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Master of Integrated Water Management

# Integrating Sanitation Marketing into a National Program

A case study in Vietnam



By: Hong Hanh Nguyen

## Acknowledgements

This report is based on the work carried out by the International Development Enterprises (IDE) in Vietnam. Although this report contributes to IDE, the views presented are the author's alone.

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## Executive Summary

In recent years, Vietnam has consistently achieved high annual rates of economic growth that have brought millions of people above the poverty line. However, some aspects of development are not being given sufficient attention, causing severe impacts on the society as well as the environment. Sanitation, a basic human need, is one such aspect. WSP (2008) found that poor sanitation has annually caused a loss of approximately 1.3% of GDP of the country.

During the last decade, most rural sanitation improvement projects have been carried out based on a supply-driven approach associated with toilet subsidies, achieving little progress in access to sanitation in rural Vietnam (Frias and Mukherjee, 2005). Sanitation marketing is an emerging innovation which offers a demand-driven approach, building on the benefits that are perceived by users, to ensure that communities have access to more sustained sanitation services (Cairncross, 2004).

In 2000, the Government of Vietnam issued the National Rural Water Supply and Sanitation Strategy up to 2020 which declared the adoption of demand-responsive approaches and decentralized governance in the implementation of the second National Target Program (NTP II) from 2006 to 2010 (GoVN, 2000). Since 2003, International Development Enterprises (IDE), a non-profit development organisation, has implemented several rural sanitation marketing pilot projects in various parts of Vietnam, achieving promising results (Sijbesma et al., 2010, Frias and Mukherjee, 2005).

As a result, the Danish International Development Agency (DANIDA) has supported IDE in collaboration with the Health Environment Agency of the Ministry of Health (MOH) (HEMA) to implement a rural sanitation marketing pilot project within the NTP II program in Quang Tri province since 2010. The objectives of this pilot project are to:

- ❖ Examine whether a sanitation marketing model can be integrated into the NTP framework;
- ❖ Provide technical recommendations and social marketing design templates for scaling up a sanitation marketing approach in the broader central region of Vietnam.

This report, which results from a 12-week internship, contributes to IDE Vietnam, by providing an analysis of the potential as well as the constraints for integrating sanitation marketing into the NTP II program. A variety of research methods are used in this study, consisting of a desktop literature review and fieldwork in Vietnam. The fieldwork included reviewing project documents; consulting with IDE staff, government staffs and independent consultants; carrying out a qualitative study on sanitation markets; participating in a national conference; and clarifying evidence through follow-up telephone calls.

The findings from this study reveal that demand for sanitation is existent in study communes in Quang Tri and access to sanitation can be improved through offering appropriate toilets at an affordable cost. The concern is that the strategies of both government agencies and IDE lack an environmental focus due to many institutional and social constraints.

In addition, there is evidence that the National Strategy and policy for RWSS are contradicted by the financing mechanism for implementation of the NTP program. To overcome such a contradiction, donor attention is crucial in strengthening accountability of the NTP program implementation and supporting oversight by civil society and local recipients of finance and sanitation service delivery.

Lastly, the Vietnamese national targets for rural sanitation can only be achieved by integration of good local planning and sound policies, effective institutions at all levels, up-to-date legislation and regulations, and fora and mechanisms for active participation of the private sector and civil society.

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## Acronyms

ADCOM	ADCOM Environment and Community Development Consultant JSC
AusAID	Australian Government Overseas Aid Program
CERWASS	Centre for Rural Water Supply and Environmental Sanitation
CPM	Centre of Preventive Medicine
DANIDA	Danish International Development Assistance
DARD	Department of Agriculture & Rural Development of provinces
DFID	Department for International Development (United Kingdom)
DOH	Department of Health of provinces
GoVN	Government of Vietnam
HEMA	Health Environment Management Agency of the MOH
IDE	International Development Enterprises
IEC	Information-Education-Communication
IRC	International Water and Sanitation Centre
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goals
MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOH	Ministry of Health
MOLISA	Ministry of Labour, Invalids and Social Affairs
MONRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
NGO	Non-governmental Organisation
NTP	National Target Program
RWSS	Rural Water Supply and Sanitation
RWSS-NTP	Rural Water Supply and Sanitation – National Target Program
RWSSP	Rural Water Supply and Sanitation Partnership
USD	United States Dollar
VLSS	The Vietnam Household Living Standards Survey
VND	Vietnam Dong (national currency)
VNHS	The Vietnam National Health Survey
VWU	Vietnam Women’s Union
WSSD	World Summit on Sustainable Development



## 1. Introduction

### 1.1 Background

In this report, sanitation is defined as *'a process whereby people demand, effect and sustain a hygienic and healthy environment for themselves'* (UNICEF and USAID-EHP, 1997). This can be achieved through a combination of *hardware* (toilets), *hygiene promotion* and other supporting *software activities*, and the development of an *enabling environment* to ensure that hardware and software can be delivered (Scott et al., 2003).

Like many other countries in the Southeast Asia region, Vietnam is on a development path that has been lifting millions of people out of poverty and improving their quality of life. In the economic progress, some aspects of development are being neglected, especially in the rural areas. Sanitation, a basic human need, is one of such aspects. In 2008, WSP carried out a study on the economic impacts of sanitation in Vietnam. The investigation indicates that poor sanitation has contributed an annual loss of approximately USD780 million to the national economy, equivalent to 1.3% of the GDP in 2005 (WSP, 2008).

Over the past few decades, sanitation interventions in rural Vietnam have been infrastructure-focused and dependent on subsidies for toilets (Frias and Mukherjee, 2005). Such models, which are based on the supply-driven approach, have a poor record in investment efficiency, use effectiveness, service sustainability, and scaling up (Cairncross, 1992).

Sanitation innovations are now emerging, which have evolved over the recent years as a move from supply-driven programming to demand-driven programming, with a focus on engaging communities, creating demand for sanitation, and supporting the development of sustainable systems and appropriate technologies (UNICEF, 2010). Cairncross (2004) suggested that the marketing of sanitation based on the benefits perceived by users offers a demand-driven approach to ensure that communities have access to more sustained sanitation services.

In 2000, the Government of Vietnam announced the National Rural Water Supply and Sanitation Strategy up to the year 2020 which states the need for adopting a demand responsive approach and socialization of investments in the rural water supply and sanitation sector (GoVN, 2000). However, there is evidence that the second National Target Program (NTP II) for rural water supply and sanitation (RWSS) has been implemented since 2006 and will be completed by 2010 based on hardware subsidies, and lacking investment in software activities (Cole and Vuong, 2009).

International Development Enterprises (IDE), a non-profit development organisation, has implemented several rural sanitation marketing pilot projects in various parts of Vietnam since 2003. Such pilot projects have successfully stimulated the households' demand for improved sanitation and capacities from the local suppliers, providing a promising sanitation innovation for the national governmental programs (Sijbesma et al., 2010, Frias and Mukherjee, 2005).

Since 2010, the Danish International Development Agency (DANIDA) has supported IDE in collaboration with the Health Environment Agency of the Ministry of Health (MOH) (HEMA) to implement a rural sanitation marketing pilot project in Quang Tri, a province in the central region of Vietnam. The objectives of this pilot project are to:

- ❖ Examine whether a sanitation marketing model can be integrated into the NTP framework;
- ❖ Provide technical recommendations and social marketing design templates for scaling up a sanitation marketing approach in the broader central region of Vietnam.

The author was able to participate in this pilot project implementation as an intern under the supervision of Mr. Nguyen Van Quang, the national director of IDE Vietnam. This report contributes to IDE Vietnam, providing an analysis of the potentials as well as the constraints for integrating sanitation marketing as a demand responsive approach into the national governmental programs in Vietnam.

## 1.2 Methodology

The project of which this report is the outcome was carried out as an individual, self-directed project to fulfil the requirements of the Masters of Integrated Water Management, granted by the International Water Centre in Brisbane, Australia.

The author spent twelve weeks in Vietnam, working as an intern for IDE Vietnam, and accordingly participated in an investigation into the sanitation marketing and the analysis of the data gathered in the target communes of Quang Tri province. Details of this sanitation market research are provided in the following chapters.

This study employed a variety of research methods such as carrying out the literature review and conducting fieldwork in Vietnam. The fieldwork included:

- ❖ Reviewing project documents, records and relevant literature;
- ❖ Consulting and discussing with IDE staff, implementing government staff, and independent consultants of the pilot project;
- ❖ Participating in qualitative research on sanitation markets in the target areas;
- ❖ Analysing the qualitative data;
- ❖ Participating in the National Conference on announcing the results of the NTP II program from 2006 to 2010 held by the Ministry of Agriculture and Rural Development (MARD);
- ❖ Clarifying data and collecting evidence from follow-up telephone calls.

## 1.3 Limitations

Given one semester for undertaking the project, the internship with IDE Vietnam was arranged early since November 2010. However, it was not possible to obtain information about the pilot project before the internship. Therefore, the study design was dependent on the ongoing plans and schedule of the project activities in Vietnam, and hence a couple of the project stages were undertaken within a somewhat uncertain timeframe.

In addition, the author did not witness all stages of the pilot project from its inception to completion, thus the understanding of the whole sanitation marketing implementation process is limited to the analysis of the secondary data sources, the observation of some project activities, the discussion and clarification of information with IDE staff and Dak Rong district Centre of Medicine's officers who conducted the sanitation marketing projects in Quang Tri province.

The study process was also limited by time availability and human constraints. The author faced difficulties in familiarising herself with qualitative research methods, interview techniques, and relevant formalities.

## 1.4 Report structure

The structure of the report is as follows:

**Chapter 1** provides a background of report objectives, methodology and report structure.

**Chapter 2** summarizes the global ideological context of sanitation sector, focusing on sanitation promotion approaches.

**Chapter 3** provides an overview of the sanitation sector in Vietnam, exploring sanitation coverage and impacts of poor sanitation as well as the institutional arrangements and key actors in the sanitation sector.

**Chapter 4** summarizes the sanitation marketing pilot projects in Vietnam carried out by IDE and details the pilot project on 'Integrating sanitation marketing into the National Target Program for RWSS', focusing on the findings from the market research in Trieu Phong district, Quang Tri province.

**Chapter 5** analyses the gathered information and discusses the barriers to integrating a sanitation marketing approach into the NTP program, using a political economy of sanitation analysis.

**Chapter 6** provides the conclusions and recommendations for the next steps, and is followed by the list of References and the Annexes.

## 2. Global ideological context of the sanitation sector

### 2.1 Approaches in the sanitation sector

#### 2.1.1 Supply-driven approach

Before the 1990s, a supply-driven approach was the norm to plan and implement sanitation programs both in urban and rural areas in developing countries. According to IWA's Water wiki dictionary, a supply-driven sanitation approach is *"one where the process of building toilet is driven by the implementer taking little or no account of the householder's attitudes, needs and constraints. Such implementers usually have pre-designed products which are pushed downstream towards the households in the target area. The implementers commonly have to apply pressure or provide incentives in the form of hardware subsidies to the householder in order to maintain downstream momentum and to meet pre-determined toilet building targets."*<sup>1</sup>

Based on this approach, issues about the preferences, behaviour and conditions of the sanitation users are not addressed, which has caused many problems as indicated in empirical evidences and academic studies (Cairncross, 1992, Wright, 1997, Jenkins and Sugden, 2006, Luthi et al., 2011). The likely consequences of this approach include over-provision of infrastructure, creating costly and unsustainable schemes, resulting in a waste of resources (Wright, 1997) as well as repeated failures to generate demand and behaviour changes among households, to produce sustainable services and products, and generate scaling-up (Jenkins and Sugden, 2006).

#### Box 2.1 - The debate on sanitation subsidies

Given that the first question is whether sanitation should be subsidized, Jenkins and Sugden (2006) pointed out that subsidizing sanitation is justified by proponents on the grounds that the development benefits and the public health resulting from adequate sanitation go beyond the private benefits which the individual gains by using toilets rather than defecating in the open. For these fundamental reasons, most governments and many organisations attempt to support the vulnerable and the poor to access improved sanitation in ways that promote social equity by providing them with hardware subsidies (Evans et al., 2009). When subsidies are poorly designed and managed, they can have negative impacts on the viability of the sector as well as unexpected consequences on the community and household behaviours and outcomes as indicated below (Evans et al., 2009). Therefore, the debate on toilet subsidies should concentrate on the **how** issue.

**Consequences for the sanitation sector** (Jenkins and Sugden, 2006, Evans et al., 2009)

- Costly – Providing long term subsidies for building toilets is simply expensive and unsustainable, making the replication and scaling up of such programs impossible and prohibitive.
- Other sources of funding may be distorted by subsidies - In addition to raising costs, the delivery of subsidies impacts on 'crowding out' other sources of funding (from households) who prefer to wait for 'free' goods rather than paying for their own investments or accessing credit services.
- Poor use of public money – It is likely that only one producer is granted permission to supply toilets to the households, this can distort the behaviour of the private supply market, resulting in inadequate production.

