They have been trained really well in communication skills. They use different forms of [of communication] and change them regularly, depending on the target subjects. They sometimes worked during the day, sometimes at night [to reach and convince the target groups]."



FIGURE 27: COASTAL COMMUNES NOT EFFECTIVELY MOBILIZED IN THE PAST

- Local supply of sanitation goods and services: "In recent years, I note that all kinds of sanitation materials are for sale right within communes, even toilet bowls. This is an advantage for local residents. And they sell sanitation equipments even in some remote areas, but I do not know who the distributors are."
- An effective approach in a difficult environment: "We consider the result that IDE achieved remarkable. They launched promotion in difficult areas: coastal areas and areas with pollution from waste."

7.4.3 Sustainability of Sanitation Marketing as a Program

Under the new policy and program (see Section 1.2 above), the provinces are in charge of implementing the rural sanitation program. After discussing the effectiveness of sanitation marketing, the provincial officials in CERWASS and the Preventive Health Department were therefore asked for their views and practices related to the longer-term sustainability of a rural sanitation marketing program.

The two aspects that emerged from these questions were the financial sustainability of the promotion support and the adjustment of the provincial policies and programs.

• *Financial sustainability:* During the pilot project, the three village promoters got an incentive of 20,000 VND (USD1.20) per month. The four members of the Commune Sanitation Steering Committee received 100,000 VND (USD6) as they had to make a monthly report. The five District Steering Committee members got 800,000 VND (USD48) per person per month for training and coordination. According to one vice director of CERWASS the support for training of trainers, monitoring and reporting, allowances to promoters and funds for drinking water at village sanitation meetings are not affordable to the province: "IDE is a good project, we should promote it, but who will pay money for the promotion?"

In his view, the local government can be effective as program implementer, but the central government should be a co-investor.

• *Current provincial rural sanitation policy and program.* Quang Nam has a policy to subsidize toilets in isolated rural areas and continues to carry out an environmental sanitation program with ethnic minorities in the mountainous areas of the province. Implementation is through self-construction, therefore without trained village masons, and with a toilet subsidy in materials. The usual toilet model is the pit latrine:

"They build dry pit toilets. The cost is not high. They excavate a pit of around one square meter. We provide them with the slab of reinforced concrete, $2m \times 2m$, 10 cm thick. And we provide them with metal sheets for roofing. The total quantity of materials is two bags of cement, 8 kg of steel and 4 m² of metal sheet. On average, [each household] gets [materials to a value of] 600,000 VND (USD36) and they have to pay for the rest. A completed latrine costs around 300,000-400,000 VND. The upper parts such as poles and roofing are removable. When the pit is full, they fill it with soil. All they have to do is to shift the concrete slab over a new pit."

The reasons for the current provincial strategy are: (i) the low payment capacity of the ethnic minorities; (ii) the low cost of pit toilets; (iii) the unsuitability of septic tank toilets; (iv) the non-availability of cement and steel for the latrine slabs; (v) the absence of local experience with and expertise in masonry work; and (vi) the high cost of bringing in masons from the delta areas. Awareness and construction have increased with this approach, but the strategic targets as set by the government have not been met.

7.4.4 Monitoring of Sanitation Progress Province-Wide

Besides provincial CERWASS, the Bureau of Agricultural Settlement and the Committee of Ethnic Minorities Affairs, and a number of NGOs also implement sanitation programs in Quang Nam province. In general, the data on activities, outputs, and results are restricted to the programs themselves. They are not aggregated at provincial level in a rolling database.

> "Information concerning the projects and sources of funding, etc. is known only by each organization and is announced only in reports. This is common for all agencies and organizations. They deal only

with the location where they work, so it may be known at the commune level, but not at district level. When a period of duty finishes, the next person in charge may not even know anything about the work of the previous period. Or nothing is left. We [CERWASS] are responsible for the evaluation [of water supply and sanitation interventions] in the agriculture sector only."

The Preventive Health Department also gets reports on sanitation coverage from their own professional lines, but no data from other programs. As a result, there is no reliable overview of progress in sanitation coverage and on differences in coverage between the different locations, populations and socio-economic groups.

A sanitation survey recently done by the Preventive Health Department of Tinh Gia district in Thanh Hoa province had a sample size of only ten households per commune, too small to be representative for the whole population. However, the budget of the district government does not allow for larger and regular surveys.

As a result of these factors, there are only general indications on rural sanitation progress:

> "Through the reports from the districts about the reduced percentage of poverty and diseases and the increased number of water supplies and sanitation facilities, I think that the development is in a positive direction."

7.5 Environmental Sustainability of the Approach

As reported in Chapters 3 to 7, the sustainability of sanitation marketing relates to the continued mobilization of demand, supply of goods and services, increase in sanitation coverage, and support from the institutional environment.

Environmental sustainability is defined here as the safe end disposal of human feces in the form of excreta from filled-up toilet pits and septic tanks. This topic was covered earlier in the responses from the promoters (Section 4.5) and providers (Section 5.2.4) and the consumers (Section 6.1). Septic tanks were generally seen as the most hygienic option and their contents were wrongly thought to be "self-destroying"—in other words, many people did not realize that septic tanks must be FIGURE 28: IN THANH HOA, THE HEALTH DEPARTMENT HAD CONCERNS ABOUT EXCRETA DISPOSAL AND REUSE



emptied regularly. Sludge can be reused, but only if well-composted, or it must be safely disposed of. Only one interviewed provider was aware of this opportunity and was thinking of offering a desludging service, but no questions were asked if this would be a sanitary service.

In Than Hoa province the authorities expressed a concern about the time taken for the composting of the excreta (Figure 28). This was not always done or done long enough to complete the composting process before reusing the treated excreta as fertilizer.

7.6 Perceptions at Country Level

At the country level, semi-structured interviews were held with representatives from CERWASS, Ministry of Health and VWU, the NGOs IDE and SNV, the donors AusAID, DANIDA and UNICEF, and a manager of a large sanitation company, Toto Industries, Ltd.

7.6.1 Effectiveness and National Potential of Rural Sanitation Marketing

In their interviews, both representatives of CERWASS emphasized that with the existing approach, Vietnam's MDG targets cannot be reached:

> "In general a lot of work needs to be done. I think it would need hundreds of years to solve all the problems of rural environmental sanitation."

> "I think we can achieve if the criterion is only to have a number of toilets built. But to have standard toilets and operate them correctly I think it's impossible."

Both were also aware of the pilot project and supported the appropriateness of the approach for Vietnam:

"We used social marketing methods in several provinces with sponsored projects, but we think the method used by IDE is really effective."

"I think the most important thing is to change residents' behavior and thinking. If people realize the necessity, they will do it [construct and use sanitary toilets hygienically] themselves even without material assistance. And the problem will be solved more quickly. The approach used by IDE is reasonable for solving the problem of rural sanitation."

Both participants stressed, however, that the national level was not formally involved:

"Actually I was not involved in the project."

"Personally I only know about the methods of social marketing and the experience of implementation in the community, but I have never been directly involved in any projects. As for the IDE project, I only took part in the meetings and read the reports."

It was further pointed out that rural sanitation implementation is at provincial level. While directives come from national level, "Each province needs to set its own objectives and its own solutions. There is no single solution for every locality." Building the capacities of the provinces was seen as the best way to realize the targets of the National Target Program.

> "I think [that] in order to do it, in the next years we need to have clear orientation, especially on the issue of rural environmental sanitation. I think the approach used by the IDE projects in Thanh Hoa and Quang Nam is reasonable. We should focus on communication."

7.6.2 Involvement of the Vietnam Women's Union

One of the key factors in the results of the rural sanitation marketing (RSM) approach is the participation of the VWU. In the interview, its national representative ascribed the good effects and sustainability of the rural sanitation marketing project to the combination of the strengths of the VWU, the availability of lower-cost toilets, and the training for the providers. She considered that the approach should and could be scaled up with and through the involvement of the VWU. The VWU has a strong countrywide network at all levels: groups, villages, communes, districts, provinces, and the central level. It has been involved in sanitation promotion since the 1990s. It is also a member of the National Steering Committee of the NTP for rural clean water and environmental sanitation.

Furthermore, the VWU started the program that provides and guarantees household loans for clean water and sanitary toilets at nominal or no monthly interest from the Vietnam Bank of Social Policy. The VWU also stimulates women to organize toilet saving clubs with monthly payments by all members. With 20 members and monthly payments of VND 30,000/person it takes 20 months for all women to have a single vault sanitary toilet, provided the cost is no more than VND 600,000. However, in reality, most families want costlier models or designs and take a much longer time to pay back their group loans, and the same happens with bank loans (see also Folkard 2009a). This has limited the number of households that can use this instrument to finance their sanitary toilet.

7.6.3 Challenges for Scaling Up

Apart from the challenge of a financing strategy that enables poorer rural households to install the type of sanitary toilets that they want, one of the CERWASS representatives said that enhanced communication requires more financial and human resources. Replication on a national scale can only be effective if the same professionalism is used. This requires a special project or program to develop social marketing at scale and implement it district- and province-wide:

> "The difficulty is who [is] to go and work for it. Social marketing, as you know, is to create the needs and provide ready goods for construction instead of direct investment in construction. But how can we create the needs without projects? We lack resources."

The CERWASS official explained that under NTP I, the percentage of funding for information and communication activities for rural clean water and environmental sanitation was less than 5% of the budget. After the evaluation of NTP I, funding for IEC became about 10% of the budget

of NTP II. This will help to expand IEC, but methods for mobilizing community participation and involvement of other unions beside the VWU should be strengthened. The representative of the VWU also stressed the need to strengthen the skills of its trainers and staff for community mobilization and participation.

A major challenge expressed by the CERWASS representative is also to have more evidence-based results on the longerterm effectiveness of IEC and social marketing investments:

> "Actually we lack information about evaluation of the projects, not only IDE. The evaluation is conducted after 5–10 years, but I don't have access to the results. So we lack information about the effectiveness or sustainability of the project."

7.6.4 Interviews with Other Stakeholders

Among the 14 partners that have signed agreements with the Ministry of Agriculture and Rural Development to support rural sanitation and clean water, AusAID, DANIDA, and DFID already provide or will provide both financial and technical support to Vietnam's rural sanitation program, while the Dutch will continue to support it financially.

AusAID

In the interview, the senior sector specialist of AusAID praised the experiments of GoVN with RSM and CLTS and the growing readiness to apply the new approaches in NTP II. For example, MOH now leads the new pilot in An Giang province as part of NTP II, with IDE in a capacity-building role. Perceived areas for support mentioned were:

- Expansion of the range of sanitary toilet models, especially at lower cost;
- An agreed-upon national rural sanitation strategy;
- Increased cooperation on sanitation between MOH and all international and national NGOs working in rural sanitation; and
- Integration of, and skills for, collecting and analyzing valid sanitation coverage statistics. Even large NGO programs lack these statistics or do not integrate them with those of the government. As part of the Participatory Poverty Assessments, the Vietnamese Government is familiar with PRA techniques for getting local data on poverty and these could well be applied in rural sanitation.

DANIDA

In the interviews with DANIDA staff, it was said that sanitation marketing is one of many good approaches to promote sanitation and hygiene. However, it was recommended to make provincial and district authorities aware of the various good alternatives and leave adoption of the particular strategy to local decision-making, as each approach only suited a certain local area/community with specific local conditions and context. Capacity building for the local government and field staff was essential in view of long-term sustainability. Further development for sanitation alternatives for serving different groups of people with different incomes, especially the poor, was also very important. In this context, DANIDA currently supports MOH to promote more sanitary toilet models, including low-cost options affordable for the poor. Together with AusAID and the Netherlands, DANIDA also provided budget support to the Rural Water Supply and Sanitation Partnership (RWSSP) National Target Programme II and was committed to strengthening the government's structure, including for monitoring and evaluation GoVN et al. 2006).

In a second interview it was mentioned that a rural sanitation strategy is needed to give stronger direction and focus to sanitation programming. However, strategy development is taking a long time, not least because it is being developed as part of a sector-wide sanitation strategy (U3SAP), which includes urban areas, under the leadership of the Ministry of Construction. Reference was also made to the new standards for hygienic toilets, which are currently in draft. These revised standards include six different models of septic tank toilets as well as some lower-cost options, but they do not yet have a philosophy and a strategy underlying the range of options and its use.

The importance of the findings on sustained sanitary toilet adoption without financial incentives to government staff and/or toilet subsidies to households was confirmed, because the resources for nationwide application are lacking and such payments were shown to be unnecessary for good results. For further policy development, new pilots, but now with MOH in the lead, will be very important to find the most cost-effective ways to help rural households adopt safe toilets and good toilet hygiene. In order to meet the raised demand, any program should include technical training of sanitation providers so that proper installation materials and good skills are used. Integration of technical sanitation training in the curricula, and the education of staff of technical training colleges are therefore other development areas for sustainability and scaling up.

Both the AusAID and DANIDA representatives interviewed were of the opinion that the international and bilateral donor community united in the about-to-be revived sanitation group would be likely to react positively to governmental demand for technical assistance in order to scale up and further develop the approach.

SNV

SNV reported on its piloting of CLTS in cooperation with three provinces in the north and providing technical assistance to MOH and UNICEF in a fourth one. The approach is a good way to enhance sanitation demands in the villages.

An anthropological study was carried out in the north to investigate motivating factors and barriers to ending open defecation and constructing and sustaining sanitary toilets. However, the study only gave a snap shot of the current hygiene practices. Further research is needed to understand in depth the disease transmission route specific related to water and sanitation for an intervention. It is relevant to develop and behavior change communication strategy based on village and commune level investigation to develop tools and tailored messages in hygiene promotion. At the same time, further research is needed to look into the enabling environment to support the institutionalization process to anchor the hygiene component into the existing health system.

In each province, core district training teams have been trained that, in turn, train village facilitators. Training of Trainers was done by Swan (Xuan) Mai College with support from SNV. This training needs to be strengthened as the anthropological study findings suggested shortcomings in facilitation skills.

The village facilitators were linked to the government structure and were the same as the promoters in the sanitation marketing project: CHWs, VWU leaders, VHs, plus school teachers. These local teams triggered local demand and help villages to make and realize village sanitation and hygiene action plans. Experience showed that the facilitation skill of these individuals is in question. It was observed that they tended to give orders rather than facilitating the process understandable given the vertical structure of the country but more work is needed in this area.

In the opinion of the country director and the head of the sanitation program of SNV, the supply component of rural sanitation marketing approach complements the CLTS approach. Rural sanitation marketing makes available the toilet designs, materials and production, and construction skills, which are all elements that are currently weak in CLTS. At the same time, SNV expressed the opinion that the RSM approach needs to promote a wider range of especially low-cost designs and construction methods, and look closer into the challenges of acquisition and transport in poor and isolated rural areas. At present, MOH has very limited options and the authorities have been enforcing construction. This was demonstrated in the three North West provinces where SNV works. In Lao Cai, the provincial authorities passed a decision to form a toilet building committee which instructs households to build sanitary latrines (septic tank, pour-flush, etc) for a 100% target by February or December 2010 Furthermore, environmentally sustainable and safe use of animal excreta, especially from pigs raised at home and by small and medium enterprises (SMEs), as well as safe reuse and end disposal of sludge from human and animal excreta need to be included in the program.

CLTS could be linked to RSM to enhance demand creation. The focus should be increasingly on local government (districts and below). This was also seen as the most appropriate level for community-based monitoring of rural sanitation progress, including access for the poor. This is the one of the main areas for SNV work to advance the sanitation and hygiene issue in the country. Sustainability and hygiene were seen as missing links for CLTS and the focus should be beyond demand creation.

The supply component of rural sanitation marketing approach was perceived as complementary to CLTS. The former made available the toilet designs, materials and production, and construction skills that were weak in CLTS.

Agreement between implementing non-governmental organizations (NGOs, UNICEF) is needed to achieve clarity and harmony on rural sanitation strategies and principles.

UNICEF

The representative from UNICEF said that the organization is in favor of adopting sanitation marketing as part of a national sanitation strategy. In that case UNICEF would be willing to support the capacity building of the government cadres, VWU leaders, and the private sector. CLTS could be adopted to enhance demand creation. The focus should be increasingly on local government (districts and below). This is also the most appropriate level for community-based monitoring of rural sanitation, including access for the poor.

Toto Industries Vietnam

An interview was also held with a manager of a large producer of sanitary wares in Vietnam, Toto Industries, on their interest in supporting the development of the knowledge and skills of rural sanitation suppliers and masons on a wider scale. His view was that Toto sells high quality sanitary goods mainly for the urban market. At present, they do not yet have a strategy for the rural market.

VIII. Scaling Up the Approach

A final research question mentioned in Section 1.1 and the ToR in Annex 1 was whether the marketing approach and results have spread to other communes and districts. This chapter goes into this question and its underlying subquestions:

- Are there any signs of the approach spreading to neighboring communes in the pilot districts (the "spill-over effect")?
- Have the pilot districts scaled up the approach to a district-wide approach or not, and why? And are there any observed impacts from this scaling up?
- Is there any evidence of spontaneous development of sanitation market development without external intervention ("parallel development")?

8.1 Spill-Over and Parallel Development

Interviews with the providers confirmed that sanitation products and services as provided under the pilot project have spread to other, neighboring communes. Six providers mentioned that they had expanded their work to neighboring communes. Five of them (Provider #s 3, 13, 14, 21 and 22) were members of sanitation networks, the other (Provider #20) was an independently working mason.

In addition, almost all providers (19 out of 21) said that since the pilot project many other masons and shops in their areas had taken up the construction of sanitary toilets and the sale of sanitation goods.

District authorities in Tinh Gia and below in Nui Thanh district confirmed this development: "The promotion activities have positively affected other areas which are not under the project."

In addition, a district public health official in Tinh Gia district in Thanh Hoa province reported a more autonomous "parallel development" in his area:

> "But I think that the existence of Nghi Son Economic Zone (Figure 29), the development of the economy of the country in general and the local economy in particular, also have certain impacts. In Hai Ha commune, for example, in the past only around 10% of

FIGURE 29: TINH GIA COASTAL AREA WITH NGHI SON ECONOMIC ZONE



the households had sanitary toilets, but with the opening of the Nghi Son Economic Zone, now this rate has reached 80% and even more. . . . Another example is Nghi Son commune. In Hai Thuong, Mai Lam and Tinh Hai, you can see the change also." [Note: These communes are all in Nghi Son Economic Zone, but only Tinh Hai was a pilot commune].

However, such effects can partly be attributed to the sanitation marketing pilot project, as the spread has occurred in neighboring communes only. As reported in Section 3.3, the same effect was not found in the comparative study communes which had the same general economic development, but which are located further from the pilot communes.

8.2 Scaling Up District-Wide

In the scaling up of sanitation marketing to all communes in the pilot districts and beyond, a distinction should be made between attitudes and practices. Below, the findings are reported on both aspects from the interviews with commune, district, and provincial authorities.

8.2.1 Attitudes to Scaling Up

In the interviews, several commune leaders recommended the replication of the piloted sanitation marketing approach by other communes:

> "I think that the program should be multiplied in the areas, with priority to the backward and poor communes." (Tinh Hai commune)

FIGURE 30: INTERVIEW OF DISTRICT LEADER



"This project is practical for people and should be applied in other communes. The beneficiaries are local residents. In implementation, they do not need financial support, they need promotion to raise awareness so that they can implement. Give the fishing rod, not the fish." (Binh Hai commune)

"The model of this toilet project also needs to be applied in other districts/communes, as normally people can learn from each other. The good thing is that when trained masons of septic tanks do well, others can also learn from them." (Figure 30).

The same attitude was also expressed by several district authorities, such as in Nui Thanh district in Quang Nam province: "The project areas can be considered as a model for other areas to follow."

8.2.2 Scaling Up in Practice

After the pilot project, one district, Nui Thanh in Quang Nam province, actually scaled up the sanitation marketing approach with its own resources from five pilot communes to all 17 communes of the district. As shown in Figure 31, three years into the pilot project, in 2005, the five pilot communes still had a lower average sanitation coverage than the other 12 communes in the district. By the end of the pilot, however, the pilot communes had surpassed the other communes.

After this good result, the chairman of the district People's Committee urged the other local leaders to follow the approach in their communes. In 2007, these communes then started to catch up, and by the end of 2008, both groups

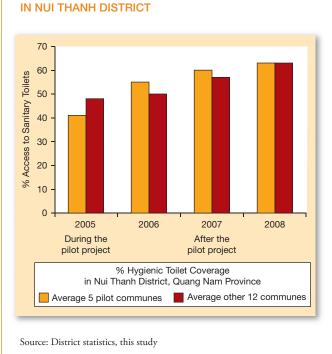


FIGURE 31: EFFECTS OF SCALING UP DISTRICT-WIDE

had achieved an average coverage of 63%. The lowest coverage in the 17 communes was 49%, just below the national rural average of 50% and the highest was 96% (not shown in Figure 31).

The Project Steering Committee of Hau Loc district in Thanh Hoa province also organized visits to and meetings in pilot communes for the representatives of other communes, so as to adopt the approach. However, they did not organize any training events for these new communes and did not monitor the effects of the exposure. Box 7 contains an excerpt from an earlier interview with this district leader, who was then the district's vice chairman.

8.3 Impacts from Parallel Development and Scaling Up

8.3.1 Sustaining Good Quality Construction at Scale

As reported above, evidence of larger scale "parallel development" (spontaneous supply services development without external support) was found in the coastal area of Tinh Gia in the communes close to Nghi Son Economic Zone. Here, the rapid expansion of demand and supply and the limited

BOX 7: A DISTRICT LEADER'S VISION TO IMPROVE SANITATION IN NUI THANH DISTRICT

In December 2002, the average rate of hygienic latrines in the communes in Nui Thanh, a district located in south Quang Nam province, was only 27.4%. The lowest commune rate was 4.45%. As a keen observer and leader, the vice chairman of the district People's Committee recognized the importance of hygiene and proper sanitation for people's health status for the local people. Earlier sanitation projects had not been effective.