<sup>1</sup> Source: <http://www.iwawaterwiki.org/xwiki/bin/view/Articles/SanlexiconS-T> (viewed on 14th April 2011)

**Consequences at the household level** (Evans et al., 2009, Jenkins and Sugden, 2006)

- Dependency – which occurs when subsidies for building toilets become the norm, households become reliant on subsidies; do not want to make independent investments in toilets, preferring to wait for subsidized services.
- False demand – when households take a subsidized toilet because it is available without real demand for using it.
- Does not reach the poor – which means that subsidies may be captured by the better off and more wealthy households for many reasons, and do not reach the poor who need them most.
- Unsustainable toilets are built – when subsidized toilets are often designed with one particular type regardless various geographical conditions, water scarcity, culture, waste reuse habits etc.

Over recent decades, millions of dollars spent to disseminate toilets through a supply-driven approach associated with hardware subsidies have not worked and are total failures in many cases, especially in Asia and Africa (Cairncross, 2004, Jenkins and Sugden, 2006, Mulenga et al., 2004). These consequences prompted the development and implementation of innovative approaches focusing on cost recovery and the participation of communities in sanitation programs.

**2.1.2 Changing the paradigm: From supply to demand-driven approaches**

Given the shift from supply to demand orientation of sanitation improvement projects, Peal et al. (2010) referred to the term sanitation ‘software’ approaches to social interventions and/or interactions that do one (or more) of the five following objectives:

1. Empowering individuals, schools and/or communities with information and knowledge;
2. Enabling changes in behaviour;
3. Creating demand for sanitation services;
4. Facilitating establishment of supply chains;
5. Improving the planning and implementation of sanitation projects.

For over the last 40 years, development agencies, NGOs, national and local governments have applied a wide range of ‘software’ approaches for sanitation programs in urban, informal-urban and rural areas. Figure 2.1 illustrates the programming frameworks (Group F) which have been recently deployed in sanitation improvement projects including Demand Responsive Approach (DRA), Public Private Partnerships (PPPs), and Hygiene Improvement Framework (HIF). Definitions of these approaches are provided in Box 2.2.

Under such frameworks, to create demand and supply chains, there are two most notable sanitation promotion approaches (Group S) which are (S1) Community-Led Total Sanitation and (S2) Sanitation Marketing. Both groups have been using techniques which are not wholly new and there are some overlaps between them, but they represent a remarkable shift of thinking for many national programs in developing countries (Peal et al., 2010). Further descriptions of Group S are provided in the next section.



**Figure 2.1 – Framework of notable sanitation software approaches (Adapted from Peal et al. (2010))**

**Box 2.2 – Definitions of notable programming frameworks for sanitation programs**

**F1. Demand Responsive Approach (DRA)** is defined by WSP (2000) as the approach allowing the demands of the users as individuals and as a community to guide the key investment decisions, thereby, clear links are established between what users want and what they are willing to pay for cash, labour, and time. The community must be also involved in all operations to ensure sustainability, user satisfaction with the service and to obtain the legitimacy of governance.

Taylor (2000) believed that one of the dangers of the DRA is that the poor may be required to pay the full cost of sanitation services due to the target of demand-driven approach on cost recovery.

**F2. Public Private Partnerships (PPPs):** indicates the forms of partnership in which the government establishes arrangements with the private sector who provides some form of investment (Plummer, 2000). However, it is important that service users should be involved in the decision-making process and the service provision to ensure the success of PPPs (Mulenga et al., 2004).

**F3. Hygiene Improvement Framework (HIF) (see Annex 1):** is a comprehensive framework which attempts to prevent diarrhoea by addressing three key components: providing access to the necessary hardware or technology, promoting healthy behaviours and support for an enabling environment to ensure wide-scale application and sustainability (Peal et al., 2010).

**2.2 Creating demand and supply chains – Sanitation promotion approaches**

It is evident that providing adequate ‘hardware’ was neither the beginning nor the end of the story; experts have recognized that identifying the right ‘software’ to sell people sanitary change is not easy either (Black and Fawcett, 2008). To create demand for sanitation, it is necessary to make people aware of the importance of sanitation as a priority in life, which requires much more effort than just giving them a subsidy (Heierli and Frias, 2007).

In considering sanitation as a process to obtain a hygienic and healthy environment for people, it was ideally perceived that creating demand for sanitation could be achieved by educating people about the health benefits for each individual and the whole community. However, research has indicated that households in developing countries rate health virtues quite low in the list of reasons

for building toilets (Jenkins and Curtis, 2005, Jenkins and Sugden, 2006, Black and Fawcett, 2008, Heierli and Frias, 2007). Although the main societal reasons for investing in sanitation are to improve public health and gain economic returns, these reasons contrast significantly with those that motivate individual demands for improved sanitation as in Table 2.1 below.

**Table 2.1 – Stated benefits of improved sanitation from the household and public perspectives**

Household Perspective	Society/Public Perspective
Increased comfort	Reduced excreta-related disease burden (morbidity and mortality), leading to reduced public healthcare costs and increased economic productivity
Increased privacy	
Increased convenience	
Increased safety for women and children	Increased attendance by girls at school, leading to broad development gains associated with female education
Personal dignity and social status	
Being modern or more urbanized	
Cleanliness	Reduced contamination of groundwater and surface water resources
Lack of smell and flies	Reduced environmental damage to ecosystems
Less embarrassment with visitors	Increased safety of agricultural and food products leading to more export
Reduced illness and accidents	Nutrient recovery; reduced waste generation and disposal costs (ecological sanitation)
Reduced conflict with neighbours	Cleaner neighbourhoods
Good health in a broad cultural sense, often linked to avoidance of disgusting matter, especially faeces	Less smell and flies in public places
Increased property value and rental income	More tourism
Eased restricted mobility due to illness and old age	National or community pride
Manure for crops and reduced fertilizer costs (ecological sanitation)	

Source: Jenkins and Sugden (2006)

Accordingly, it is now believed that when people are aware of diseases and their causes, this does not necessarily mean that they will be aware of how to prevent their spread; in short, hygiene education is not the answer (Peal et al., 2010, Black and Fawcett, 2008).

Nevertheless, the demand for sanitation exists and shows up in millions of households who pay for sanitation facilities and services from local private suppliers by their own efforts in the developing world (Jenkins and Sugden, 2006, Heierli and Frias, 2007). By understanding the real and well-established motivations, concerns and constraints of households and community, and the supply chains of sanitation services that households want and pay for, practitioners can help to bring both sustained changes in their hygiene behaviour and demand for sanitation (Peal et al., 2010). To facilitate this process, a number of sanitation software approaches were invented, including two most notable approaches: Community-Led Total Sanitation (CLTS) and Sanitation Marketing.

### **2.2.1 Community-Led Total Sanitation**

Community-Led Total Sanitation (CLTS) is *'an integrated approach to achieving and sustaining open defecation free (ODF) status. It entails the facilitation of the community's analysis of their sanitation profile, their practices of defecation and the consequences, leading to collective action to become ODF'* (Kar and Chambers, 2008).

CLTS utilizes participatory rural appraisal (PRA) techniques to raise awareness of the risk caused by open defecation and to reinforce natural senses of 'disgust' and 'shame' about this practice. A number of key activities are carried out including (Peal et al., 2010): (i) Focus group discussions; (ii) Transect walks; (iii) Mapping of open defecation sites; (iv) 'Shit' calculations which estimate the total volume of faeces deposited and circulating in the community.

This approach was invented in Bangladesh in 1999 and has been evolving and spreading fast in many countries. Emerging evidence shows that CLTS is an effective approach to improve hygiene and sanitation behaviours where the baseline behaviour is open defecation (Peal et al., 2010).

Chambers (2009) pointed out the basic principles of CLTS which were revealed from successful and effective practices including:

- No external hardware subsidy. Communities install their own toilets by their own resources. The better off help the poor or the weak to handle building toilets by themselves;
- No standardized top-down toilet designs; people make their own decision about toilet models;
- Facilitation, not teaching or preaching. Appraisal and analysis are facilitated but after that triggering, information and encouragement can be provided;
- Creativity and innovation in approach;
- Review, reflection, learning and change.

The strengths of this approach are summarized by Peal et al. (2010) that it does not rely on hardware subsidies and sanitation services provided by external agencies to address self-identified sanitation problems locally. It not only encourages and empowers people without prescribing to get onto the sanitation ladder at affordable levels, but also empowers natural community leaders and facilitators who are able to spread the effect and use the momentum of social cohesion and collective actions to solve other issues in the community (Peal et al., 2010).

CLTS has a number of major obstacles which have been revealed from practices up to date. First, due to the essence of participatory approaches, the success of CLTS relies on the quality and motivation of the facilitators (Peal et al., 2010). Under the external pressure of scaling-up, from institutional factors, an additional concern relates to the facilitation which might focus on the ODF claim rather than behaviour change (Chambers, 2009). Second, it has been found that CLTS is better adopted where there has been no previous sanitation promotion intervention, especially with hardware subsidies; however, it does not mean that CLTS is not possibly successful under those circumstances (Peal et al., 2010). Finally, empirical evidence of the implementation of CLTS in Cambodia demonstrated that the lifespan of affordable toilets built by CLTS interventions can be low, which might lead to reversion from using toilets to defecating in the open, without adequate institutional support (Cousineau, 2009).

### **2.2.2 Sanitation marketing**

The marketing of a good or service works on the principle of a voluntary 'exchange' between consumers and producers where both gain. Social marketing is defined by Weinreich (1999) as 'the use of commercial marketing techniques to promote the adoption of behaviour that will improve the health or well-being of the target audience or of society as a whole'. When this phrase is used in sanitation sectors, it refers to 'sanitation marketing' for approaches to promote sanitation by using marketing techniques (Cairncross, 2004).



On the demand side, this approach considers the target group as potential consumers for sanitation facilities and services, then attempts to understand what motivate them and what they are willing to use and maintain (Jenkins, 2004, Peal et al., 2010). On the supply side, the implementers 'borrow private sector experiences to develop, place and promote appropriate product', in this case it is the toilet or the excreta disposal systems (Peal et al., 2010).

Cairncross (2004) describes what social marketing mean for sanitation by using the four Ps as follows:

- **Product:** this may be an item (toilet) but also be a service (pit emptying) or a practice (hand washing) which people want and are willing to pay for. Therefore, a range of diverse products should be provided to suit a variety of conditions and pockets.
- **Price:** This is the hardest part of marketing sanitation resulting in attempts to keep costs down and offer a range of products with various prices. Hence smart subsidies might be chosen to reach the poor, who also have to overcome social and other costs.
- **Place:** The products must be accessible and available to the customers, which means that the supply chain and information about the product needs to reach the target groups. The critical role of implementers is in facilitating and catalysing the sanitation market to bring suppliers close to customers.
- **Promotion:** Creating demand for the product is the most challenging part of selling sanitation. This can be obtained by promotion, which includes communication with customers by many channels including demonstrations, advertising, mass media, word of mouth, etc. Promotion campaign should be designed based on understanding the drivers of customer demand and their trusted channels (Scott, 2005).

The four expected outcomes of implementing sanitation marketing are also suggested by Cairncross (2004), including:

- It could ensure that people choose to receive the products they want and are willing to pay for.
- It is financially sustainable. The private sector can earn profits by selling sanitation products which are paid for customers, while public funds can be spent more efficiently on product development, market research, and promotion and facilitation activities.
- It is cost-effective and can be replicated. In addition, its effectiveness can be measured by sale figures.
- It not only provides hardware but also requires changes in behaviour. With the marketing approach, it is important that purchasers value, use and maintain sanitation facilities correctly.

The most serious constraint under which the sanitation marketing approach suffers is the prevalent myth of the high cost of sanitation, while people often undervalue its benefits (Cairncross, 2004). Furthermore, people's dependency on hardware subsidies and the technocratic bias of government officials in the provision of sanitation are making the implementation of sanitation marketing more challenging (Cairncross, 2004, Frias and Mukherjee, 2005, Jenkins and Sugden, 2006).

Critics of sanitation marketing raise concerns about whether it might marginalise the poor who have no capital to pay for sanitation facilities and exclude people who have not adopted toilet-use since its emphasis is cost recovery (Jenkins and Sugden, 2006, Peal et al., 2010). Hence smart subsidies

(see Box 2.3) as well as active assistance in financing may be required in association with the marketing process.

**Box 2.3 - What does smart subsidy mean in the sanitation sector?**

IWA Water Wiki dictionary defines smart subsidies in the sanitation sector as *'subsidies that accelerate the rate of toilet adoption without distorting the behaviour of the private supply and have the goal of achieving and maintaining usage and coverage at 100% without the need of further subsidy'*<sup>2</sup>.

WHO (2005) and Evans et al. (2009) suggest some principles for designing smart subsidies in the sanitation sector as the following:

- Subsidies should be designed to obtain the intended policy outcomes. This requires clarification about what the policy objectives are in considering sanitation as a public and social good.
- In considering subsidies as a device to achieve social equity, they should be undertaken in a clear and transparent manner. Hence rigorous monitoring and evaluation will be required in place.
- Subsidies should be used to get leverage or to act as a catalyst for in funding from households and the private sector and to achieve financial sustainability; therefore, concern will focus on what the best possible allocation of public funds to the entire sanitation value chain is.