When the IDE pilot program started in 2003, he was skeptical because he did not think the marketbased approach would work in his district, where most people are farmers and fishermen and most would not be able to afford to buy latrines with their own money. The local leadership also doubted the feasibility of an unsubsidized approach. However, he was committed to making a difference. Using his prestige with local government, he promoted the approach and helped set up the District Steering Committee and Commune and Village Steering Committees in five pilot communes.

After two years, he was very happy with the results and said Nui Thanh has never had such a successful program. Earlier efforts had involved subsidies, but did not have the same results. Under the pilot project, access to sanitary toilets increased 13.62 percentage points in two years, compared to a 4 percentage point annual increase earlier. His conclusion: "I fully support IDE's market-based strategies. These strategies not only help to improve people's health but also ensure the sustainability of the program after IDE withdraws."

Source: Interview report, James Frias, Former Director IDE Vietnam

capacities of the local authorities to guide this development made it impossible to sustain the technical construction quality of the sanitary toilets. In an interview, a senior public health official of Tinh Gia District in Thanh Hoa province reported that the rapid market development had negative effects for the quality of construction and the satisfaction of the users:

> "So far, there are ten thousand households who live in the area of future site clearance, accounting for 1/5th of the fifty thousand households of the district. I believe that the technical staff and the health workers did not properly supervise these households when they built their toilets. In Nghi Son and others communes we have health staff to supervise toilet construction, but [other than in the pilot commune of Tinh Hai] they did not give supervision when needed and many households had completed the toilet construction when they visited. Many toilets were constructed without consideration for all technical regulations. I found that all mason groups had installed the vent pipes [of the septic tanks] incorrectly. I asked them why they used such small vent pipes. They explained that this was for economic reasons. Instead of pipes with a diameter of 90 mm, they used pipes of 21 mm or 27 mm, which are cheaper. It is clear that [in scaling up] the proper technical process was not followed and the construction requirements were not met. Many people asked me why their toilets have a bad smell, while they built sanitary models. I told them that they built incorrectly."

His reported experience was that after the pilot project had finished, the builders were not trained, so they built the toilets incorrectly and the staff did not go to the households to instruct them on toilet construction.

The main reason in his view was that the CHWs were working under the District Health Care Centre. Neither the district health service nor the communes had the budget to train the local entrepreneurs and provide proper supervision when expansion was so rapid and on such a large scale as in Ngi Son, where many households were relocated and used their compensation money to build new houses with sanitary toilets.

8.3.2 Perceived Impacts on Public Health

Unlike for TSSM, there was no health impact evaluation of the sanitation marketing project. However, because a sufficiently large "critical mass" of sanitary toilets can make a substantial difference for public health (Esrey 1994), several district health officials were asked about their perceptions on the public health impact. Their responses reflected the different district access coverage levels for sanitary toilets.

The district leadership in Nui Thanh, which at the time of the interview had a district-wide sanitary toilet coverage of 63%, reported positive correlations with public health, child nutrition, and poverty reduction.

> "From the environmental aspect it is also very efficient to improve rural environmental sanitation. Diseases and even epidemics used to be very common due to poor environmental sanitation. But since 2005 there has not been any epidemic in our area. That is the direct effect of the sanitary work as part of the health care. I think it has also positive effects on other programs, such as the antimalnutrition program. Nowadays, about 16% of the children in the area have nutritional deficiencies, while the figure in 2003–2005 was 26–28%. So the situation has clearly improved. The percentage of poor households has also been reduced, from about

25% in 2003–2005 to 14–15% now. Therefore, the project has had positive effects on people's health, on poverty elimination, and diseases reduction. It is really an effective program, suitable for people in poor rural and mountainous areas."

In Tinh Gia district, the average sanitation coverage for the district was much lower than in Nui Thanh (31% vs 63%). Here, the district leadership reported an increase in fecaloral diseases, which may well be associated with this low coverage and the absence of a critical mass.

> "In the past, Tinh Gia was a poor district. Partly due to its [poor] sanitation, we used to be confronted with fecal-oral diseases. Their incidence is still increasing. We have looked for reasons, but due to our limited financial budget from the local government, we cannot conduct surveys. The only data which we have comes from the reports of our line staff and this shows that the proportion of households in the district who have sanitary toilets is only 31%."

IX. Conclusions, Lessons, and Recommendations

At a second Stakeholders Meeting on September 9, 2009, the team presented the preliminary conclusions and lessons in Vietnamese and English along with a summary of the findings. The findings had also been enumerated in the Preliminary Report, done only in English, which was sent to the meeting participants in advance. The participants' list is given in Annex 5. The feedback received was incorporated in this end report, including the conclusions and recommendations for the national sanitation program reported in this Chapter. To these have been added the lessons for sanitation programs in other countries, including the countries of the TSSM project and SAWAP in the Mekong Delta.

9.1 Conclusions on Sustainability of Results and Approach

9.1.1 Sustainability of Sanitation Marketing Results

From 2003 to 2006, the local government, MOH, VWU and IDE piloted a rural sanitation marketing approach in Thanh Hoa and Quang Nam provinces. As seen from the findings reported in Chapter 3, the approach has proved to be an effective *and sustained* strategy to speed up access to rural sanitation, using external funds for capacity building instead of household subsidies.

The average annual growth in rural sanitation coverage, which in the study sample was 6.4 percentage points per year, became 7.5 percentage points in the two years after the pilot project had ended.

These results were much better than in the two of the four comparative communes without sanitation marketing for which longitudinal data could be collected. In the first comparative commune the annual sanitation coverage growth averaged 1.25 percentage point in 2003–2006 and fell to 0.5 percentage point in 2007–2008. In the second commune sanitation growth even became negative, that is, less than the annual growth in population.

9.1.2 Sustainability of Sanitation Marketing Approach

The use of a study sample with a mix of communes with high and low toilet adoption by regular and poor households, and the comparison with two matched communes without pilot project, support the conclusion that the results of greater and speedier access can be attributed mostly to the marketing approach rather than to general economic developments. Three major conclusions can be drawn relating to the sustainability of this approach, specifically regarding better promotion of demand and better meeting of consumer demand by the supply side.

On the promotion side, the case study showed that a combination of existing local functionaries—in this case a combination of the village head, community health worker, and local leader of the Vietnam Women's Union—were ready and did continue to promote rural sanitation as part of their regular tasks. This sustainability occurred in communes where the initial commitment and support from higher government levels did not continue.

A second conclusion on promotion is that, other than on the supply side, there were no particular innovations. Promotion continued, but at a lower level of effort. There was no special strategy to enable new promoters to take over when the existing ones were to be transferred, to train promoters in neighboring communes and districts, and to tailor promotion to the much more specific needs of the poorest and remaining households who do not have improved sanitation.

On the supply side, the case study demonstrated that sustainability was achieved because the providers continued to develop their businesses, both on their own and through their networks.

9.1.3 Costs and Effectiveness of the Approach

Because the case study did not include a cost-effectiveness study, no real conclusions can be drawn on this point. However, the original ratio of investment of 1:2 for the project and the households established during the pilot period seems acceptable. This is especially so because both consumer and provider investments have continued to grow without additional inputs for promotion from the government's side. The original investments have thus continued to pay off after the end of the pilot project. However, from the study it can also be concluded that this effectiveness is unlikely to be sustained without new investments, particularly in terms of periodic consumer research, capacity building (for new promoters and providers), advocacy (for a supportive environment), further development and supply of promotional materials, better linkage with local mass media channels such as the commune broadcasting services, and the development of a special marketing strategy to reach the poor.

9.1.4 Reaching the Poor

Three important conclusions can be drawn from the findings in relation to reaching the poorest households. The first is that with their current approach the promoters did reach the poor. Virtually all the participants in the focus groups with householders without a toilet, or with an unsanitary type of toilet, had been reached by the information and wanted to build a toilet, and one third were already saving for one.

The second conclusion is that the approach has built in measures to make the toilets more affordable for the poor, such as construction over time and loans for construction. The providers also offered different credit services for the poor and continued to develop this service as they said that they provided credit more often now than during the pilot project.

However, as the focus discussion with those without sanitary toilet showed, the marketing strategy to serve the poor was not detailed enough to meet their requirements. Poor householders wanted much more detailed information about ways to cut costs, spread investments over time, and different ways of financing than provided under the existing more general marketing approach.

There had also not been any new household studies to assess if changes in the factors influencing behaviors had occurred among the different types of consumer categories, so that marketing strategies could be adjusted accordingly.

9.1.5 Spill-Over, Parallel Development, and Scaling Up

Other study objectives were to investigate if a natural spread of the approach to neighboring communes ("spill-over effect") occurred and if there were any signs of spontaneous marketing developments without external intervention. As reported by the providers, there were indeed signs of a natural spread of the approach. Other providers who had not been trained by the project copied the examples of those who were trained. The newcomers to the field used observation, peer contacts and cooperation in networks, and the IDE-developed toilet design and construction manual. As far as could be determined through focus group discussions with toilet owners and a very small number of toilet observations in a non-representative toilet sample, there were no differences in quality of construction for masons trained during the pilot and masons who had learned the job themselves in the ways described above.

In addition, the provider networks—both the existing ones that were sustained and the newly formed—had expanded their business to neighboring communes. Presumably, the households there had also come to know of their services, but since no questions were asked about how the business expansion was managed and no consumers in neighboring communes were interviewed, no conclusions can be drawn about how this natural expansion process has worked.

In one district, the district health authority reported that "parallel development" (spontaneous market developments without external intervention) had occurred on a large scale. This was in an area where economic development was so rapid that the capacity built by the pilot project and the natural expansion described above were insufficient to meet the growing demand. When many others began to build sanitary toilets, quality of construction and user satisfaction dropped, due to the absence of training and consumer education, and a lack of capacity of the local health staff to vet construction and list masons that met the MOH construction standards.

Although most authorities knew the pilot approach and its results and liked it very much, scaling up district-wide (purposive replication by the district in all its communes) did not happen automatically. Only one of the four study districts, Nui Thanh in Quang Nam province, gave the directive on the adoption of the approach and the training by the district trainers to all its communes. The effects were impressive. In two years, the other 12 communes had caught up with the five pilot communes reaching an average sanitation coverage of 63%. This district-wide average was 13 percentage points higher than the national average.

9.1.6 Gender and Poverty Alleviation

The strategy of the pilot project to target especially women through the women leaders and the heath workers has worked well in these two provinces. From the interview with the promoters, the providers and the FGDs, it became clear that women remained the most interested in having sanitary toilets, but that the couple (and sometimes their children) made decisions for the installation jointly and harmoniously. However, this may be different for other regions in Vietnam and elsewhere, if in these areas there is less agreement on sanitation as an investment priority between members of rural households.

Sanitation marketing further enabled men who worked parttime in sanitation to move out of the agriculture and fishery sectors and obtain better jobs with more career prospects in small-scale enterprise. Thus, it can be said that rural sanitation marketing has contributed to Vietnam's policy and strategy of rural poverty reduction, be it without a specific strategy for gender equity in the capacity development of the providers. In the study area the latter had benefited only men.

9.1.7 Monitoring of Rural Sanitation Access

A major conclusion that can further be drawn from the findings is that there was no proper monitoring system in the study communes, districts and provinces. Missing were: (i) monitoring of toilet access for the different income levels, so that it is possible to monitor sanitation coverage developments for the poor vs. the non-poor; (ii) the combination of data from all the local sanitation projects of different government departments and NGOs; (iii) the aggregation and integration of the data into a simple, computerized, and comparative data system at the commune, district, and provincial levels.

9.2 Lessons Learned for Vietnam

9.2.1 Scaling Up of the Approach

The example of Nui Thanh showed that, once initially trained, districts can scale up the approach and achieve good results of sanitation marketing district-wide with their own resources. However, the scaling up in Nui Thanh happened because an influential "sanitation champion" took the lead and the district was willing to use the developed capacity to train the promoters and providers in the other district communes. Lack of local government resources, which other authorities gave as reason for not scaling up, seems to be less a reason than lack of conviction. A demonstration was that provincial funds that could have been used for capacity development for sanitation marketing and refinement of the marketing strategy for the poor were used for toilet subsidies in poverty zones without great progress on sanitation access.

A further condition for a sustainable program at scale is that teams from the local governments at district and province level become the program implementers. This is in fact already happening in Yen Bai province in northern Vietnam, where IDE is no longer the project manager, but has become the trainer, while the district and provincial authorities are in charge of the project.

9.2.2 Sanitation Monitoring

A second major lesson is the need to have a simple, lowcost, yet comprehensive, and computer-based ongoing monitoring system that allows the authorities to monitor and compare rural sanitation coverage at commune, district, and provincial level. This monitoring system needs to specify sanitation coverage for the different socioeconomic groups. Such a system is needed to facilitate evidence-based reporting on rural sanitation progress through the possibility to learn from the best performers and analyze problems in, and give support to, locations that lag behind.

9.2.3 Access for the Poor

Because the commune authorities did not sustain the poverty-specific monitoring that IDE introduced during the pilot project, it was not possible to learn if access for the poor, which was lower during the pilot project, became better or worse or remained the same afterward. However, from the focus group discussions with householders with no or no sanitary toilet, it became clear that sanitation marketing needs not only a general strategy suitable for the upper and middle classes, but also a much more finely tuned strategy for the poorest section of the communes in the particular program areas.

An important lesson was also that while both households and providers used many different ways to facilitate the financing of their toilet construction, they were not evaluated on their comparative effectiveness. Neither were they combined into a concerted and general strategy that would make it easier for poor households to participate in the rural sanitation marketing program.

9.2.4 Toilet Subsidies

There were two major lessons learned in regard to toilet subsidies:

The first was that *without toilet subsidies* access to toilets could improve more rapidly than before, *and continued to do so*, when a proper rural sanitation marketing strategy was applied effectively.

The second lesson was that for many of the local government authorities and all but one of the FGD households without a sanitary toilet, government subsidies for the poor were not the solution for rural toilet construction.

In particular, about half of those interviewed at institutional levels pointed out that subsidization on a national scale in its existing form was very costly, difficult to sustain, and had problems of transparency and integrity (if subsidies for the poor are available, everyone tries to get on the list of poor households). Subsidies in individual projects from NGOs and other actors were also reported as not being a good solution, because they were short-term and served only limited numbers of households.

These lessons show there may be two ways forward. The first would be to develop and test a special marketing strategy, tailored to serve the poor, such as mentioned above. If working, this might well make it unnecessary to have a countrywide toilet subsidy for poor households. The second would be to develop a much better targeted toilet subsidy for the poor, which is transparent, accountable and locally-specific as described in Box 8 in Section 9.3.4.

9.3 Recommendations for Further Development in Vietnam

From the above conclusions, five specific recommendations were drawn for the further development of rural sanitation in Vietnam. They are detailed in the next paragraphs.

9.3.1 Adjustment of National Rural Sanitation Strategy and Program

Given the good results on the sustainability of the approach and its results in general, rural sanitation marketing deserves to be made part of the national rural sanitation strategy and program. Furthermore, the provinces, which are the program implementers could be encouraged to include the approach in their provincial strategy and action plan.

9.3.2 Development of National Capacities

To strengthen capacity for rural sanitation marketing, various options could be considered. One option could be to develop a system of horizontal learning. Under such an approach, district and provincial trainers and steering committees in pilot districts and provinces (now expanded to some six provinces) orient and train their colleagues in neighboring districts and provinces.

Another option could be to involve rural education institutes for training-of-trainers in a scaling-up program, such as was done for CLTS with the use of a regional rural college. However, implementation will depend on the individual provinces. A first step for creating a demand for the approach among them would be for the RWSSP and the supporting donors to organize exchange visits to the pilot locations for the political leadership, VWU, heads of the preventive health departments, and other key stakeholders of the provinces in those regions.

9.3.3 Improvement of New Rural Sanitation Marketing Initiatives

In new sanitation marketing programs it would be useful to include investment for (i) periodic consumer research; (ii) advocacy for sanitation and sanitation marketing; (iii) capacity building of the authorities and the promoters and the providers and their trainers, not only at start, but also periodically to train new actors over time; (iv) development of promotional materials and channels; (v) and the integration of gender equity in provider capacity building.

In particular it would be useful to institutionalize capacity development by investigating the possibility that the districts establish ongoing training programs for promoters and providers and/or incorporate training on rural sanitation marketing into the education programs of rural training colleges.

9.3.4 Development of a More Specific Approach for the Poor

A major recommendation that emerged from the findings and conclusions is to develop and test a special rural sanitation marketing strategy for the poor (Box 8). This strategy could include, for example: more detailed information on, and discussion of potential cost reductions; more evaluation of, and information sharing on, the different ways of financing for households and providers; and a more detailed trajectory for staged construction, such as buying and storing materials over time (less sensitive to inflation), building in more stages, making an x-year construction plan for a toilet/bathroom, and uniting to buy goods and services in bulk.

Possible elements for such a strategy that emerged from the discussions and interviews were:

- Conduct formative research to get more insight into the barriers and facilitators for the poor to upgrade unsanitary toilets or construct sanitary toilets. This is needed because in this case study no in-depth study of these aspects was carried out.
- Train promoters and masons to fine-tune information to the special needs and demands of the poor that emerge from such as study. From this case study it emerged that the current information on models and costs was too general for the poor and that this group wanted more details on, and discussion of, possible ways to save costs, buy materials and construct over time, save or make money from productive use of excreta in combination with a more attractive design of the composting toilet (the use and current toilet model were considered outof-date), and different ways to finance investments, each with their pros and cons.
- Develop and test better financing mechanisms in an applied research project. From the case study it emerged that for toilet financing no single solution fitted all.

BOX 8: TRANSPARENT, ACCOUNTABLE, AND LOCALLY-SPECIFIC TOILET SUBSIDY FOR THE VERY POOR

In the interviews, several problems with toilet subsidies based on national poverty criteria were given.

The problems noted included the large numbers of the poor based on national criteria and the lack of resources for providing a toilet subsidy to more than a small number of households and for more than a short period of time. Problems of integrity ("Are those on the lists really poor?") and transparency and accountability in allocation ("When resources are not sufficient, who gets a subsidy and based on which criteria and decision-making process?") are other common problems with a nationwide rural poverty standard, and with toilet subsidies based on it. These have been the main reasons for developing a targeted toilet subsidy which is transparent, accountable and locally-specific.

The approach uses participatory set indicators (e.g., through a democratic process in a local council or a PRA activity with a meeting that equitably represents the different sections in the community) to identify the locally very poor, who need a subsidy most. It then makes the choice transparent by displaying the criteria and selected households. Accountability is ensured by linking listings to actual allocation in cash or kind, and actual toilet construction. Some local governments also use the income from a local tax, such as transport or house construction tax, to establish their own permanent fund for a toilet subsidy for the very poor.

However, the interviews and FGDs brought to light several possibilities for testing:

• Promoters and providers could be trained to give the poor an informed choice not only on technologies, but also on the financing options and their respective pros and cons. In each network one or two persons should further have detailed knowledge on how to tap into the various loans and savings schemes, and promoters and providers should refer potential customers to these persons.

- In their training, the providers could get additional information on potential business financing services and the implications of each type. However, this strategy does not extend to sanitation loans for small-scale *providers*.
- Promoters and providers could be trained to give poor households a much more detailed trajectory for a staged construction of a modern toilet than the current message that they can first build the upper ground part with temporary materials and then gradually replace the upper part with more permanent and attractive materials. They could inform the customers about, for example, which permanent materials they can buy and store over time, which parts they can build in permanent form and which as temporary parts, and how to make, for example, a threeyear toilet or bathroom construction plan.
- Networks and others in the overall supply chain could be encouraged to produce their own low-cost promotional materials. These could inform households who want to build a modern toilet on the design and bill of quantities of the different models, give information on where low- and no-cost local materials could (and should not) be used, and which materials they could buy and store instead of saving for such a model and losing a substantial part of the capital to inflation.
- Promoters could encourage households to form groups and get discounts when buying materials in bulk and hiring masons together. The resulting economies of scale would benefit everyone and make it easier to negotiate with the local providers for better deals in materials, transport, and construction.

9.3.5 Development of a Better Rural Sanitation Monitoring System

The case study showed that tracking sanitation access would be greatly assisted if a simple monitoring system could be developed with the following characteristics:

- It generates valid and class-specific data, or in any case poor-specific.
- It is progressive, that is, new data is added each year while those of the preceding years remain available.
- It is low-cost, user-friendly, and runs on existing software.
- It can be used by local health staff and authorities from village-level up without elaborate and expensive training.
- It uses participatory methods to increase awareness, transparency and accountability.
- It combines the data from different government and NGO programs.
- It is possible to aggregate the data into simple, computerized databases such as spreadsheets that make it possible to compare change across communes, districts and provinces.
- It uses data at each level for trend analysis, planning, monitoring, accountability, and adaptive management (that is, acting upon findings from analysis to improve results).

An action research project as part of NTP II could develop and test, on a demand basis, such a system with a group of communes, districts and some provinces.

9.3.6 Combining Rural Sanitation Marketing with Other Approaches

Much might finally be gained from combining rural sanitation marketing with CLTS and other approaches (e.g., community health clubs, domestic hygiene improvement groups), which MOH, SNV, UNICEF and others pilot in other parts of Vietnam, especially to address open defecation and link better sanitation with good hand-washing habits and a safe drinking water chain. This is further discussed in the next section.

9.4 Lessons for Wider Application and in Other Countries

From the case study on sustainability a number of lessons can be drawn for other rural sanitation programs such as TSSM and SAWAP. They are detailed in the sections below.

9.4.1 Sanitation Marketing 9.4.1.1 Promotion by the Triumvirate

A first set of factors important for the success of RSM in Vietnam has been the use of a team of three project-trained, institutionalized local frontline workers at the village level (CHW, VH, and VWU leader) and the methods employed by them. The teams used a mix of IPC methods, consisting of talks and discussions (including by trained toilet masons) in special sanitation and other meetings, and home visits. They also used messages that were based on consumer research in the project areas.

The frontline workers were all *existing staff*, of whom the CHWs and VWU leaders already promoted sanitation and hygiene before the project as part of their government-paid regular work. The project gave them training to improve their communication skills, learn about the range of technologies and use messages based on consumer research, and not on their own perceptions and earlier training.