It is also suggested that sanitation subsidies should be allocated more to sanitation promotion and achieving an enabling environment, with limited and smarter subsidies for hardware when necessary.

### 2.3 Summary

Due to the considerable consequences of supply-driven sanitation interventions, in recent years, there have been emergent sanitation innovations towards a demand-driven approach, including Community-Led Total Sanitation (CLTS) and Sanitation Marketing approaches. Whilst many international researchers, practitioners and development agencies have ideally proven the advantages of such innovative sanitation approaches, there is a need for evidence of these innovations being applied to the various contexts of the sanitation sector from country to country. Hence, the next chapters provide an overview of the sanitation sector in Vietnam and a description of rural sanitation marketing pilot projects carried out by IDE in several provinces of the country.

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<sup>2</sup> <http://www.iwawaterwiki.org/xwiki/bin/view/Articles/SanlexiconS-T#HSmartsubsidy>

### 3. Overview of the sanitation sector in Vietnam

This overview of the sanitation sector is based on a desktop review and interviews conducted by the author.

#### 3.1 Development and Sanitation

Vietnam's population was 84.2 million in 2007, with high population density; the country has to face severe population pressures. In addition, rapid economic growth and environmental issues are not aligned towards sustainable development. According to the State of the Environment in Asia and the Pacific Report (UN, 2005) and Vietnam Environment Monitor Report (MoENR, 2006), Vietnam, along with other Asian countries, has very bad levels of water pollution as a result of economic growth and lack of treatment and proper disposal of wastewater and sewage, with severe ranking for fecal coliforms, biochemical oxygen demand and suspended solids.

##### *Health indicators*

Water pollution and diseases related to inadequate sanitation remain key issues in Vietnam. Premature mortality and infectious diseases are some of the most explicit and severe impacts of poor hygiene and unimproved sanitation, with children, women and the poor the most vulnerably affected.

Annex 2 demonstrates that the low levels of sanitation and clean water supply coverage are correlated with high levels of diarrhoea and stunting of children under 5 years old in various regions of Vietnam.

##### *Economic impacts*

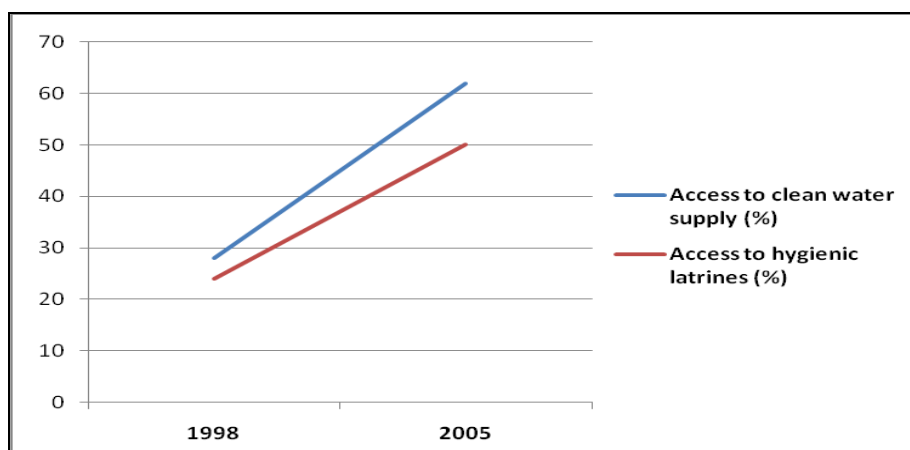
According to the results of WSP's study on the economic impacts of sanitation in Vietnam (2008), poor sanitation leads to significant annual losses to the national economy, amounting to USD780 million, equivalent to 1.3% of GDP in 2005 (see Annex 3). Accordingly, USD9.38 is the loss per capita caused by improper sanitation each year.

In addition to the quantified economic impacts, it is incontestable that there are a range of other severely negative economic and social impacts of poor sanitation. Inevitably, this situation leads to more inequities in society when the households without adequate sanitation tend to become the relatively poorer and more vulnerable groups of society.

#### 3.2 National program for rural sanitation

In 2007, approximately 73% of the total population of Vietnam were living in rural areas, equivalent to 61.7 million people. In 1998, only 24% of population had hygienic toilets. To respond to that situation, the government of Vietnam (GoVN) issued a National Strategy for rural water supply and sanitation up to the year 2020 (GoVN, 2000), policies for financing (MARD, 2003, MARD, 2007), and three national target programs, the National Target Program Phase I (NTP I) from 1999 to 2005 (GoVN, 1998), NTP II from 2006 to 2010 (GoVN, 2006), and NTP III from 2011 to 2015 (AusAID et al., 2011).

According to the results of NTP I, access to clean water supply and sanitation in rural areas increased significantly from 1998 to 2005 as illustrated in Figure 3.1 below (GoVN, 2006). However, the 3.7% annual growth in access to sanitation was obviously more modest than the 4.9% annual growth in access to clean water supply which is mainly because less attention has been put on sanitation than water supply (GoVN, 2006).



**Figure 3.1 - Access to clean water supply and sanitation in rural areas before and after NTP I (GoVN, 2006)**

In 2005, the MOH issued Decision No. 08/2005/QD-BYT to stipulate quality standards for hygienic toilets (see Annex 4). Although the NTP I for RWSS evaluation report showed that 50% of rural households had hygienic toilets in 2005, during the implementation of NTP II, a household survey was conducted to calculate the percentages of households having hygienic toilets in accordance with MOH's new quality standard (GoVN, 2006). Hence, access to hygienic toilets was adjusted accordingly as shown in Figure 3.3 below.

The sanitation targets set by the GoVN for the NTP II for the period from 2006 to 2010 are:

- (i) 70% of rural households to have hygienic toilets;
- (ii) 70% of rural households with livestock to have hygienic livestock pens;
- (iii) All rural primary schools, kindergartens; nurseries, clinic and commune people's committees' offices should have access to hygienic toilets; gradually minimizing environmental pollution in trade villages, especially in food processing villages.

Under the influence of international donors, the new policies have attempted to adopt demand responsive and participatory approaches for implementing the NTP II program, which is clearly stated in the NSRWSS (see Box 3.1). Simultaneously, Information – Education – Communication (IEC) programs are also to be carried out to raise public awareness and enhance capacity building at all levels (GoVN, 2006).

**Box 3.1 – Demand responsive approach in National Strategy for Rural Water Supply and Sanitation by 2020 (GoVN, 2000)**

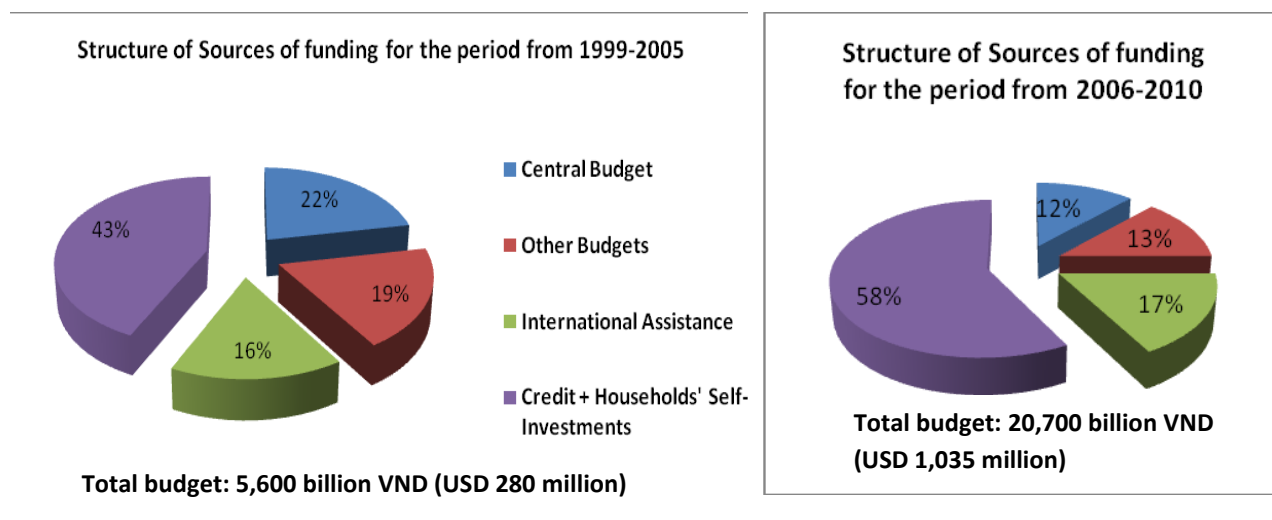
“A Demand responsive approach (DRA) will replace the former supply-driven approach, which means that users, after receiving necessary advice, will:

- Decide on what type of RWSS facilities they want, how they will organize this and how they will pay for them;
- Either construct the facilities by themselves or arrange and pay a constructor to build the facilities;
- Manage the operation and maintenance of all the facilities.

Government and donors will be the providers of guidance, advice and support but they will not do all above tasks for the users.

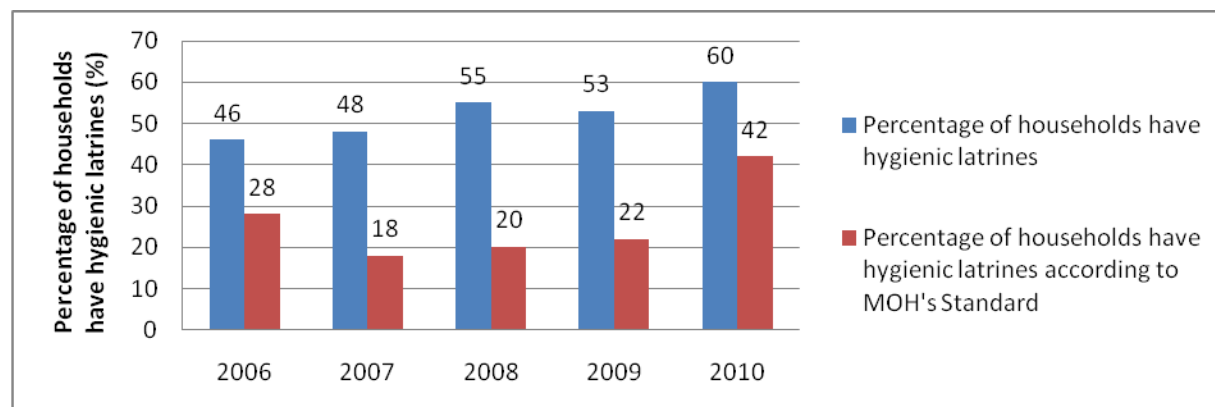
The DRA aims at enhancing to maximize people’s internal strengths, and this approach should be applied the sooner the better, so that by the year 2005 the RWSS national programs will totally follow the mechanism of this approach.”

Figure 3.2 below provides the financing structure of NTP phase I and phase II, in which the largest share of funding for water supply and sanitation facilities belongs to credit for households and households’ investment (43% and 58% respectively). The total budget for implementing NTP phase II increased by almost four times compared to the budget for phase I.



**Figure 3.2 - Structure of sources of funding for the NTP phase I and phase II (MARD, 2011)**

After 5 years of implementation, MARD (2011) reported the results of implementing the NTP II as can be seen in Figure 3.3, in which the access to hygienic toilets in 2010 is 10% lower than the target of 70%.



**Figure 3.3 - Results of the implementation of the NTP II for period from 2006 to 2010 (MARD, 2011)**

According to MARD’s report, in 2010, 11.586.185 households in rural areas had toilets, equivalent to 77%, in which 60% of households have hygienic toilets. This figure is adjusted to 42% under MOH’s standard for hygienic toilets. As can be seen in Figure 3.3, compared to MARD’s figures, MOH reported much lower percentages of hygienic toilets for the whole period of implementing NTP II since 2005. These considerable discrepancies between the figures on hygienic toilet coverage were caused by MOH’s standard which includes not only construction requirements but also good

operation and maintenance for hygienic toilets (see Annex 4). Despite this explanation, the dramatic increase of access to hygienic toilets in accordance with MOH standards from 22% in 2009 to 42% in 2010 makes such figures even more questionable.

In addition, access to water supply and sanitation varies significantly between regions of the country, as shown in Table 3.1.

**Table 3.1 - Access to sanitation by regions in 2010 (MARD, 2011)**

Regions	% Access to hygienic toilets	% Access to hygienic toilets according to MOH's standard
Northern Mountainous Region	56	38
Red River Delta Region	73	61
Northern Central Region	55	40
Coastal Central Region	65	53
Western Highland Regions	52	43
South East Region	71	38
Mekong Delta Region	54	39
National Average	<b>60</b>	<b>42</b>

Furthermore, access to hygienic sanitation was still considerably worse amongst the poor. According to Annex 5, the percentage of the poorest 20% having hygienic toilets is almost 35 times lower than the richest 20%.

Under the status quo, the stated objective of the National Strategy for RWSS, that by the year 2020 all rural people should have hygienic toilets, is unlikely to be achieved.

### 3.3 Key actors of the rural sanitation sector

To implement National Programs for RWSS, a number of ministries have been involved, including:

- The Ministry of Agriculture and Rural Development (MARD);
- The Ministry of Planning and Investment (MPI);
- The Ministry of Health (MOH);
- The Ministry of Natural Resources and Environment (MONRE);
- The Ministry of Finance (MOF);
- The Ministry of Education and Training (MOET);

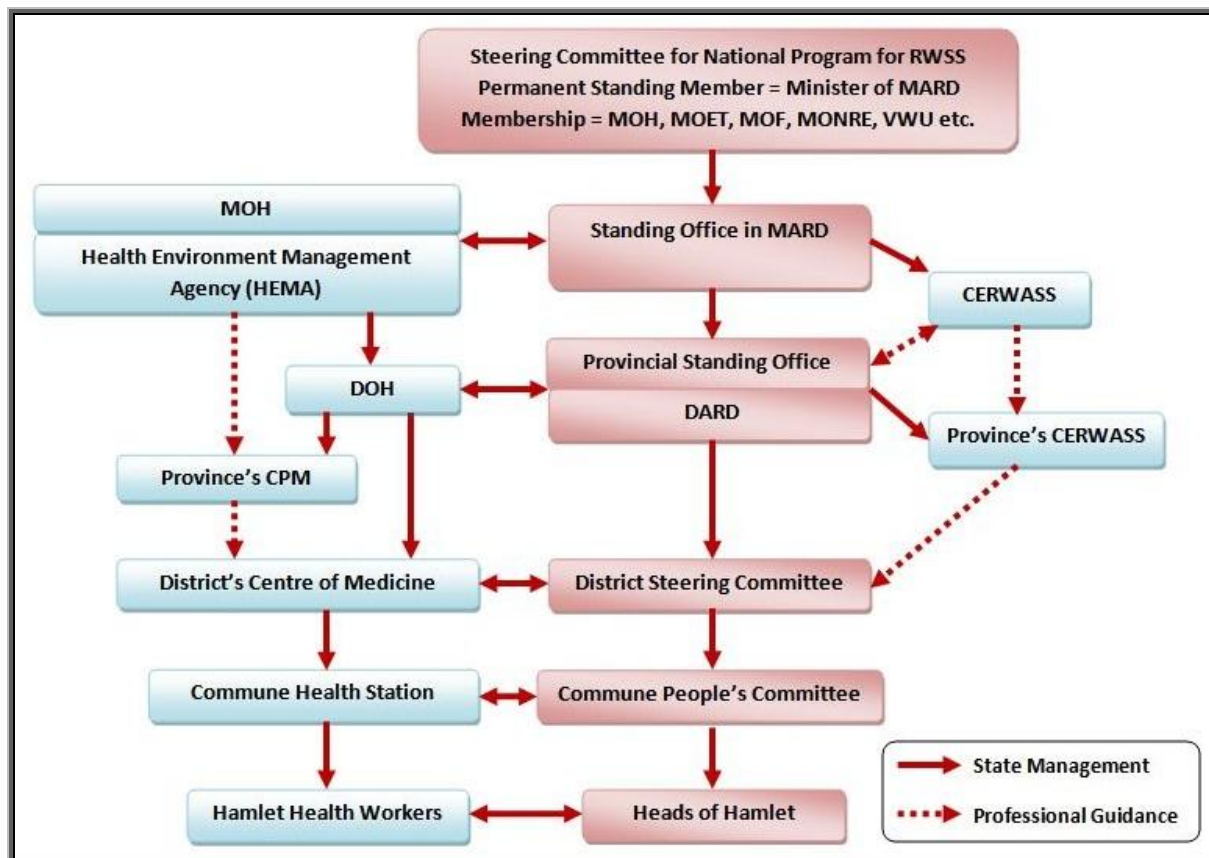
Figure 3.4 below shows a schematic representation of key government agencies involved in the rural sanitation sector at all levels in Vietnam.

#### 3.3.1 The Ministry of Agriculture and Rural Development

For rural water supply and sanitation, MARD is the prime responsible agency to coordinate with other ministries and Provinces' People's Committees for the RWSS National programs until the year 2020. MARD's responsibilities are:

- Coordinating implementation of RWSS programs and projects;
- Coordinating funds for government grants and loans;
- Coordinating the use of donors' funds;
- Supervising and updating the National RWASS Strategy (CERWASS, 2004).

The Centre for Rural Water Supply and Sanitation (CERWASS, under MARD) is the leading agency for planning and providing RWSS services and facilities (CERWASS, 2004). MARD has experience in water supply implementation through CERWASS and the 63 provincial CERWASS.



**Figure 3.4 - Structure of key government agencies involved in the rural sanitation sector of the NTP program**<sup>3</sup>

Uyen Doan Y et al. (2004) found that provincial CERWASS are the main actors in rural water supply projects, but less effort was given to the sanitation component during the implementation of the NTP I. This phenomenon can be explained by several reasons. First, CERWASS has been managed by engineers under a technocratic paradigm, while Jenkins and Sugden (2006) suggested that sanitation requires people-based skills and takes engineers into areas they feel unfamiliar and uncomfortable with. Second, it is favourable for CERWASS engaging contractors to construct water supply systems because the decision-making processes are based at the province or district levels, while sanitation decisions are made at the household level (Uyen Doan Y et al., 2004). In addition, in most cases, the demand for water supply already exists, whereas that for sanitation is often hidden and needs to be stimulated or made explicit before the systems can be constructed (Jenkins and Sugden, 2006).

### 3.3.2 The Ministry of Health

According to the new policy of NTP II (GoVN, 2006), the MOH has key roles in the rural sanitation sector, including:

<sup>3</sup> Summarized by author

- Monitoring and disseminating standards on water quality and hygienic toilets as well as environmental sanitation in rural areas.
- Managing and providing instructions in hygiene; taking responsibility for building public and households' toilets.
- Organizing Information, Education and Communication (IEC) activities and raising public awareness about hygiene and health.
- Coordinating with MARD to draw up an annual plan on rural sanitation.

At the national level, the Health Environment Management Agency of the MOH takes prime responsibility for implementing rural sanitation programs through a vast network of health facilities, trained staff and hamlet health workers at the grass-root level. At province and district levels, the Centre of Preventive Medicine (CPM) is responsible for preventive medicine and primary health care, and CPM's staff are more involved in preventing excreta related diseases through their daily activities. The Commune Health Station, the lowest facility level, has about 5-6 staff including a medical doctor, but they are often overburdened with workload (Uyen Doan Y et al., 2004).

Though the MOH is responsible for building public and household toilets under the policy of the NTP II since 2006, MARD in cooperation with MOF have undertaken the budget allocation and financial arrangements for such components at the central level (GoVN, 2006). This irrational division of roles and responsibilities is discussed further in Chapter 5.

### **3.3.3 Donors**

For international assistance, a group of 16 donors signed an agreement with MARD to support the implementation of RWSS programs (MARD, 2006). To implement the NTP II, the main donors providing RWSS sectoral support were the World Bank, ADB, UNICEF, DANIDA, DFID, and AusAID. For the implementation of NTP III from 2011 to 2015, the three bilateral donors, AusAID, DANIDA and DFID, have promised to provide financial assistance with the following proposed objectives (AusAID et al., 2011):

- Increasing the focus on the poor;
- Focusing on sanitation;
- Ensuring environmental sustainability;
- Establishing a sustainable market on financing for the water supply and sanitation sectors;
- Increasing the effectiveness of the enabling environment.

Based on these objectives, international donors implicitly expressed their anxiety concerning the limited performance of the sanitation component (see Figure 3.3 above) as well as the cost-effectiveness of using international aid funds in the NTP II program. According to several studies supported by DANIDA, even though the demand responsive and participatory approach are mentioned as the key concepts of the NTP policy, it has been found that the provincial implementing agencies have carried out most investments based on a supply-driven or top-down approach (DANIDA, 2005, Cole and Vuong, 2009). Such implementation approaches are blamed for resulting in many inevitable consequences, as found throughout the developing world and indicated in Section 2.1.



### **3.3.4 Mass organisations**

Uyen Doan Y et al. (2004) suggested that the most involved mass organisations in RWSS programs are the Vietnam Women's Union (VWU) and Vietnam Farmers' Association. These mass organizations play effective roles in IEC programs and revolving loan funds and micro-finance through a broad network of representatives reaching to hamlet and village levels with administration at central, provincial, district, and commune levels.

### **3.3.5 NGOs**

The NGO community plays an active role in RWSS sectors in Vietnam. Since the 2000s, some innovative demand-driven approaches, such as sanitation marketing and CLTS, have been deployed in rural sanitation improvement projects by international NGOs, such as IDE, SNV, PLAN and so on, which have contributed alternatives to the governmental sanitation programs. According to the Joint GoVN Donor Review report, it is believed that most NGOs are often effective at working closely with local communities and linking them to local governments, but their levels of integration with the national RWSS system are still poor (Uyen Doan Y et al., 2004).

IDE, or International Development Enterprises, is an international NGO, whose projects are implemented using business principles and a market-driven approach to help the rural poor to invest their way out of poverty. With the funds of DANIDA, Oxfam Hong Kong and CODESPA, IDE has developed a sanitation marketing approach to improve access to sanitation in many parts of Vietnam since 2003. Some promising results have been obtained through the implementation of three sanitation marketing pilot projects which are discussed in the next chapter.

## **3.4 Summary**

Based on the National Strategy for RWSS by 2020, the policy on the RWSS sector is attempting to orient the implementation of national governmental programs towards the demand-responsive approach associated with the socialization of investments in RWSS sector. However, under this new policy, the sanitation component of the NTP program phase I from 1999-2005 and phase II from 2006-2010, which was carried out by two key implementing agencies, the MARD and the MOH, has still lagged considerably behind water supply. In addition, the figures of the NTP program results provided by both government agencies are questionable. Therefore, the donors have proposed some new strategies for the NTP program phase III from 2011-2015, focusing on sanitation, the poor and the effectiveness of the enabling environment.

Since the 2000s, international NGOs in collaboration with mass organisations and local governments have implemented a number of demand-driven sanitation interventions in Vietnam, such as sanitation marketing and CLTS, contributing alternatives to the governmental programs. IDE, which is one of these active actors, has carried out three rural sanitation marketing pilot projects in many provinces, achieving promising results of improving access to sanitation. Details of these sanitation marketing pilot projects are provided in the next chapter.

## 4. Implementing sanitation marketing in Vietnam

### 4.1 The sanitation marketing pilot projects

Since 2003, IDE has carried out three pilot projects on rural sanitation marketing in four provinces: Thanh Hoa, Quang Nam, Quang Tri and Yen Bai (see Figure 4.1).

In these pilot projects, IDE undertook four core activities (Frias and Mukherjee, 2005, Sijbesma et al., 2010), including:

- Assessing the rural sanitation market in project areas: IDE carried out market research on how local people built their toilets and for which reasons, and the reasons why people have no toilet; the types of toilets they wanted and could afford, which types are available and at which prices in those local area; which constraints and opportunities are in the existing market.
- Offering households a range of toilet options at lower prices: based on MOH's hygienic toilet standards and local conditions, IDE modified toilet designs with different material choices to reduce the construction cost of toilets.
- Training local sanitation providers: this activity aims to build the capacity of some selected masons and shopkeepers of each target commune who are interested in building toilets. These masons will be trained on how to build the new toilets and be provided the technical specifications. After completing the training, they will be given endorsement by relevant government health institutions and IDE.
- Training local promoters: IDE trained three promoters in each hamlet, including the representatives from the Women's Union, the hamlet health workers, and the hamlet head. These local promoters mobilize households to build hygienic toilets through hamlet meetings, home visits, and loudspeaker systems and information materials which were prepared and distributed to each commune by IDE.

The four major differences of these pilot projects from the existing sanitation programs in rural areas are (Frias and Mukherjee, 2005, Sijbesma et al., 2010):

- There are no toilet subsidies to households and full capital cost recovery comes from users. Subsidies were smartly used on market development, training and monitoring, and project support services by IDE.



Figure 4.1 - Location of pilot projects

- A range of affordable toilet options are offered to each household who decides what toilet model they want and how to buy it.
- Emphasis on behaviour change targets through the local promoters who mobilize people to have good hygiene practices.
- Diversifying the local service provision by providing training courses to the local suppliers, such as village masons and material shopkeepers.

The details of the three pilot projects carried out by IDE are summarized in Table 4.1 below.