The involvement of the three types of workers, their training and the messages and the mix of methods used have been very effective in achieving a four-fold higher increase during the pilot project in the construction of new sanitary toilets and the upgrading of unsanitary ones than in the three previous years (see Figure 6).

The approach in rural Vietnam may be replicable to some degree in other countries. However, much will depend on the local conditions. The numbers of households to be reached by the local promoters, their willingness to participate in and their experiences with working as a team, the ease of access, local transport, transport time situation, and the familiarity with and trust of the local promoters and leadership may all play a role. In Vietnam, the community health workers, women leaders, and village heads were government-employed. They were stationed at the village level (one commune in the study area consisted of some seven villages) and the teams were formed and trained by the district authorities. Two of the three team members also had sanitation promotion included in their tasks and had done promotion before. Finally, the project settlements were densely populated and covered relatively small areas. Some or all of these factors may be different in other countries and in other parts of Vietnam as well, and so may make it harder and more costly to get the same results in the same short period.

For example, CHWs are present in India, Indonesia and Tanzania, which are the three focus countries of the Global Scaling Up Sanitation Project but as far as is known, in Tanzania they are not stationed down to community level and in India and Indonesia not down to village level. This will make it harder for the CHW workers in these countries to play a similar crucial role in rural sanitation marketing as they did in Vietnam, unless higher-level CHWs can cooperate closely with village-level volunteers and organizations.

With regard to women leaders as sanitation promoters, there may also be differences in their availability, influence, mobility, payment, and training in other locations. Formative research is therefore needed to assess if they could promote sanitation in other countries and parts of countries, including to some extent in Vietnam itself. Tanzania has, for example, a national women's union and Indonesia a national women's program. Both have leaders down to the commune level, and pending insights from further study their women leaders *could* be involved in the same way as they were in Vietnam, as promotion of health and hygiene is part of their function. A national women's program does not exist in India. Here, the Child Environment Development program, GoI and UNICEF, which promoted safe water, sanitation and hygiene in 57 districts in the 14 poorest states, used program-paid and-contracted women promoters instead of CHWs and women leaders. An investigation would be needed to know what happened to these women and the sanitation promotion after the Child Environment Development program ended, and what other alternatives to raise demands for sanitary toilets and follow up quality of construction and use might be available. Many countries further have elected and government-paid heads at the lowest government (commune) level. However, not every country has paid village-level heads, as in Vietnam, whom the government can ask to promote toilets through, among others, home visits to individual households as part of their work. Interest in, commitment to, and credibility and acceptability of such home visits for promoting toilets may also vary. At the same time, village leaders in (among others) Bangladesh, India, and Tanzania have played a role

in promoting sanitation in CLTS programs. Part of the combination of the strengths of RSM and CLTS would be to study the ways in which village heads are best involved in these approaches and to harmonize and blend the approaches in the different political, administrative, and socio-cultural conditions.

An interesting lesson from Vietnam has further been that the abolishment of the monthly promotion incentive equal to USD1.20 at the end of the pilot period did not put an end to the promotion activities. Although the intensity and variety of promotion methods declined, promotion had become institutionalized, i.e., sanitation became a fixed subject in meetings and was done on one specific day of the month, which each commune gave its own special name. In the study sample, the rate of progress in sanitation coverage also remained the same as during the pilot project, and two of the three villages that had lagged behind caught up.

Where no promoters at the local level are available within the formal government system, one option could be to see if the CHWs could organize, build the capacity, and monitor local volunteers, such as a local sanitation, water or health committee, the local women's group, youth club, or the local community and school health clubs to combine elements of RSM and CLTS.

9.4.1.2 Promotion by the Local Private Sector

A second characteristic of the successful rural sanitation marketing approach in Vietnam is the participation of the local private sector in the marketing of improved sanitation through information dispensed during calls from potential customers, talks at meetings, home visits to potential clients, etc.

Both in Vietnam and in other countries this potential could be developed. From the study findings that some 10% of their business is in sanitation, it is not realistic to expect that small businesses invest more in information, communication and education individually. However the larger businesses in the supply chain and/or certain persons within their business networks may have the potential for more active promotion and their capacity to do could be developed.

9.4.1.3 Support from Other Local Organizations

Another lesson from the case study is that both during and after the pilot project, the local promoters were supported by other local organizations. The Farmers' Union, Soldiers' Union, Youth Union, and Old People's Union invited promoters to their monthly meetings to raise the sanitation issue and promoted improved sanitation among their members. When such organizations are present in other countries, it will be useful to advocate for and achieve their support. Schoolteachers and children also supported promotion in some Vietnamese pilot communes, although there was no systematic involvement and the promoters remained the lead. This was different in Nepal and Pakistan, where school-led rural sanitation program have had good results (Wicken et al. 2008).

9.4.2 Private Sector Development

High annual economic growth rates and the labor surpluses from small-scale agriculture and fisheries have been typical for the socio-economic environment in the Vietnamese pilot project region both during and after the pilot project. After the abolishment of the communal farming system in 1986, Vietnam's agricultural production levels increased sharply. This brought a decline in rural poverty and an increased demand for non-agricultural goods, especially in the higher potential regions. At the same time, land scarcity gave rise to unprecedented migration to small and large urban centers (Tacoli 2004).

When approached by IDE, both small farmers, who already worked as masons in the off-season, and small private entrepreneurs, who dealt in agricultural supplies and general construction goods, responded to the opportunity to diversify their businesses. The training by IDE and their stimulus to form networks of delivery chains with fellow workers and family businesses came at the right time to build the capacities of those selected so they could make the best use of this changed environment. Since then, this economic and social development has continued and other providers in the same and neighboring communes have copied the local examples on a small scale through observation, talks, and self-study of the construction manuals made available by IDE. It should further be noted that none of the entrepreneurs, established or new, got any capital or loans to start with or expand to sanitary wares and services.

IDE's strategy was that the project did the technical and market research and financed the strengthening of the capacities of selected local entrepreneurs in areas where a market might emerge. The project gave no material support to either entrepreneurs or households and did not provide follow-up support either. Local business people and customer households were to lead by example and personal communication to sustain sanitation growth. This approach has worked well in the above-described economic and social environment as long as growth of demand and supply was sufficiently gradual. The approach is quite different from the strategy pioneered by UNICEF in Bangladesh and India, and now scaled up by GoI (2007) to give subsidies to local governments, NGOs and women groups to start specialized production centers and sanitary marts, and to operate a revolving toilet fund.

Capacity building of small enterprises without subsidization and imposed specialization may also work quite well in similar environments elsewhere, although the Han Vietnamese have one of those cultures in which the spirits of enterprise and trade are highly developed. The approach did, however, *not* work in that part of the pilot area that had a very steep growth in development, because peer learning and quality control mechanisms could not keep up with the high opportunities and speed for construction.

The strategy has also not been fine-tuned enough in regards to offered toilet models and materials (e.g., lighter and cheaper fiberglass and plastic pans and platforms), phased construction, and informed ways of financing to serve the needs of the poor. Through information, observation, and the mass media, these groups aspired to a modern lifestyle and would not compromise their demand for what at present is considered the highest achievable level: a septic tank toilet with ceramic squatting platform or sitting toilet, and if so desired, expandable to a full-fledged bathroom. These ambitions may not only be an issue for further development in Vietnam, but may also be at play in all rural areas where education, information, and communication increases the aspiration for not just any toilet, but for a model with high-status features. A more refined building and financing strategy could give poor households an informed choice which is more tailored to their needs, instead of promoting established, more general schemes such as local toilet loan funds and traditional saving clubs.

9.4.3 National Toilet Standards

A further characteristic of the pilot project in Vietnam was the presence and expansion of national standards for sanitary toilets, defined by MOH, and the emphasis on those standards in marketing, supply, and training. Under the prevailing socio-political culture in the country, the promoters placed a lot of emphasis on meeting the standards. Households, villages and communes all aspired to having the title of "cultured" household, village etc., a sanitary toilet being one of the criteria for such title. Meeting all these criteria is even compulsory for village heads and other party officials. Surprisingly, however, the standards did not apply to the offices and meeting halls of the People's Committees-the national policy set targets for institutions, but these were related to schools and health stations (who invited local providers to make toilets), while the People's Committees did not do so for their offices and halls.

These titles are honorary, other than for example India, where GoI (GoI 2007) gives a financial award for every community that has achieved ODF status, which is not necessarily sustained and verified over time. (See Khurana et al. 2008).

From experience with CLTS, having national minimum standards on toilet construction and use checked by the local CHW is a valuable feature and worth replicating. As far as is known, none of the TSSM countries have yet adopted national standards for sanitary toilets. India promotes two sanitary models in its national program for rural sanitation, a single and a double vault pour flush toilet, but local bodies must set and check the standards (GoI 2007).

The current toilet standards of MOH of Vietnam are, however, unrealistically high, especially for the poorest and most isolated parts of the country. The demand for ceramic platforms and sitting toilets was growing among consumers and their children, many of whom aspired to the urban lifestyles that they get to know from TV and visits to town. However, they are also subject to breakage during transport and their material, shape, and weight make them hard to transport in large quantities by the providers, or on the back of a motorcycle or bicycle by the consumers. In practice, it also seemed that the consumers' aim for a *sanitary* toilet according to the national standard was synonymous with the people's aspirations for a *modern* toilet, since as mentioned even the poorest households wanted to build a (semi-) septic tank model, and people also aspired to have bathrooms. As pointed out above, the growing demand for urban-style sanitation and the ranking of septic tank toilets as the highest standard has especially had negative implications for the marketing of composting toilets (which in their current design were too crude and not combinable with bathrooms), and for the forecasted longterm environmental sustainability of improved rural sanitation.

9.4.4 Toilet Subsidy

All households in the pilot project study built, and went on, building toilets without direct subsidy. However, because there was no decision on abolishing toilet subsidization in favor of a more fine-tuned strategy of sanitation marketing with research and capacity building, authorities at all levels also accepted or undertook projects with subsidies both at the same time of the pilot project and afterwards. It is crucial, that a national policy on this point be established. The case study confirmed that coverage increase was sustained without such subsidy at the much higher rate achieved during the pilot project. There is, as said, however, a need to widen the range of lower cost models, while retaining high-status elements such as shiny and colored pans and tiles and the potential of upgrading to a small bathroom, and test a more refined strategy to serve the local poor.

The subsidy debate also continues in, for example, Bangladesh and India. In Bangladesh, it was found that targeted subsidies are needed for the ultra poor, which is not necessarily the same as being included the poverty lists (see Kabir et al. in Wicken et al. 2008). In India, individual states can decide to give a subsidy (called incentive) to all, to households on the Below Poverty Line lists, or on an individual basis. A comparative study by WaterAid in five states with different subsidy regimes revealed however that subsidy as such did not increase coverage (Khurana et al. 2009). In Indonesia, on the other hand, the national program does not provide toilet subsidies (Mukherjee et al. 2009).

9.4.5 Open-Defecation Free Status

The focus of the rural sanitation marketing pilot project in Vietnam has been on sustainable marketing of sanitary household toilets without government or project subsidy. There was no participatory assessment of open defecation and no pursuit of obtaining and sustaining an ODF status. From the group discussions with householders without a toilet it emerged however that those without toilets do practice open defecation at least part of the time, when they do not use a toilet belonging to a neighbor or relative (sharing was quite common).