**Table 4.1 – Description of the pilot projects on rural sanitation marketing in Vietnam**

<b>1. Rural Sanitation Marketing project in coastal area (Sijbesma et al., 2010, Frias and Mukherjee, 2005)</b>			
<b>Project's questions</b>	(1) Whether rural households will invest in toilets on their own when a range of low-cost options are accessible from local private suppliers; (2) To what extent promotion campaigns can influence consumers' decisions to change sanitation practices.		
<b>Project duration</b>	2003 – 2006, with 6 months gap in 2005 (3.5 years)		
<b>Project site</b>	30 communes in 6 districts of Thanh Hoa and Quang Nam provinces		
<b>Number of households targeted</b>	54,000	<b>Access to hygienic toilets before the project</b>	16 %
<b>Poverty rate</b>	19 %	<b>Ethnic minority</b>	none
<b>Project's results</b>	<p>- The average cost of the toilet models has decreased steadily compared with pre-pilot cost, although the actual cost is decided based on negotiations between local providers and customers;</p> <p>- Around 2000 people were trained by the project, including district and commune steering committees' members, government officials and authorities, 120 district trainers, 723 village promoters, and 750 local masons and shopkeepers;</p> <p>- During the project duration, households in project areas built or upgraded 15,149 toilets. An average number of toilets were built each year which was 2.5 times the average number of toilets built annually in the pre-project period. Access to hygienic toilets increased to 46% in the project area in 2006.</p>		
<b>2. Rural Sanitation Marketing project in upland area of the Central region (Nghiem, 2010)</b>			
<b>Project's questions</b>	Whether a sanitation marketing approach works in poor ethnic minorities in upland area of the Central region.		
<b>Project duration</b>	2006 – 2009 (3 years)		
<b>Project site</b>	5 communes of Dak Rong district in Quang Tri province		
<b>Number of households targeted</b>	1,479	<b>Access to hygienic toilets before the project</b>	4 %
<b>Poverty rate</b>	67 %	<b>Ethnic minority</b>	70 %
<b>Project's results</b>	<p>- Access to hygienic toilets increased from 4% to 33% after three years of the implementation. 434 households built toilets in which 34% are poor and 41% are ethnic minority households;</p> <p>- The project established a local network of 12 mason teams who built 80% of new toilets during the project duration.</p>		
<b>3. Rural Sanitation Marketing project in upland area of the North (Nghiem, 2010)</b>			
<b>Project's questions</b>	Whether sanitation marketing approach can be replicated by a provincial government agency. In this case, it is Yen Bai province's Centre of Preventive Medicine.		

<b>Project duration</b>	2007 – 2010 (4 years)		
<b>Project site</b>	12 communes of Van Yen district in Yen Bai province		
<b>Number of households targeted</b>	12,000	<b>Access to hygienic toilets before the project</b>	17 %
<b>Poverty rate</b>	32 %	<b>Ethnic minority</b>	56 %
<b>Project's results</b>			
<p>- There were 3,929 households that purchased or upgraded hygienic toilets (equivalent to 28% of the total households in 12 communes) after four years of implementation;</p> <p>- After 4 years of project implementation, 45.5% of households in projected communes improved their hygiene practices (hand-washing and proper toilet use);</p> <p>- A local network of 170 masons has been built to provide sanitation services and other construction services in the project areas;</p> <p>- Yen Bai CPM is capable of implementing by itself the second phase of the project from 2009 to 2010 in 7 communes.</p>			

According to monitoring and evaluation reports and independent studies, summarized in Table 4.1, these pilot projects have proven to be an effective and sustained approach to improve access to sanitation and spending external funds on building capacity and developing sanitation markets (Sijbesma et al., 2010, Frias and Mukherjee, 2005, Nghiem, 2010).

#### **4.2 Piloting the sanitation marketing module for the NTP II program in Quang Tri province**

Thanks to the promising results of sanitation marketing pilot projects, DANIDA has supported IDE in collaboration with Health Environment Management Agency - MOH (HEMA) to undertake a pilot project with the following objectives:

- (i) Examining whether a sanitation marketing approach can be adapted to the framework of NTP II and in the context of the pilot province;
- (ii) Providing technical recommendations and design templates of social marketing for sanitation programs in the broader region.

##### **4.2.1 Selecting the pilot area**

Initially, DANIDA, HEMA and IDE agreed to implement the pilot project in An Giang province from May 2009 in order to scale up the sanitation marketing approach in the Mekong Delta region, which has the second lowest access to hygienic toilets - at 39% - in Vietnam (see Table 3.1).

In addition to the very low sanitation coverage in the region, the selection of the pilot province was based on three primary reasons as follows:

- An Giang is one of nine pilot provinces of the NTP II, therefore, the resources for technical assistance, supervision, and finance are available;
- An Giang Centre of Preventive Medicine, the implementing provincial agency, has agreed to collaborate with IDE to implement the pilot project;
- This province has a promising enabling environment for a sanitation marketing project with high capacity of human resources as well as an existing sanitation market with strong supply networks.

Based on the project objectives, IDE proposed to undertake two major sets of activities as follows:

1. Providing technical assistance to the HEMA – MOH and the provincial CPM to design and implement a sanitation marketing pilot in at least 5 communes of An Giang province;
2. Implementing capacity building to enhance social marketing skills and develop design templates for scaling up a sanitation marketing approach in the Mekong Delta region.

After completing the required formalities of governmental administration, since October 2009 IDE was able to carry out several specific activities of the pilot project in An Giang province, including:

- Conducting meetings, discussion and orientation of the pilot project with the involved agencies;
- Designing technical assistance activities;
- Assessing the rural sanitation market in 5 communes in An Giang province;
- Developing promotion and training materials;

However, in June 2010, An Giang CPM sent an official request to HEMA – MOH for discontinuation of the pilot project in An Giang province for the following reasons:

- Judging the list of the pilot project activities for the year 2010 proposed by IDE, An Giang CPM stated that all of the proposed activities were already being implemented or included in its 2010 plan. Therefore, implementing those activities of the pilot project would cause issues of duplication between the CPM's plan and the pilot project plan which could lead to inefficient use of the NTP II budget for An Giang province.
- Due to the duplication of activities, An Giang CPM may face with difficulties in the financing procedures of the NTP.

For this report, although the discontinuation of the pilot in An Giang province cannot be discussed adequately, due in part to of the word count limit, several major constraints that this event has highlighted are discussed in the next chapter, some institutional, and some social.

#### ***Rationale for selecting Trieu Phong district, Quang Tri province as the pilot area***

Due to the request for discontinuation of An Giang CPM, DANIDA and HEMA agreed with IDE to relocate the pilot project from An Giang province to Quang Tri province. The reasons for selecting Quang Tri province are:

- Quang Tri CPM agreed to collaborate with IDE in piloting sanitation marketing in accordance with a letter of interest. In addition, Quang Tri CPM has already known about IDE's sanitation marketing project in Dak Rong district from 2006 to 2009, therefore, they are more convinced of the promising outcomes of this innovative approach compared with An Giang CPM (see Section 4.1).
- If the pilot project could succeed in Quang Tri province, there would be high potential for scaling up the sanitation marketing approach in other provinces of the Central region.
- Quang Tri CPM has been undertaking the sanitation component of NTP II for the year 2010; therefore, the budget of NTP II is still available for sanitation projects in Quang Tri province.

Trieu Phong district was selected because it is located in the neighbourhood of Dong Ha Town, the province's capital; thus it has good access to the market, while its sanitation coverage is considerably

low. After the discussions between IDE and Quang Tri CPM, using the data of Quang Tri CPM (see Table 4.2 below), five communes were chosen based on the following criteria:

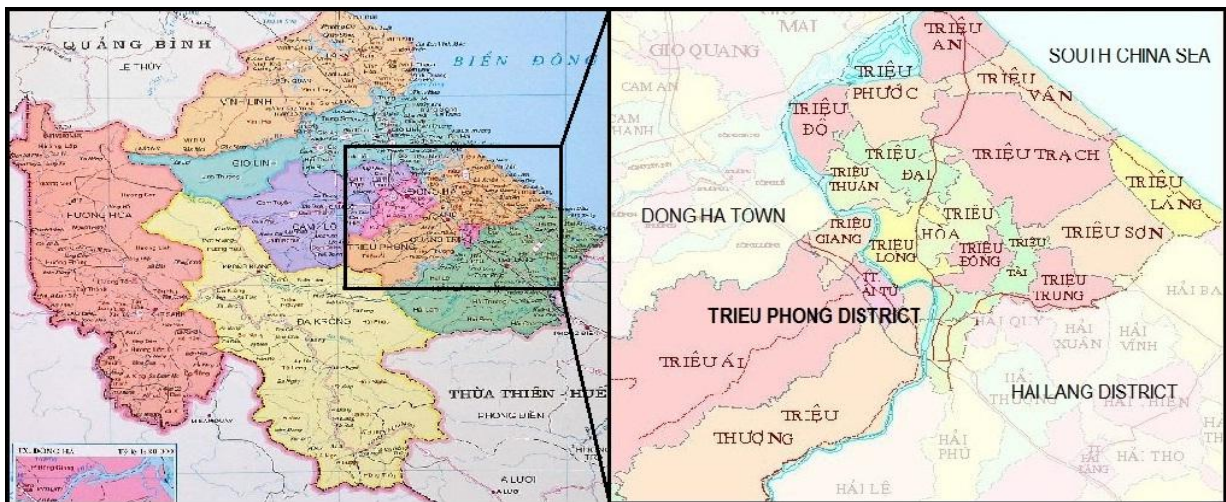
- (i) Communes that have lower sanitation coverage compared to the average sanitation coverage of the district and the province;
- (ii) Communes located in different, typical geological zones of the district, thus there are more possibilities of replicating the pilot model in other parts of the district.

As a result, the five targeted communes are Trieu Thuong, Trieu Do, Trieu Trung, Trieu An and Trieu Lang (see Figure 4.2).

**4.2.2 Context of the pilot area – Trieu Phong District**

**Socio-Economic Context <sup>4</sup>**

Trieu Phong is one of the most densely populated districts in Quang Tri province with the population of 108,275 people and a total of 22,777 households. The district achieves the annual economic growth rate at 10.3%, the average income per capita of 10.2 million VND (510 USD) in 2010. Its economic structure consists of agriculture-forestry-fishery of 53.5%, industry-construction of 19.6%, trading-services of 27%. Due to the high agriculture production, the district is also well known as the ‘granary’ of Quang Tri province. Despite the steady economic growth, the poverty rate of Trieu Phong district is 22% of the total population by the end of 2010.



Source: Quang Tri province portal website ([www.quangtri.gov.vn](http://www.quangtri.gov.vn))

**Figure 4.2 - Map of Trieu Phong district of Quang Tri province**

In Trieu Phong district, there are no ethnic minority people. Secondary education is universalized in all villages of the district<sup>5</sup>. In most households, the heads are often men who get higher social status and are more literate than women (Phan, 2008). Although women take responsibility for a variety of tasks, including sanitation and waste collection in households and villages, they are often underrepresented in decision-making roles (ibid.).

<sup>4</sup> Source: Trieu Phong district portal website ([www.trieuphong.quangtri.gov.vn](http://www.trieuphong.quangtri.gov.vn)), viewed on 2<sup>nd</sup> May 2011

<sup>5</sup> Source: Department of Education and Training of Trieu Phong district’s website (<http://www.pgdtrieuphong.edu.vn>), viewed on 2<sup>nd</sup> May 2011

### **Environmental context**

Trieu Phong district is in the tropical monsoon region in which there are two distinct seasons: a cold rainy season and a hot dry season. The average rainfall is from 2500 to 2700 mm per year, but this is distributed very unevenly. About 68-70% of the annual rainfall is concentrated in the rainy season from September to November, causing wet-season flooding and dry-season scarcity every year (Nguyen et al., 2009).

### **Access to water**

According to the statistics of Trieu Phong district, the percentage of households with access to water at houses is about 79%, mainly from bore wells and dug wells.

In the rainy season, local people prefer rainwater to groundwater because of its taste and smell, which results from the iron content and salinity levels. However, the percentage of households using rainwater is still low due to the uneven rainfall.

### **Access to sanitation**

According to Quang Tri CPM's report in December 2010, the average percentage of sanitation coverage in the five project communes is 33% of the total households, which is considerably lower than the sanitation coverage of the district and province at 46% and 55% respectively (see Table 4.2).

**Table 4.2 – The percentage of sanitation coverage in five project communes of Trieu Phong district**

No	Communes	No of hamlets	No of households	Population	% of poor households	% of households having sanitary toilets (1)	% of households having sanitary toilets (2)
1	Trieu Thuong	9	1,574	6,565	19	37	23.6
2	Trieu Do	9	1,339	6,355	16	30	33.4
3	Trieu Trung	8	1,204	5,724	18	31	48.5
4	Trieu An	5	1,450	6,792	23	31	36.6
5	Trieu Lang	6	1,144	5,281	26	37	17.9
<b>Total of five communes</b>		<b>37</b>	<b>6,711</b>	<b>30,717</b>	<b>20</b>	<b>33</b>	<b>31.98</b>
<b>Total of Trieu Phong district</b>		<b>145</b>	<b>22,777</b>	<b>108,275</b>	<b>22</b>	<b>46</b>	<b>n/a</b>
<b>Total of Quang Tri province</b>			<b>149,463</b>	<b>600,000</b>	<b>n/a</b>	<b>55</b>	<b>n/a</b>

(1) Data from Quang Tri province's Centre of Preventive Medicine as reported in December 2010.

(2) Data from IDE's investigation as reported in March 2011.

In March 2011, IDE, in cooperation with commune health workers, carried out an investigation into the sanitation coverage in five targeted communes. The outputs demonstrate significant differences from the CPM's figures, in which three communes have higher percentages of sanitary toilets and two other communes have much lower ones. In considering the unreliability of data concerning the sanitation coverage at national level, as mentioned in Section 3.2, this problem seems, according to the data reported here, to originate from the lowest level.

### 4.2.3 The timeline of pilot project activities

As mentioned in Section 4.1, the pilot project implementers have carried out the four core project activities which are divided into two stages: (1) project preparation; and (2) project implementation.

Figure 4.3 below shows the timeline of project activities in Trieu Phong district. The project proposal was approved by DANIDA and HEMA in July 2010, and then it took several months to complete the required formalities of administration within the NTP II program. As a result, the project activities have only been carried out since receiving the official agreement of cooperation from Quang Tri CPM, since November 2010. Due to time constraints, situational assessments were done from October 2010. However, in considering the required workload as well as human resources, IDE asked DANIDA for a five month extension, to ensure the achievement of the objectives of the pilot.

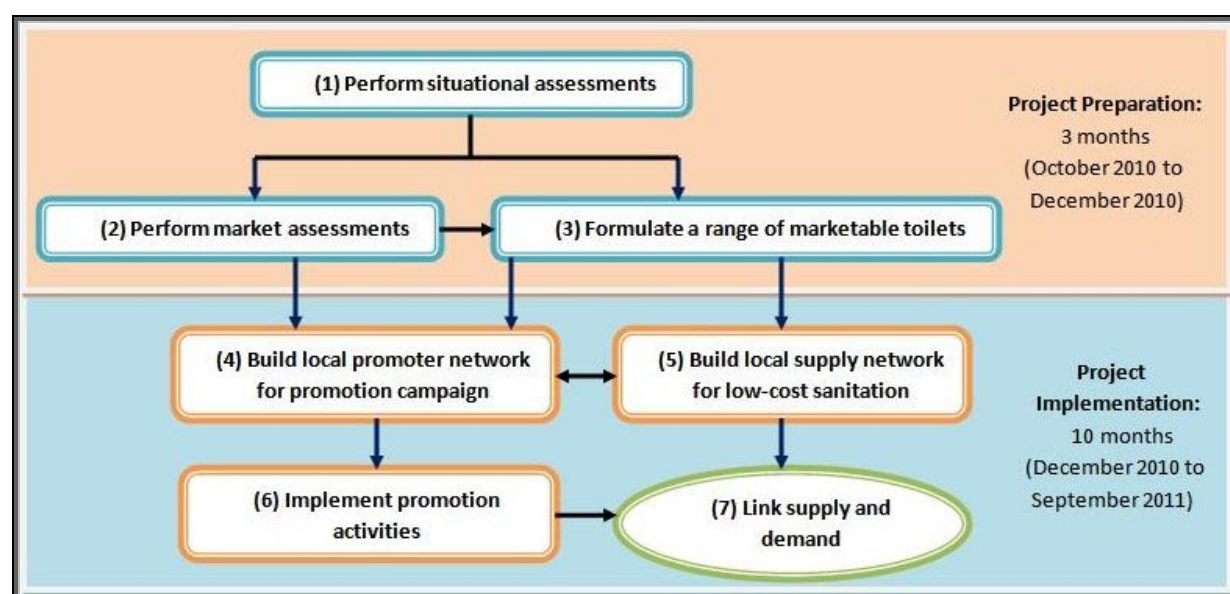


Figure 4.3 – Timeline of the pilot project activities in Trieu Phong district (adapted from Frias and Mukherjee (2005))

### 4.2.4 Design of research on the sanitation market

The qualitative research on the sanitation market was carried out by a team which consists of two independent consultants and IDE staff to answer the following primary questions:

- How local people built their family toilets and for which reasons;
- Why households have no toilets;
- Which types of toilets they want and could afford;
- In local areas, which types are available and at which prices;
- What constraints and opportunities are in the existing market.

The research aims to reveal the perspectives, experiences and insights of local people and various stakeholders in the target areas based on findings related to the demand side, the supply side and the enabling environment.

#### **Methodology**

In this research, data were collected by qualitative methods. A field trip was conducted by the research team in two of the five communes, including the following activities:



- four focus household group discussions: including two groups of households with sanitary toilets, one group of households with unsanitary toilets and one group of households without toilet;
- four in-depth interviews with households with sanitary toilets, households with unsanitary toilets and households without toilet;
- four in-depth interviews with trained masons of the pilot project and local material shop owners;
- two meetings with groups of hamlet promoters, including: head of hamlet, representative of hamlet Women's Union, and hamlet health worker in each commune;
- At commune level, two meetings with representatives of commune's People's Committee, Women's Union, agriculture officers, Vietnamese Fatherland Front, Health stations;
- At district level, in-depth interviews with representatives of Centre of Medicine; Agriculture Department; People's Committee; Women's Union; Branch of Vietnam Bank for Social Policies;
- At province level, one meeting with leaders of Quang Tri CPM.

A semi-structured list of suggested questions for the focus group discussions, meetings and interviews was compiled in Vietnamese (see Annex 6) and was revised by research team members. These questions aimed to help the facilitators to carry out data gathering efficiently, thus the process was delivered flexibly.

During the field trip, many informal discussions and conversations were held with IDE senior officers and the director of Dak Rong district's Centre of Medicine, the implementing agency of the sanitation marketing project in Dak Rong district (see Table 4.1), to reveal their perspectives on sanitation marketing and experiences in dealing with challenges.

### **Limitations**

Although the importance of accurate and up-to-date data obtained by the research on the sanitation market is clearly recognized, several limitations were present throughout the research.

#### ***Lack of sanitation expertise***

Two independent consultants of the team have worked on a wide range of development interventions for many years and directly participated in evaluating several rural sanitation projects, including the sanitation marketing project in Dak Rong district in 2009. However, they have not specialized in sanitation, thus there was some confusion when they carried out the research.

During the research, it was found that the presence of IDE senior officers was helpful for the research team to gain insights and address the limitations of the research themselves.

#### ***Selection of study sites***

The study sites, Trieu Do and Trieu An commune, were selected based on ease of access by Trieu Phong district's Centre of Medicine.

#### ***Interviewee selection bias***

In the study sites, the interviewees of households were chosen based on their present availability through networking connections within the community, herein referred to as the hamlet health worker network. Hence there was potential selection bias of the networking connections.

***Condition of data gathering***

Evidently, the household interviews and focus group discussions should be conducted with interviewees only, to ensure that their responses were not swayed by others. However, one focus group discussion was held in the commune health station with the presence of commune and hamlet health workers. In most household interviews, hamlet health workers were also present.

***Time constraints***

A series of time constraints affected this research. As mentioned in Section 4.2.1, the pilot project was relocated from An Giang province to Quang Tri province while the project duration was not extended until recent months. Consequently, the field trip was conducted for only five days, and the amount of time spent in each site was brief. Although Chambers (1983) has emphasised the need for time to overcome the spatial biases and to obtain insights into rural communities, an extended stay within the communities was not logistically feasible.

***Budgetary constraints***

Before relocating the pilot project to Quang Tri province, a part of the project budget was spent on project activities in An Giang province. To deal with the budget issue, IDE had to tighten expenditures on most project activities in the new target province, including this market research.

**4.3 Findings from the market research in Trieu Phong district**

This section provides a summary of findings obtained through the market research.

***4.3.1 The situation of the demand side******Site background and sanitation coverage***

Trieu An is a coastal commune with 5 hamlets (or villages), consisting of 1,528 households (see Figure 4.2). The main livelihoods of local people are agriculture production (rice planting) and fishing. Some households also do small business in village markets. In the commune, there are 36.6% of the total households having sanitary toilets (see Table 4.2). Most of the toilets are septic tank toilets which were built in combination with houses. Due to the uneven population density among hamlets, the rates of sanitation coverage are various among hamlets.

Due to the lack of discreet places for open defecation, the higher densities of population some hamlets have, the higher the rate of households having toilets. In other hamlets, especially coastal hamlets, most households own plenty of land, and so many of them are still defecating in open areas, such as in the coastal woodland, sand-dunes, bushes and uncultivated lands.

Trieu Do commune is located in the plain area where the conditions are favourable for planting rice and developing animal husbandry (see Figure 4.2). Due to the high population density, there are 56% of total households with toilets, which is considerably higher than Trieu An commune. However, the percentage of sanitary toilets is just about 33% of total households (see Table 4.2). There are two common types of toilets, including 300 septic tank toilets and 429 double-vault composting toilets. However, commune health officers reported that only 100 double-vault composting toilets are sanitary according to MOH's standard. The other unsanitary toilets are traditional pit toilets which are often made by digging simple holes with temporary shelters in the garden. The people without toilets often defecate in the fields or collect their waste for feeding household animals, such as dogs and pigs.

### **Existing toilet technologies and usage**

There are two types of toilets used by most of local people in the two communes studied.

- (1) Septic tank toilets are often built of local cement bricks in combination with bathroom and houses for convenience. The sizes of septic tanks are often 1.5 metre wide, 2.0 – 2.5 metre long, and 1.0 -1.5 metre deep and the tank is divided into two or three vaults at the request of the family (see Figure 4.4). According to MOH's standard, the three-vault septic tank toilet is one of the accepted 'sanitary' toilets (see Annex 4). The two-vault one is not in the MOH's list of sanitary toilets and is defined as a semi-septic tank toilet by IDE.



**Figure 4.4 - Septic tank in the garden in Trieu Do commune**

Since access to water for flushing toilets is not an issue in these two communes, both the discussions and interviews indicate that most households prefer septic tank toilets to the other types of toilets. The reasons for this preference are because they think that septic tank toilets are convenient and cannot be affected by regular flooding in local areas.

Regarding operation and maintenance, the households using septic tank toilets acknowledge that they should not throw thick papers or discharge grey water into the septic tanks to prevent them from blockage and from the septic tank 'overflowing'. When being asked about the pit emptying and repairing services, they do not know anyone who may provide those services in the local area. Even the masons who built those toilets said to the households that they cannot repair or empty the septic tank toilets. To deal with the problems, the households used to hire masons to break the old septic tanks and build the new ones which cost them a lot of money. This issue makes local people think that they should build a very big septic tank in the first place to able to use it for a long time. Since there are no services for emptying or transport and treatment of waste, local people often dispose of sludge from the septic tank directly to the garden, ponds and channels.

Another issue is that all the existing septic tank toilets have neither seepage pits nor absorption trench for disposing of the liquid effluent according to MOH's standard (see Annex 4) and as it essential for a functioning septic tank. This effluent is commonly discharged into or across the ground or into a fish pond since local people think that it is not harmful. This demonstrates a fundamental lack of understanding of the function of a septic tank, both by householders and by local constructors.

- (2) Double-vault composting toilets are built by local cement bricks in the corners of household gardens. The lower part consists of two storage vaults which are 0.6 – 0.7 metre high, 0.6 – 0.9 metre wide, and 1.2 – 1.5 metre long (see Figure 4.5). The upper part is often built by bricks or covered by cement tiles, bamboos, timbers or palm leaves. Based on observation, most of the double-vault composting toilets were built in a simple design without a urine-diversion system. Few households still maintain the storage vaults well with tight covers while most households have left the vaults open or with cracked covers (see Figure 4.5).



**Figure 4.5 - Double-vault composting toilet in Trieu Do commune**

Double-vault composting toilets were highly advocated by local authorities in the 1990s and the early 2000s because the construction costs are very affordable, at about 500,000 VND (25 USD) at the time five years ago, and the two study communes have plenty of agricultural land available for disposing of the compost. However, due to poor operation and maintenance, most of these toilets were downgraded quickly and have become a source of pollution in residential areas. Excreta are often taken out of the compost vault after less than six months, which is the minimum proper composting time. Local people simply covered excreta with ashes, and then they used it as fertilizer or disposed of it at the edges of the fields. Some local households just dispose of the excreta from the full vault into a hole in the garden, and then cover the hole with soil, rice straw, rice ash or dry leaves to avoid flies. When the excreta became dry, after a few weeks or months depending on the seasons, they burned it with other solid wastes. All burned ingredients would be used as fertilizer.

#### ***Households' perspectives on sanitary toilets***

In focus group discussions, most of the local people acknowledge the benefits of sanitary toilets, consisting of:

- Convenience, especially for the elders and children;
- Cleanliness - no pollution affecting the surrounding environment;
- Good for health;
- No bad smell.

Regarding health benefits, people think that defecating in open areas pollutes the environment, so it would be harmful to the health. However, they did not mention links between poor hygiene and sanitation practices and the transmission of diseases. They think that common diseases affecting local people are caused by unclean water sources and other harmful substances in the surroundings rather than the lack of sanitary toilets. However, commune health station officers confirmed that eye diseases and diarrhoea are the most common diseases in these local areas.