Also according to the discussions, people were aware that open defecation brought health risks and many said they practiced the cat method of defecating in a small hole and covering the excreta afterwards. The case study team did not validate this reported practice, however, in visits to open defecation sites. From the FGDs and the promoter interviews it emerged that once households have built a demandbased toilet, all household members use the toilet except the youngest children, but that their stools are also deposited in the toilet.

There are two emerging lessons regarding ODF status. The first is that the desirable behavior of toilet-use-by-all has benefited from a demand-based toilet approach that is combined with the promotion of a limited number of clear sanitary behaviors and a team of dedicated and trained locally institutionalized staff with clearly defined functions and tasks.

The second lesson is that all rural sanitation programs, including those using sanitation marketing, CLTS, community health clubs and other approaches, need to include an integrated strategy to end open defecation. Indeed, organized visits to common open defecation areas and participatory observations on evidence of open defecation may well further stimulate demand for sanitary toilet construction and use. Including a strategy to end open defecation may reinforce the cost-effectiveness of sanitation marketing.

9.4.6 Sustainable Capacity Building

Another valuable characteristic of the pilot project in Vietnam has been that IDE trained a group of *government* staff as trainers of the promoters. In their turn, these teams gave training courses in the district capitals to promoters and providers from the pilot communes and villages in their districts. This approach made it possible that, after the pilot had finished, one district head could invite all other communes and villages in his district to send their teams for training. The subsequent implementation raised the average overall district coverage to 62% in two years, with peaks of up to 92% coverage. In a second district, there was no formal replication of training, but other communes were encouraged to visit pilot communes.

However, other leaders did *not* follow suit, probably because of lack of provincial policies, national policy, and peer contacts/competition. In Vietnam, the provinces are responsible for implementing rural sanitation and clean water policies. The national policy has not yet adopted the approach and the provincial authorities had not participated in the pilot project. Thus, there was no institutional context that encouraged scaling out to whole districts in the pilot area.

Nor is the adopted capacity-building approach selfsustaining. The authorities have not stimulated local demand for training in other communes and the trainers themselves are unlikely to give training in other locations after they have been transferred, which happens every two to three years. In addition, new staff replacing them will not develop the same capacity-building skills, unless they are given specific training. The interviews with the district authorities showed that because there was no policy, no budget, and no team of governmental master trainers, capacity building for rural sanitation marketing had, in practice, already disappeared.

Hence, there is a great need to integrate capacity building in those Vietnamese institutions that can train the trainers of the promoters, the authorities, and such local professional promoters as the CHW for whom sanitation promotion and toilet quality control is part of their job. For the capacity building of the providers, there is a need to institutionalize the training of the district training teams that train key providers in each village. Since the capacity building will increase the acquisition of sanitary goods in the rural areas, it might be possible to interest large Vietnamese supply companies of sanitary wares in sponsoring these courses. Ongoing capacity building will also be a concern in other countries. Both in Vietnam and the other countries, it will be essential to formulate a long-term strategy, program, and budget for capacity development, and build a team of master trainers in the different parts of the country if the approach is to be continued and spread. It should also be considered whether education on rural sanitation marketing could be integrated into the countries' education system for CHWs, women leaders and the administrative and political bureaucracy.

9.4.7 Gender Equity

Also noticeable from the case study on sustainability of rural sanitation marketing in Vietnam was that a gender approach was included in sanitation promotion, but *not* in capacity development for providers. With one exception, the providers that were trained in the study area were all men.

In all regions and countries where poor women already work in infrastructure as unskilled day labor (e.g., as road workers and mason helpers), they would benefit *greatly* from opportunities of doing skilled and regular masonry work in their own communities. These poor, landless, or otherwise marginalized women, especially those widowed and divorced, are often sexually exploited by the masons and have no other sources of income on off-days and in the rainy season. Where poor women were trained as toilet masons, they proved to be highly committed toilet promoters and skilled craftswomen with a strong eye for neat work and proper finishing (IRC et al. 2007). Both male and female householders further appreciated the presence of women masons in their house or compound during times that male family members were away (Kurup et al. 1998 and Sijbesma 2006).

9.4.8 Comparative Management

A final lesson from the Vietnam case study is that after the project and the financial incentive for monitoring and reporting had ended, local sanitation monitoring and management also stopped. This affected the total data chain, from village, to commune, district, and province. Although various persons (such as the commune statistics officer) and organizations (such as the commune health posts, or project NGOs) collected and reported statistics each year, these were not consolidated and validated in a single, poverty-specific rural sanitation data base covering, for example, the periods of NTP I and II. The statistics were not aggregated at each level or used to report to the promoters and local authorities about comparative results, nor were they used continue to manage rural sanitation marketing as a program.

This has been a missed opportunity, especially for district and provincial health officials and People's Committee leaders, who could have found out how the different communes were doing over time and why, stimulated inter-commune and district learning, and helped laggards to overcome constraints.

Such comparative management is often also missing in other rural sanitation programs. Reportedly, the Global Scaling Up Sanitation Project districts in Indonesia now routinely measure and report unit costs and outcomes, and district capacity building for result- and evidence-based monitoring has started. More participatory and transparent monitoring may further enhance sanitation coverage, help sustain ODF status, and make governance accountable. The sustainability of such sanitation monitoring and management will clearly depend on its integration into the country system from commune level upward, if it is not to stop after the end of the project, as it did in the case study area in Vietnam.

To expand human capacity, various capacity development options could be considered. One option would be a system of horizontal learning. Under such an approach, district and provincial trainers and steering committees in pilot districts and provinces (now expanded to some six provinces) would orient and train their colleagues in neighboring districts and provinces. Another option would be to involve rural education institutes for training-oftrainers in a scaling-up program, as has already been done with a regional rural college for CLTS capacity building in the north.

Annex 1: Terms of Reference

Assessing the Sustainability of the Sanitation Marketing Approach

Case Study: The Support to the Small Scale Private Sector Development and Marketing for Sanitation in Rural Areas Project in the Vietnamese Provinces of Thanh Hoa and Quang Nam

Terms of Reference

1. Purpose

In close conjunction with its partners in Vietnam, the Water and Sanitation Program (WSP) proposes to carry out a Case Study of an earlier sanitation marketing project entitled, "Support to the Small Scale Private Sector Development and Marketing for Sanitation in Rural Areas Project in the Vietnamese provinces of Thanh Hoa and Quang Nam." The project was implemented from 2003–2005 with technical assistance from International Development Enterprises (IDE) in two provinces of Vietnam.

To this end, WSP wishes to contract a consultant firm to conduct the Case Study which will assess the IDE-supported project 2-3 years after project completion, and will capture lessons learned regarding the scaling up, replicability and sustainability of (1) the local government/institutional programs, (2) the local private sector market in providing sanitation and hygiene related products and services and, (3) the ability of the households to access affordable and appropriate sanitation products and services from the local private sector. The Case Study will also look at the interest from local government to adopt and perpetuate the market-based approach within their long-term institutional programs. In particular, the Case Study will look at both, the degree of adoption of the market based approach by authorities in the implementing districts and the "spill-over" effects that may have occurred in nonimplementing districts within the implementing provinces. In addition, consultant firm will assess whether "parallel developments" occurred in non-project, non-spill-over areas. Greater detail can be found in the Framework for Assessing the Sustainability of the Sanitation Marketing Approach.

2. Background TSSM

In a number of countries, WSP is guiding the "Total Sanitation and Sanitation Marketing (TSSM): New Approaches to Stimulate and Scale Up Sanitation Demand and Supply Project." The long-term vision for this effort is to help meet/ contribute to meeting the basic sanitation needs of the rural poor in developing countries who do not currently have access to safe and hygienic sanitation. Through TSSM, WSP and its partners aim to develop practical knowledge for designing sanitation and hygiene programs that are effective at improving health and are sustainable at *large scale* for rural villages, small towns and informal urban settlements. TSSM will test proven and promising approaches to create demand for sanitation, and to improve the supply of sanitation-related products and services in order to increase household access to safe and sustainable sanitation, create open defecation-free communities, and promote improved hygiene practices.

Globally, evidence exists on how to effectively increase sanitation access and improve health conditions, but more experience and knowledge are needed to scale up these programmatic approaches in countries with different conditions, and to ensure that the poorest and most vulnerable rural and urban poor families gain access to sanitation. TSSM is being carried out in three different countries (India, Indonesia and Tanzania), and from the very beginning the key question that will be monitored and evaluated is how to scale up and sustain these approaches, and then how to replicate in other areas (often with different culture, traditions and practices) and in other countries. To this end, TSSM carries out a structured process to develop the practical knowledge and tools to replicate and scale up these programs at a reasonable cost and within the financial and institutional constraints of new countries with different cultures.

The Scaling Up Sanitation program in Indonesia, India and Tanzania gives equal attention to demand, supply and an enabling environment. The Community Led Total Sanitation approach (CLTS) is used to create demand. The Sanitation Market Based Approach (SMBA) is used to stimulate demand, strengthen supply and gets into market research, product development, local entrepreneur capacity building and business development. The project sees both CLTS and SMBA as two essential and mutually reinforcing approaches for sustained Sanitation and Hygiene Behavior change at scale. In addition, the project works on improving local regulatory frameworks, national policies and strategies in order that they make possible unhampered growth of the demand and supply forces in local sanitation markets.

SAWAP

SAWAP is a new demand-responsive, programmatic, multicountry technical assistance program, under way since early 2007, supported by WSP-East Asia and the Pacific (WSP-EAP). The initiative focuses on joint support to nationallyled efforts in the sanitation, hygiene and water supply sector, and on selected inter-country initiatives between Cambodia, Lao PDR and Vietnam, with two provinces of Southern China progressively joining in. The new initiative is centered on the Mekong Region, a cluster of countries and major provinces (Cambodia, Lao PDR, Vietnam and Yunnan and Guangxi provinces of China) loosely linked by the Mekong basin and in many other economic, historic and cultural ways. With its high needs and promising opportunities for inter-country networking and partnership, the Mekong region is a focus area for WSP-EAP support.

SAWAP's two parallel activity clusters are identifying and scaling up sustainable solutions and mobilizing resources to achieve the MDGs. Countries have initially agreed on six specific SAWAP-supported cross-boundary projects, several of which will be relevant to the planned study, and on an approach to link and cross-resource existing WSPsupported country and regional activities through a common SAWAP framework. The relevant cross-boundary SAWAP projects that the new study will help support are: "Support to Improving the Knowledge Research and Application Cycle" and "Mobilizing the Domestic Private Sector for Water Supply and Sanitation," both led by Vietnam; "Development of a Sustainable Management Model on Rural Sanitation," led by Cambodia, and "Development of Sustainable Management Models on Urban Sanitation" (including small towns), led by Lao PDR.