In Trieu An commune, the focus group of households without toilets mentioned the disadvantages of having no toilet, including:

- Having to go far for defecating; in some hamlets, people have to ride motorbikes to defecation sites which are several hundreds of metres away from their houses;
- Inconvenience, especially in rainy and cold days or during night time;
- It is unsafe for 6 – 13 year old girls, thus the adults have to take them to the defecation sites;
- With children under 5 years old, their feces without treatment are disposed of into the garden causing pollution;
- Environmental pollution.

In addition, although some households without toilets indicate the ‘urgent’ need to build sanitary toilets for their families, some other people think that defecating in open areas is comfortable and does not matter.

In Trieu Do commune, the focus group of households with unsanitary toilets also described the disadvantages of having unsanitary toilets, including:

- Feces overflowing to the surroundings during rainy or flooded days;
- Inconvenience for the elderly;
- Bad smells and flies;
- Feces must be disposed of regularly: some households do not use compost for fertilizer, thus they have to dispose of it into holes in the garden and burn it, creating bad smells.

The results of focus group discussions in Trieu Do commune are quite different from the individual interviews with two households using unsanitary toilets, one with a traditional pit toilet and one with an unsanitary double-vault composting toilet. Both of them feel comfortable with their toilets and they think that their toilets do not cause any inconvenience or pollution to the surroundings. This phenomenon of apparently different responses may be caused by peer-pressure and the expectation for toilet subsidies during focus group discussions.

Regarding appropriate types of toilets, most households indicated that they do not want to build double-vault composting toilets because of the difficulties of waste disposal and treatment. In recent years, most local people prefer artificial fertilizer to the compost taken from the toilets due to the higher productivity and convenience. Although the matter of ‘disgust’ was not directly indicated by local people, it was clearly existent when they believe that touching human excreta, even the composted waste from the toilets, is not hygienic and harmful to health.

In Trieu An commune, local people think that ‘pour flush’ toilets are not suitable for coastal sandy areas because they would pollute the groundwater sources; however they are not aware of the hazard of effluent from septic tanks.

Due to the high level of groundwater and regular flooding in local areas, ventilated improved pit toilets have never been advocated or introduced to local people by either local authorities or health workers.

For these reasons, most local households believe that septic tank toilets are the best technology and much more hygienic than the other types of toilets, including double-vault composting and pour flush toilets. Moreover, they want to build a septic tank toilet in combination with bathroom and water supply facilities. This phenomenon raises concerns about the unsafe disposal of the liquid

effluent and sludge from septic tanks into the environment since both cause serious health hazards similar to open defecation.

### ***The myth of toilet construction costs***

In two communes, local people and commune authorities estimated the construction costs of these types of toilet from 8 – 15 millions VND (400-750 USD) depending on specific designs and materials. At the price of 15 million VND, a toilet can be built in combination with a bathroom and water supply facilities.

*... Masons here only know one kind of toilet with septic tanks and learn how to build it when they work in Dong Ha town. People who want to build toilets always ask them. Some masons want to get more income which is estimated based on the total construction costs, thus they keep convincing people to build bigger structures that combine both toilet and bathroom and often cost about 10 – 15 millions VND. Therefore, many households think that they will never have enough money to build such facilities for their families...*

*Focus group discussions of households with unsanitary toilets in Trieu Do commune*

### ***The main reasons why people do not build toilets***

First of all, local people indicate the reason for having no toilets is that they do not have enough money to build one. Though the poverty rates<sup>6</sup> are not high in Trieu An and Trieu Do communes with 25% and 18% respectively, the investment of 8 – 15 million VND (400-750 USD) for a toilet is still a big amount of money for many local households in their opinions. On the other hand, some local authority staff suggested that a lack of money is not the actual reason why local people do not build toilets, as many households own significant assets in the two study communes (see Table 4.3).

**Table 4.3 – Estimated rates of households owning real assets in two communes**

Commune	Number of households	% of poor households	% of households with sanitary toilets <sup>7</sup>	% of households with solid houses	% of households with motorbikes	% of households with TV
Trieu An	1450	25	36.6	70	80	100
Trieu Do	1339	18	33.4	70	90	98

*Source: Conversations with commune authorities and local people*

Secondly, local households lack information about types of affordable toilets, and they do not know how to build these toilets and where they can find providers of such low-cost construction services.

In addition, among the group of non-poor households, some of them procrastinate about investing in building toilets because they want to wait for financial assistance from development projects of NGOs or the GoVN, hoping that they would then have enough money to build septic tank toilets.

*...In our neighbouring communes, people received subsidies from a project for all households. Poor households can receive 1.5 million VND (75 USD). And non-poor households can receive 800,000 VND (40 USD) and borrow 1 million VND (50 USD) with no interest for one year. If we*

<sup>6</sup> Since 1<sup>st</sup> January 2011, the Ministry of Labor, Invalids and Social Affairs (MOLISA) issued the new poverty line which identifies rural poor as those earning less than 400.000 VND per capita per month.

<sup>7</sup> Source: Data of IDE's report in March 2011

*are subsidized partly to build toilets, we will build good toilets soon, following the designs, models and progress as prescribed by the project...*

*Focus group discussions of households with unsanitary toilets in Trieu Do commune*

Some other people feel comfortable with using temporary toilets or defecating in open areas, thus they have no need to build toilets.

#### **Available information channels**

In the two study communes, when households decide to build toilets, they used to consult neighbours, villagers and village masons for information about the types of toilets, construction techniques, costs and necessary labour. It is found that the social networks are quite strong in these local areas; hence the most common information channel is probably 'word-of-mouth'.

Many of the households accessed information about how to build toilets through local masons, who gained some experience of building toilets from seasonal construction works in nearby towns. There is no technical guidance available on building rural household toilets in the study areas.

In addition to these informal channels, local people also have some information about hygiene and health from health workers, hamlet meetings, Women's Union meetings, NGOs' communication campaigns, TV and radio. However, information about sanitary toilets used to be imparted as only a minor part of communication campaigns which aim to raise public awareness and promote hygiene practices. As a result, local people used to be given insufficient details about building toilets by those formal channels.

#### **Financial aspect of local households**

According to the project objectives, the research is not targeted specially at poor households; however, many poor households participated in the group discussions. In Trieu An commune, most of the participants in the group discussion of households without toilets are poor people. When being asked about investing in toilets, they think that they have no money for building toilets because all of their family income must be spent on basic expenditures, such as children's education, food, health care etc. Regarding access to bank credits, they are afraid that they would not be able to pay back loans due to their very low income.

In Trieu Do commune, many discussion participants are not poor, thus many of them asserted that if the project provided part subsidies to build toilets (50% of construction costs or 1 – 2 million VND (50 – 100 USD) per household), they could pay the remaining to build septic tank toilets.

Local households often take investments for building toilets from four main sources: (i) family savings; (ii) selling agricultural products; (iii) credit from the Vietnam Bank for Social Policies; (iv) loans from friends and relatives. Among these financial sources, many interviewees suggested that agricultural incomes are the most important source of funds for most households; thus harvest seasons are favourable times for the project to stimulate demand through promotion activities.

#### **4.3.2 The situation of the supply side**

##### **Offering an affordable option of septic tank toilets**

To formulate the marketable toilet options for the target areas, IDE undertook a sequence of the following activities:

(1) Gathering information about the types, costs, designs of existing toilet technologies;

- (2) Comparing the existing technologies in the target area with various toilet technologies promoted by IDE in other provinces with similar contexts, and then selecting appropriate options of toilets according to the MOH's quality standards;
- (3) Assessing the advantages of the selected technologies according to three criteria: lower costs, long lifespan, and good design (no smells, clean etc.) during the trainings activities with local masons and focus group discussions with local households;
- (4) Adjusting the design of selected toilets based on consultation with local masons and households.

This process resulted in an innovative toilet model, comprising a concrete-ring septic tank, and five sets of concrete-ring steel moulds as can be seen in Figures 4.6 below. These five sets of concrete ring moulds were subsidized and delivered to five target communes by the pilot project. The innovative model of septic tank toilets consists of two concrete rings with 1.2 metre diameter and 1.2 – 1.4 metre deep; the second ring would be divided into two vaults by a concrete partition panel. In considering the MOH's sanitary toilet standards (see Annex 4), the IDE septic tank model has three vaults to ensure the quality of the liquid effluent that subsequently flows into a drainage manhole about (0.3mx0.4m) before being discharged into the environment.



**Figure 4.6 – Steel moulds of concrete rings and demonstration septic tanks in Trieu An commune**

This innovative model of septic tank toilet has the following advantages:

- Convenience for building and installing;
- Time-saving: the construction time is estimated to be about three days in the dry season.
- Lower construction costs: compared to existing septic tank toilets made of concrete bricks (see Section 4.3.1), the underground part of this model (two concrete rings, the drain manhole, and connection pipes) costs about 3.5 million VND (175 USD) which is much lower than the cost of conventional one at approximately 5.0 million VND (250 USD).
- Reusable concrete rings.

On the other hand, the specification of IDE's toilet model shows that the drain manhole does not fulfil the technical function as well as construction requirements of a seepage pit or absorption trench mentioned in the MOH's standard. In addition, this pilot project has no strategies for developing services for emptying, treatment, and reuse or safe disposal of the sludge collected in the septic tanks. These two issues raise concerns about the unsafe disposal of the effluent and the sludge into the environment.



### ***The selection of local masons for marketing sanitation***

Before training the local masons, IDE cooperated with commune health officers to select village masons in each commune based on the following criteria:

- The masons are local residents and there is at least one mason per three villages from different mason teams;
- They are not highly qualified masons, thus they might pay more attention to building toilets than other construction services;
- They are seeking career progression and are willing to help the poor.

As a result, most selected masons are part-time masons and some of them are also hamlet health workers.

### ***The technical capacity of local masons***

The research did not aim to count the number of masons in the two study communes; however, the results of the group discussions showed that the mason force is quite abundant in the target areas, including both highly-skilled and part-time masons.

Before the pilot project, there was no mason who was trained as well as given technical guidance concerning building toilets; thereby, they built household toilets in their villages based on their experience when participating in construction works in urban areas.

*...I have worked as a mason for years in this commune; I built several tens of toilets in combination with houses. I was not trained about techniques and I do not understand the principle of septic tank toilets, only learn by doing and imitate the other masons. After participating in the training about building sanitary toilets held by IDE, I was given documents, technical drawings, thus I can understand the standards and methods of good constructions. I will show households, who want to build toilets, these technical drawings, and then they will trust the building quality much more...*

*Interview with trained masons in Trieu An commune*

As mentioned in Section 4.3.1, there is a big gap in maintenance and repair services in the study area. Most of the local masons said that they cannot repair or empty the septic tank toilets, thus the households had to manage and repair the toilets by themselves.

According to interviews with trained masons, there is considerable difference in the labour cost between the two study communes, leading to differences in the total construction costs of toilets among target communes.

### ***The potentials of local masons for participating in the pilot sanitation marketing project***

In both study communes, there is no precedent for masons promoting and mobilizing households to build toilets. When households have demands, they often contact masons and negotiate the type of toilet, costs and time (see Section 4.3.1).

Due to the results of the interviews, all trained masons demonstrate their enthusiasm to participate in mobilizing households to build toilets for two main reasons. Because they believe that this would help them to have more work and gain income, and then these works could contribute to a better environment for their community.

However, the promotion methods indicated by the trained masons are quite simple, such as visiting each household in their villages. It is necessary that the project should assist the masons with promotion materials as well as marketing strategies.

In terms of construction time and labour cost, masons also said that they are very flexible and are willing to provide the services to poor households who want to contribute unskilled labour and pay for their labour cost in instalments.

#### ***The capacity of local material suppliers***

In both of the two study communes, there are several material shops with sufficient construction materials. These shops also have trucks to transport the materials to construction sites. All interviewed shop owners think that they can allow buyers some credit for materials at a maximum 20-30% of the total costs for less than three months, depending on each buyer and specific amounts of materials.

Toilet equipments are not available at these material shops in the communes. If households want to buy such equipments, the shop keepers will order the material from shops in the district town and deliver to households.

#### ***4.3.3 Assessment of enabling environment and perspectives of local implementing agencies***

##### ***The implementation of the household sanitation component within the NTP II in Quang Tri province***

As mentioned in Section 3.2, the National Target Program for Rural Water Supply and Sanitation (NTP) phase II was carried out from 2006 to 2010 in all provinces. At province level, the prime responsible agency is the Department of Agriculture and Rural Development (DARD) under the Province People's Committee (PPC). In 2010, Quang Tri province's CPM was given about 600 million VND (30,000 USD) to implement sanitation components of the NTP program, including approximately 50 million VND (2,500 USD) for an IEC program. This budget was spent on a range of the following activities:

- Building public toilets for commune health stations;
- Training about sanitation and hygiene for district health workers;
- Subsidizing building sanitary toilets with 1 million VND (50 USD) for poor households and 800,000 VND (40 USD) for other households in two communes of Cam Lo district;
- Carrying out communication and developing communication materials for the IEC program.

Due to the changes in institutional arrangements, Quang Tri CPM only participated in implementing the sanitation component of the NTP II program from the beginning of 2010; thus they have already faced many difficulties and much confusion.