Cambodia Sanitation Market Supply and Demand Studies

In Cambodia, two studies were carried out in preparation for a sanitation marketing pilot project (see below for more information on sanitation marketing). The first study examined the demand for sanitation among the population in three provinces and urban centers. Latrine owners and nonowners were surveyed, to develop a picture about sanitation awareness and practices, but also about preferences, affordability and perceived advantages and disadvantages of latrine ownership. The second study undertook a sanitation supply chain analysis in the same rural and urban areas, examining everything from importers to wholesalers, retailers and masons/contractors. The studies were designed to shed light on the reasons for the persistently low sanitation uptake in Cambodia's communities (rural sanitation coverage according to the Joint Monitoring Program stood at 8% between 1998 and 2005, increasing to 16% by 2007). The findings were used to design a sanitation marketing pilot which will be implemented in one province over a period of three years. The pilot will take into account ongoing CLTS efforts, resulting in an approach similar to TSSM.

Sanitation Marketing

Sanitation Marketing is an innovative approach to sanitation. The basic premise of this approach is to unleash the power of the small- and medium-scale private sector in the provision of sanitation services and to use techniques of commercial marketing to analyze the themes and messages that would generate demand for these services and lead to sustained behavioral change.

The sanitation marketing approach adopts the following principles:

• Learning about the market: This principle is about understanding demand and supply through an

analysis of the sanitation market: suppliers of sanitation infrastructure and maintenance services, reasons for installation of sanitation solutions, constraints (legal, institutional, knowledge, and financial) that prevent the expansion of the sanitation industry, etc.

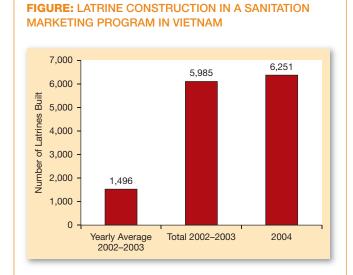
- Promoting demand: Based on the results of the market studies, a marketing strategy is developed to promote demand for sanitation services. The marketing strategy uses a variety of messages targeted to different audiences, as well as different media—commercial advertising techniques (through a combination of appropriate media such as print, radio, and TV), and more direct promotion to the consumer through NGOs, Department of Health outreach teams, and others—within a consistent framework of well-designed messages to generate demand and change behavior.
- Developing the right products: In many cases, one of the key constraints to the development of a localized sanitation industry is the lack of knowledge of technological options that can serve as the basis for innovation and adaptation in the local market, at affordable prices to the local population. However, the Sanitation Market Based approach does not promote a single technology but instead focuses on the consumer's choice. A broader range of options for construction and maintenance of sanitation solutions, with a variety of installation and operation costs, is needed for the market to supply all households, at different levels of income, with solutions they can afford. In many developing countries the heterogeneous nature of the ethnic groups and cultures means that different areas may require different designs and options—is this a limitation to going to scale?
- *Developing a thriving industry*: Capacity building of service providers becomes essential to develop a sustainable market. The most common weak areas include lack of: commercial skills, access to credit, legal recognition, and associations to build mutual confidence and skills. Overall, the nascent local sanitation services industry requires support to develop in most countries.
- Adapting policies and subsidies: The delivery of sanitation services based on the small scale domestic private sector requires, in most countries, changes

in regulations and policies—including land use requirements and licenses, construction standards, and, in informal urban areas, disposal options. Subsidy policies are needed for marketing, promotion, and industry development, and possibly outputbased subsidies are needed for the very poor.

• *Building an enabling environment*: At commune, district, and provincial levels, in line with decentralization policies, as well as at national policy and strategy level.

Sanitation Marketing in Vietnam

In 2003, the international NGO International Development Enterprises (IDE) with funding from the Danish International Development Agency (DANIDA), launched a project to stimulate the acquisition and use of hygienic sanitation in two provinces in Vietnam (Thanh Hoa and Quang Nam). IDE developed a range of options that were affordable and appealing to potential customers. IDE then developed, through capacity building, business development support, credentialing, a local network of masons to deliver these options. To better understand the drivers of sanitation demand, IDE and local masons assessed consumers' willingness to pay for sanitation and its perceived benefits. They used the assessment results to promote the benefits and availability of the sanitation options through



Source: "Harnessing Market Power for Rural Sanitation: Private Sector Sanitation Delivery in Vietnam," WSP Field Note, February 2005, Jaime Frias and Nilanjana Mukherjee.

appropriate media channels and tailored messages. The figure below illustrates the rapid increase and scale-up in coverage. Although the average number of latrines constructed in the district over the period 2000–2003 was less than 1,500, during the first year of the program in 2004, 6,250 latrines were built by the small-scale private sector.

IDE has recently extended the Project to another province (Yen Bai) with support from a Spanish NGO, utilizing similar approaches to that used in Thanh Hoa and Quang Nam.

3. Scope of Work

3.1 Plan a consultative process to maximize interest and commitment to the study findings among the maximum number of stakeholders, including, but not limited to: oneto-one consultations, preliminary and final half-day workshops, and opportunity for review of framework and final draft outputs by (i) the stakeholder review group, and (ii) a wider group of interested sector partners.

3.2 Collect and review background materials including but not limited to:

- GoV RWSS Strategy and Action Plan
- 2005 RWSS GoV/Donor Joint Sector Review
- Harnessing market Power for Rural Sanitation, WSP Field Note, February 2005, Jaime Frias and Nilanjana Mukherjee
- Water Supply and Sanitation Strategy for Vietnam, Building on a solid foundation, World Bank working paper, 2006
- Investing in the Market, Scaling Up market based approaches for small-scale sanitation in Vietnam, WSP/IDE/SEI, Dan Salter, September 2005
- IDE post-project evaluation report
- Project Document for the new Yen Bai project
- Thematic Study on Sanitation and HIV/AIDS in Vietnam (5-7 December 2004).

3.3 Participate in a team planning meeting with WSP/ VN to agree on:

- Individual team member roles and responsibilities
- Expected deliverables
- Approval of draft documents and tools
- Work plan with schedule

- Team norms for working together
- Agreed consultative, open, process for working with stakeholders and others.

3.4 Draft detailed research protocol and present to stakeholder review group and finalize based on comments received.

3.5 Draft and finalize—based on comments—the research instruments (questionnaires and guides) and coordinate translations and independent back-translation.

3.6 Draft interviewer guidelines and instructions and finalize based on comments, recruit and train interviewers and focus group moderators as required.

3.7 Coordinate and supervise fieldwork to ensure quality control.

3.7 Conduct selected interviews (e.g., stakeholders).

3.8. Enter clean data and analyze data.

3.9 Prepare and present preliminary findings in Power-Point format at a stakeholder review group meeting.

3.10 Coach local research firm every step of the process and build capacity as needed to ensure international quality standards and methods are met and used throughout.

3.11 Prepare final draft and final report based on review and comments. All reports will be written in professionallevel English and meet international quality standards.

4. Deliverables/Outputs

All Outputs will be produced in both Vietnamese and English and will subject to quality approval by WSP. They are as follows:

- Draft and final research protocol
- Draft and final research instruments (questionnaires, discussion guides) translated and back-translated
- Syntax and data files (for quantitative research) and full transcripts
- Preliminary results and recommendations in PPT presentation

• Final report (framework, draft and final). English version will be written and edited professionally and meet international quality standards.

5. Estimated Schedule

Key Milestones	Mar	Apr	May	June	July
Research protocol and tools finalized					
Fieldwork					
Preliminary findings					
Stakeholder group review meetings					
Final report disseminated					

6. Management of Activity

The Consultant firm will be co-managed by the WSP/HQ Senior Social Marketing Specialist for the Scaling Up Total Sanitation and Sanitation Marketing project and the Country Team Leader, Vietnam WSP-EAP. The Consultant firm will also seek periodic guidance from the Steering Group and facilitating inputs from DWR/MARD.

7. Level of Effort

Illustrative Team Members	Working Duration (weeks)
Senior International Social, Sanitation and Hygiene Specialist	5
Sanitary Engineer	6
Financial Specialist	6
Communication Specialist	10

Annex 2: Composition of the Study Team

- Dr. Christine Sijbesma, PhD Sociology. Team leader. Community management, hygiene promotion, gender. IRC;
- Dr. Truong Xuan Truong, PhD Sociology. Field team leader. Communication and community development. ADCOM;
- 3. Dr. Ha Viet Hung, PhD Demography. Demography and data analysis. ADCOM;
- 4. Ms. Nguyen Hong Sam, MA Economics: Enterprise finance and community development. ADCOM;
- Ms. Nguyen Kim Thai, BA Engineering. Water and sanitation technology and environmental engineering. ADCOM;

- Ms. Ho Kim Uyen, MA Sociology. Community development and health. ADCOM;
- Mr. Le Duc Hanh, PhD candidate in Social Anthropology. Household perspectives. ADCOM;
- 8. Mr. Nguyen Tuan Minh, MA Sociology. Data analysis. ADCOM;
- 9. Ms. Nguyen Nhu Trang, BA Sociology. Gender and development. ADCOM;
- 10. Ms. Dinh Ngoc Bich, MBA: Middle and small-scale commercial enterprises. ADCOM.

Annex 3: Participants and Feedback, First Consultative Meeting (Hanoi, Vietnam; 06 March 2009)

Participants

1	J.S.J. Sujeewandas	World Vision	
2	Tran Thi Tuyet Hanh	CEEN/HSPH	
3	Lene Jensen	DANIDA/RWSS-NTP2	
4	Hoang Trung Thanh	World Vision	
5	Chris Tretheway	WSP/SAWAP	
6	Jacqueline Devine	WSP Washington	
7	Tran Thanh Thuy	Care Vietnam	
8	Juhani Efraimsson	WS & Small Tower	
9	Ha Van Mang	CEEN	
10	Ta Thuong Huyen	CEEN	
11	Phan Thanh Son	NCERWASS	
12	Nguyen Xuan Quang	MARD	
13	Dang Huong Giang	Vietnam Women's Union	
14	Tran Thi Kieu Hanh	Vietnam Children's Fund	
15	Le Thanh Chung	Bank for Social Policy of Vietnam	
16	Nguyen Danh Soan	RWSSP/MARD	
17	Do Thuy Trang	National Institute of Hygiene and Epidemiology, SANIVAT	
18	Dang Thi Van Ha	Institute of Environmental Sciences and Engineering, CEFACOM	
19	Pham Duc Phuc	SANIVAT	
20	Hoang Thuy Loan	Institute of Environmental Sciences and Engineering, CEFAC	
21	Nguyen Hong Sam	VIWASE	
22	Dang Quoc Viet	World Vision	
23	Do Manh Cuong	MoH, Healthy and Environment Division	
24	Dinh Ngoc Bich	Vietnam Academy of Social Sciences	
25	Nghiem Thi Duc	IDE (International Development Enterprises)	
26	Nguyen Phuoc Binh Thanh	RNE (Royal Netherlands Embassy)	
27	Nguyen Dinh Dung	PATH	
28	Nguyen Duy Thinh	SRD	
29	Nguyen Tra	SNV	
30	Nguyen Thanh Hien	UNICEF	
31	Nguyen Minh Huong	Vietnam News	
32	Rick Mc. Goman	VUFO–NGO Resource Centre Vietnam	
33	Kari Mukula	FINNIDA	

Feedback

The participants suggested adding the following areas of attention to the study design:

- Institutional analysis
- Legal framework/rules & regulations at local level (district & commune)
- Limitations of current technologies/technology choices:
 - o convenience of different models/user satisfaction
 - o environmental aspects
 - o degree to which users made suggestions for design
 - o adaptations to local physical conditions and customs in the study

- Role divisions between public and private sectors and the communities
- Hygiene behaviors—as promoted and actual influence
- Health impacts
- Differences between regions and communes and reasons
- Quality of toilets
 - o Standards for different types
 - o Differences in quality over time
- Exchange of study questions with MoH & IDE
- Cooperation with Cost-Benefit Study for World Bank.

Annex 4: Participants, Second Consultative Meeting (Hanoi, Vietnam; 08 September 2009)

Name

Organization

ADCOM Ms. Nguyen Nhy Trang Ms. Dinh Ngoc Bich ADCOM Mr. Nguyen Danh Soan RWSSP/MARD Ms. Lene Jensen Rural Water Supply and Sanitation National Target Program Ms. Nguyen Thuy Ai Centre for Rural Water Supply and Environmental Sanitation (CERWASS) Ms. Pham Bich Ngoc RWSSP/MARD Ms. Lê Thi Minh Hanh RWSSP/MARD Ms. Emeline Cammack RWSSP/MARD Ms. Nguyen Thi Hong Diem MoH, Preventive Medicine Department Mr. Pham Sy Liem Vietnam Federation of Civil Engineering Association Administration of Technical Infrastructure/Ministry of Construction Ms. Nguyen Hong Khanh Mr. Cao Xuân Ngọc Health Care Department, Hậu Lộc District, Thanh Hoa Province Mr. Nguyễn Bá Phương Health Care Department, Tĩnh Gia District, Thanh Hoa Province Vietnamese Women's Union Ms. Tran Thi Hong WSP Vietnam Ms. Nguyen Kim Nga WSP Vietnam Ms. Nguyen Hien Minh Ms. Isabel C. Blackett WSP Regional Team, Jakarta Ms. Jacqueline Devine WSP Washington Ms. Nguyen Diem Hang World Bank/WSP World Bank/WSP/SAWAP Mr. Chris Trethewey Ms. Nghiêm Thị Đức IDE Vietnam Mr. Nguyễn Quý Hòa PLAN Vietnam Ms. Nguyễn Dịu Hiền CARE Vietnam Mr. Ahmar Hashmi PATH Mr. Nguyen Van Son UNICEF SNV Mr. Đô Thanh Lâm **SNV** Mr. Bruck Aregai Ms. Nguyen Lam Giang **HELVETAS** KfW Bankengruppe Mr. Dietmar Wenz Mr. Oskar Kass **FINNIDA** WHO Mr. Ton Tuan Nghia Ms. Tran Thi Kieu Hanh Vietnam Children's Fund Mr. Do Thuy Trang SANIVAT Project, National Institute of Hygiene and Epidemiology, Hanoi School of Public Health (NIHE-HSPH)

SANIVAT Project, National Institute of Hygiene and Epidemiology,

Mr. Vuong Tuan Anh

Hanoi School of Public Health (NIHE-HSPH) East Meets West Foundation (EMWF) Ms. Minh Chau Nguyen Ms Phan Huyen Dan CEFACOM Institute of Environmental Sciences and Engineering Ms. Christine Sijbesma IRC International Water and Sanitation Centre, The Hague Dr. Truong Xuan Truong ADCOM ADCOM Consultant Firm Mr Le Duc Phuc Mr. Kimberley Patrick FrOG Tech Representative Office Ms. Ngoc Dung BORDA Mr. Nguyen Van Hung BORDA Ms. Nguyen Thu Ha Lien Aid Mr. Thomas Janny FRC Ms. Cao Thi Van Hau FRC Mr Ngo Quoc Dung CWS Mr Nguyen Van Ty CWS Oxfam GB Mr. Nguyen Tri Dung Mr. Pierre BOUGAUD EAST Mr. Karem ABOU-SAMRA EAST Ms. Tran Thi Thu An UNICEF Rural Sanitation Marketing Study Ms. Truong Thuy Hang Ms. Nguyen Nhu Trang Rural Sanitation Marketing Study Mr. Antti Nykänen Water and Sanitation Program for Small Towns in Vietnam Ms. Pham Thu Huong UN-HABITAT/Water for Asian Cities (WAC) Ms. Nguyen Thi Hong Hai ADCOM Ms. Phung Thi Yen ADCOM Ms. Tran Thi Xuan Thuy ADCOM Mr. Le Ngoc Binh ADCOM Mr. Ha Viet Hung ADCOM Mr. Nguyen Tuan Minh ADCOM Ms. Nguyen Thi Hang ADCOM Mr. Nguyen Viet Hung National Institute of Hygiene and Epidemiology, Hanoi School of Public Health (NIHE-HSPH) Water Resources Development and Conservation Centre (TERCOD) Mr. Le Sy Thang SANIVAT Project, National Institute of Hygiene and Epidemiology, Ms. Le Thi Thanh Xuan Hanoi School of Public Health (NIHE-HSPH) Ms. Duong Tu Oanh **NCERWASS** Mr. Nguyen Van Quang **IDE** Vietnam Mr. Eduardo Martin Cooperación al Desarrollo y Promoción de Actividades Asistenciales (CODESPA)/National Office

Annex 5: Functionaries Interviewed

#	District	Province	Functionary Interviewed	
1	Tinh Gia	Thanh Hoa	Vice Director, Tinh Gia District Health Care Centre	
2	Tinh Gia	Thanh Hoa	Vice Director, District Health Care Centre	
3	Thang Binh	Quang Nam	Vice Chairman, District People's Committee	
4	Nui Thanh	Quang Nam	Chairman, District People's Committee	
#	Province	Functionary Interviewed		
1	Thanh Hoa	Vice Director, CERWASS		
2	Quang Nam	Vice Director, Centre for Preventive Medicine		

3 Quang Nam Vice Director, CERWASS

#	Commune	District	Province	Functionary Interviewed
1	My Loc	Hau Loc	Thanh Hoa	Chairman, Commune's People's Committee
2	Hai Thanh	Tinh Gia	Thanh Hoa	Vice Chairman, Commune's People's Committee
3	Hai Thanh	Tinh Gia	Thanh Hoa	Head, Cultural and Social Affairs
4	Tinh Hai	Tinh Gia	Thanh Hoa	Vice Chairman, Commune's People's Committee
5	Tinh Hai	Tinh Gia	Thanh Hoa	Head, Board of Culture and Communication
6	Binh Trieu	Thang Binh	Quang Nam	Vice Chairman, Commune's People's Committee
7	Binh Trieu	Thang Binh	Quang Nam	Head, Board of Culture and Communication
8	Tam Hoa	Nui Thanh	Quang Nam	Chairman, Commune's People's Committee
9	Tam Hoa	Nui Thanh	Quang Nam	Head, Cultural and Social Affairs
10	Tam Anh	Nui Thanh	Quang Nam	Vice Chairman, Commune's People's Committee

#	National Level	Institution	Functionary Interviewed	
1		National Center for Water and Rural Sanitation	Deputy Director	
2	3 Vietnamese4 Authorities5		Head, Communication Department	
3		Ministry of Llochth	Health Expert, Preventive Medicine Department	
4		Ministry of Health	DANIDA Adviser	
5			Vice Head, Department for Education	
6		Vietnam Women's Union	Vice Head, Propaganda and Training Unit	
7	B External Agencies	AusAID	Senior Program Officer, Water and Sanitation	
8		Dutch Development Organization SNV	Adviser, Sanitation Marketing Program	
9		IDE	Coordinator, Rural Sanitation Marketing	
			Program	
10		UNICEF	Manager, Program for	
			Water-Sanitation-Environment	
11		DANIDA	Program Officer, Water and Sanitation	
12	Private Sector	Toto Industries	Manager	

Annex 6: Quality Standards for Sanitary Toilets, Ministry of Health Vietnam

Construction

Double-Vault Composting Toilet

- a. Avoid building in regularly flooded areas
- b. Distance from clean water source at least 10m
- c. Excreta storage is not below ground; the wall of the storage vault is at least 20cm higher than the land
- d. The excreta storage vault has a tight cover without cracks
- e. Floor is smooth and urine or water won't stagnate
- f. Toilet platform has water seal

Ventilated Improved Pit Toilet

- a. Avoid building in regularly flooded areas
- b. Distance from clean water source at least 10m
- c. Floor and water seals are smooth and urine or water won't stagnate
- d. If the toilet has a water seal, it is undamaged and filled with water
- e. The hole for excreta has a cover
- f. The toilet is rainwater proof
- g. Ventilation pipe has a diameter of at least 9cm and is at least 40cm higher than the toilet roof, and has a fly screen

Single Vault Pour Flush Toilet

- a. Walls provide privacy and are water proof
- b. Vault entrance is cemented with water-proof material
- c. Floor and water seal are smooth and urine or water won't stagnate
- d. Water seal, it is undamaged and filled with water
- e. The toilet roof is rainwater-proof
- f. Fluids from excreta storage tank do not flood the floor or are not absorbed by it

Septic Tank Toilet

- a. Treatment storage has three parts
- b. Excreta storage tank is not sunk
- c. The cover of the excreta storage tank is tightly coated without any cracks
- d. Floor is smooth and urine or water won't stagnate

- e. Toilet platform has a water seal
- f. Vault has a ventilation pipe

Hygiene Operation and Use

Double-Vault Composting Toilet

- a. The floor is clean without excreta or excreta-soiled paper
- b. Waste papers are thrown in the hole or a basket, and hole or basket is closed with a cover
- c. No bad smell
- d. No flies or insects in the toilets
- e. Enough water at hand to flush the toilet after use
- f. No mosquito larva in water storage (if present) and urine storage
- g. Excreta are not taken out of the compost vault within6 months after closing the vault to excreta disposal
- h. The hole used is always shut, vault is tight

Ventilated Improved Pit Toilet

- a. The floor is clean without excreta or excreta-soiled paper
- b. Waste papers are thrown in the hole or a basket, and hole or basket is closed with a cover
- c. Have enough water at hand to flush the toilet after use
- d. No bad smell
- e. No flies or insects in the toilets
- f. No mosquito larva in water storage (if present) and urine storage
- g. Toilet hole is always tightly shut

Single Vault Pour Flush Toilet

- a. Enough water for cleansing and flushing
- b. No bad smell
- c. The floor is clean without excreta or excreta-soiled paper
- d. Toilet paper is put into the hole (if it is self destroyed), or into waste baskets with cover
- e. No flies in the toilets
- f. No mosquito larvae in water storage

- g. Toilet platform is clean, no excreta or excreta smears visible
- h. Toilet is rainwater proof

Septic Tank Toilet

- a. Toilet has enough water for cleansing and flushing
- b. No mosquito larvae in water storage reservoir
- c. No bad smell
- d. Water from treatment storage tank runs to absorbing hole or sewer and doesn't flow freely around

- e. Toilet floor is smooth and urine or water won't stagnate
- f. Toilet paper is put into the hole (if toilet is flushable), or into a waste basket with cover
- g. No flies in the toilets
- h. Toilet platform is clean, no excreta or excreta smears visible
- i. Toilet is rainwater proof

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