Although the National Strategy for RWSS attempts to adapt a demand-driven approach with participatory methods to the NTP II implementation (see Section 3.2), Quang Tri CPM has been implementing the sanitation component of the NTP II based on a supply-driven approach with limited public consultation due to many constraints, including the lack of coordination, out-of-date financing regulations, and limited implementation capacity.

### Coordination

Although Quang Tri PPC has established a Province Steering Committee to coordinate the implementation of NTP II, the results of interviews with officers of Quang Tri CPM showed that the coordination among involved agencies of the NTP II is very limited in Quang Tri province. For instance, the provincial CERWASS under the DARD, the previous implementing agency, has not handed over the information about the implementation of the NTP programs to Quang Tri CPM. As a result, Quang Tri CPM has no information about the previous implementation methods, funding allocation, monitoring and evaluation and so on.

Similarly, at district level, the leaders and officers of the district People's Committee, Centre of Medicine, and Department of Agriculture have never undertaken any coordination among sanitation sector actors. In addition, they have been given very limited information about the implementation of the NTP II program, as well as about other sanitation projects. The District Centre of Medicine (DCM) was not engaged and consulted in any sanitation projects carried out by the District Women's Union or INGOs (UN-Habitat, World Vision) which are the most active actors in the sanitation sector in the district.

### Financial arrangements and budget allocation within the NTP II program

The NTP budget, like other state budgets, is divided into two broad kinds of funds: the development investment fund and the operational fund. Spending these funds for the NTP II implementation is regulated under the Circular 80/2007/TTLT-BTC-BNN and its revision Circular 48/2008/TTLT-BTC-BNN (see Table 4.4 below). The MARD in collaboration with the MOF compiled these circulars to guide the use of the state budget for the NTP II program. But Provincial People's Committees (PPCs) are at liberty to decide on the allocation of the budget for the implementation activities under these regulations.

Table 4.4 - Regulations of spending state budget for the RWSS NTP phase II (Circular No. 80/2007/TTLT-BTC-BNN and its revision No. 48/2008/TTLT-BTC-BNN)	
A. Expenditure purposes from operational fund	B. Expenditure purposes from development investment fund
<ol style="list-style-type: none"> <li>1. Communication and social mobilisation: the costs of putting messages in the local and national media, printing materials, producing films or other communication forms;</li> <li>2. Professional training: the costs of trainers, training room and other associated costs;</li> <li>3. Application of proven technological and scientific solutions in water supply and sanitation;</li> <li>4. NTP monitoring and evaluation, including water testing;</li> <li>5. <b>Building models of sanitary toilets for households;</b></li> <li>6. Building sanitary toilets for schools, clinics and markets in rural areas that don't have toilets. This is applicable to the most disadvantaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Developing master plans for rural water supply and sanitation at the national, provincial and district levels;</li> <li>2. <b>Building sanitary toilets, including those for schools, health stations, markets, commune People's Committee buildings and other rural public places;</b></li> <li>3. Building, upgrading, expanding water supply facilities, including those for schools, health stations, markets and commune People's Committee buildings, border guard stations, border population clusters, and other rural public places;</li> <li>4. Building models for waste treatment in handicraft villages;</li> </ol>

**Table 4.4 - Regulations of spending state budget for the RWSS NTP phase II  
(Circular No. 80/2007/TTLT-BTC-BNN and its revision No. 48/2008/TTLT-BTC-BNN)**

communes only; 7. Building models for animal waste treatment; 8. Support O&M of centralised water schemes; 9. Costs associated with international consultants working with ministries and provinces in the NTP; 10. Contingency expenditures, subject to approval by competent authorities.	5. Application and replication of proven technological and scientific solutions in water supply and sanitation.
<b>A1. Cost-norms for building sanitary toilet models from operational fund</b>	
1. Maximum subsidy for each commune to apply the toilet models will be 200 million VND (10,000 USD), including selecting project site, data gathering, technical support, communication and social mobilization costs, project inspection and so on; but partial subsidy for construction materials (steel, cement, etc) for the people involving in developing the model must be at least 80% of the expenditure of the toilet model in a commune;	
2. The subsidy for each household from the state budget cannot be higher than 75% of the total construction cost of a toilet, but the maximum subsidy will be 1,000,000 VND (50 USD) for poor households or households living in disadvantaged communes to build models of sanitary toilets; and 800,000 VND (40 USD) for households in other areas.	
<b>B1. Cost-norms for sanitary toilets from development investment fund</b>	
1. For household sanitary toilets: Proportion and amount of subsidy is defined as item A1.2 above.	

Evidently, these circulars show that the financing of the NTP II program is driven toward hardware subsidies. The expenditure for software activities or IEC programs from the operational fund must not exceed 20% of the total budget. In addition, it is indicated that budget for developing toilet models and IEC program can be only taken from the operational fund of each province which is allocated for much lower expenditure compared to the development investment fund (see Table 4.5).

**Table 4.5 - Total budget for the NTP II at national level by years <sup>8</sup>**

Year	Total budget (billion VND)	% increase compared to previous year	Divided into	
			Budget for operation (billion VND)	Budget for development investments (billion VND)
2007	430	-	30	400
2008	622	45%	66	556
2009	935	50%	97	838
2010	1098.5	17%	128.5	970
<b>Total</b>	<b>3085.5</b>		<b>321.5</b>	<b>2764</b>

<sup>8</sup> Source: MoF website [http://www.mof.gov.vn/portal/page/portal/mof\\_vn/1351583/2126549/2117088](http://www.mof.gov.vn/portal/page/portal/mof_vn/1351583/2126549/2117088), viewed on 20<sup>th</sup> May 2011

### ***Perspectives of local implementing agencies on implementing sanitation marketing***

During the meeting with the research team, officers and leaders of Quang Tri CPM showed their beliefs in sanitation marketing as an innovative approach which could help to address sanitation issues in Quang Tri province.

*...We understand that IDE's strategy mostly focuses on marketing which aims to mobilize and to communicate, but not to provide subsidies by money or construction materials like the other projects. The biggest advantage of the project is the low-cost technology to build sanitary toilets. If I knew this approach before, I would apply this for other projects implemented by the CPM in order to reduce the cost. With the low cost toilet model in combination with good communication and mobilization, I believe that the percentage of households with sanitary toilets will increase significantly...*

*Interview with the leaders of Quang Tri CPM*

The leaders of Quang Tri CPM also suggested that the health worker network has now been expanded to reach each hamlet, which becomes one of the advantages of implementing the pilot project. However, IDE has also been asked to help the CPM to develop communication materials and mobilization skills for health workers.

On the other hand, the implementing officers of Quang Tri CPM are concerned about difficulties with implementing this innovative approach within the NTP II framework. First, sanitation marketing is new to Quang Tri CPM, although they acknowledge the promising results of implementing this approach in Dak Rong district three years ago. CPM staff think that they basically understand what sanitation marketing is, but they are not sure about how to carry out this approach in practice. Second, because this pilot project aims to integrate a sanitation marketing model into the NTP II, there is considerable confusion about the plan of activities, financial arrangements and budget allocation.

At district level, the interviewed health officers did not fully understand the differences between this approach and other sanitation programs. Some of them think that this pilot project would carry out similar activities to other projects, including training, subsidizing, communicating and so on.

*...I like most that this project subsidized the sets of concrete ring moulds for five communes and trained local masons about the construction techniques. That way means that, for long-term, each commune has a set of moulds to serve people to build toilets, and masons have skills...*

*Interview with leaders of District Centre of Medicine*

However, the district health officers also expressed their willingness to coordinate with IDE to implement the pilot project despite many challenges.

#### **4.4 Summary**

The main findings relating to the demand side demonstrate that the demands for building sanitary toilets are evidently existent in the study communes, based on the following benefits perceived by local households:

- Convenience;
- Cleanliness, no pollution in the surrounding environment;
- Safety for the elders, children and teenage girls;

- Good for health;
- No bad smell and flies.

In two communes, the most desirable option for a sanitary toilet is one based on a septic tank. However, there are several reasons why local households have not invested in building toilets, as follows:

- Poor sanitation habits and community acceptance of them;
- Building a toilet is not one of their household spending priorities;
- Lack of money;
- Lack of information about affordable toilet options and reliable toilet suppliers;
- Negative expectations of toilet subsidies.

Regarding the supply side, an innovative toilet model, comprising a concrete-ring septic tank, was formulated by IDE in consultation with local masons and households. This toilet model has a number of advantages. However, there is only a drainage manhole after the septic tank instead of a seepage pit or absorption trench mentioned in the MOH's standard, raising the concern about unsafe disposal of the liquid effluent. Also, the pilot project has no strategies for developing environmental services, including safe disposal of the sludge of the septic tank.

The trained local masons demonstrate their enthusiasm to participate in the pilot project; however, they need to be assisted with promotion materials and marketing strategies.

Regarding the enabling environment, it is found that Quang Tri CPM has been implementing sanitation component under the NTP II based on supply-driven approach with limited public consultation due to main constraints, including the lack of coordination, out-of-date financing regulations, and limited implementation capacity.

The next chapter will discuss these findings further in the broader context of the national sanitation program.

## 5. Barriers to integrating sanitation marketing into a national program

This chapter discusses how far IDE is experiencing barriers to adapting a sanitation marketing approach to the national target programs referred to in Chapters 3 and 4. It uses the same structure as Section 4.3, including discussion of the demand side, supply side and enabling environment.

### 5.1 Complexities of demand constraints

As mentioned in Section 2.2, the benefits of improved sanitation are perceived very differently between households and the state. The findings of the market research in Trieu Phong district pointed out that households are likely to be motivated to build toilets by a mix of motives, including some which are not linked to health benefits, such as convenience and safety. Therefore, to stimulate individual demand for better sanitation, it is essential to replace the out-of-date didactic approaches based on health education with a sanitation promotion approach.

According to Section 4.3.1, there are some doubts about the reasons preventing households from building toilets. The most common reason mentioned by households is the lack of money; however this is denied by the local authorities, based on information about the rates of household ownership of real assets in two study communes (see Table 4.3). The concern is whether possession of these real assets is adequate evidence to accuse households of lacking awareness. Due to the myth of high toilet construction costs and lack of information, some local households responded that for their livelihood, they need a motorbike, and find that this is cheaper than a proper toilet. However, based on the results of the market research, the most likely reason for not wishing to pay for toilets seems to be a combination of two aspects: poor sanitation habits and lack of information about sanitation options, costs and suppliers. Consequently, lack of money is not the key motivator that makes local households not prioritize building toilets.

In addition, local people explicitly expressed their expectations that they would receive toilet subsidies which make them procrastinate in investing in building toilets. This phenomenon reflects the historical impact of supply-driven approaches on impeding demand for better sanitation.

### 5.2 Limitations of the supply side

#### *Lack of a wide range of toilet options*

It is believed that the on-site toilet model with concrete ring septic tanks developed by IDE is assessed as the optimal option based on three criteria: (i) being beneficial to local livelihoods; (ii) appealing to local customers; (iii) able to be manufactured locally (Frias and Mukherjee, 2005). However, a range of various toilet options is not being formulated for the pilot project due to time and resource constraints. This leads to a lack of diversification into toilet options for potential customers who might want an on-site toilet with waste reuse.

Because this pilot project is considered as a potential model which may be scaled up at national level, the lack of diversification could mislead future practitioners about implementation of sanitation marketing. Promotion of a single model could be seen as a continuation of a top-down and, to some extent, supply-driven approach.

#### *Missing components of the sanitation value chain and the lack of environmental focus*

Tremolet et al. (2010) suggested that sustainable sanitation can be obtained through providing a series of services that has been known as the 'sanitation value chain', as illustrated in Figure 5.1

below. According to the findings from the market research in Section 4.3.1, in target areas, there is a big gap in not only maintenance of septic tank systems and treatment services for tank sludge, but also constructing and operating proper seepage pits or absorption trenches for safe disposal of liquid effluent in accordance with the MOH's standards. These problems raise concerns about the common practice for local people to discharge both the liquid effluent and sludge from septic tanks directly into the garden, ponds or channels.

However, using the terminologies of the sanitation value chain diagram, it is found that both the NTP II and IDE strategies only focus on demand creation for sanitation and collection of human excreta. There is still a lack of environmental focus when the remaining components of the sanitation value chain, for safe disposal of waste, have not been taken into account yet by both MOH and IDE due to many constraints.

As a result, the pilot project has no strategies for developing such environmental services, as mentioned in Section 4.3.2. Furthermore, the specification of IDE's toilet model shows that the drain manhole suggests that it does not fulfil the technical function, as well as construction requirements of adequate seepage pits or absorption trenches. Hence the local people continue the unsafe disposal of both effluent and sludge of septic tanks into the environment. This shortcoming can cause a health hazard as serious as open defecation. To avoid the health impacts and achieve sustainability for scaling up at national level, this issue has to be overcome by designing, training masons and building effective seepage pits or absorption trenches depending on the soil permeability and ground conditions of the target areas. Likewise, a careful strategy needs to be developed for removal, transport, treatment and safe disposal of the sludge from septic tanks.

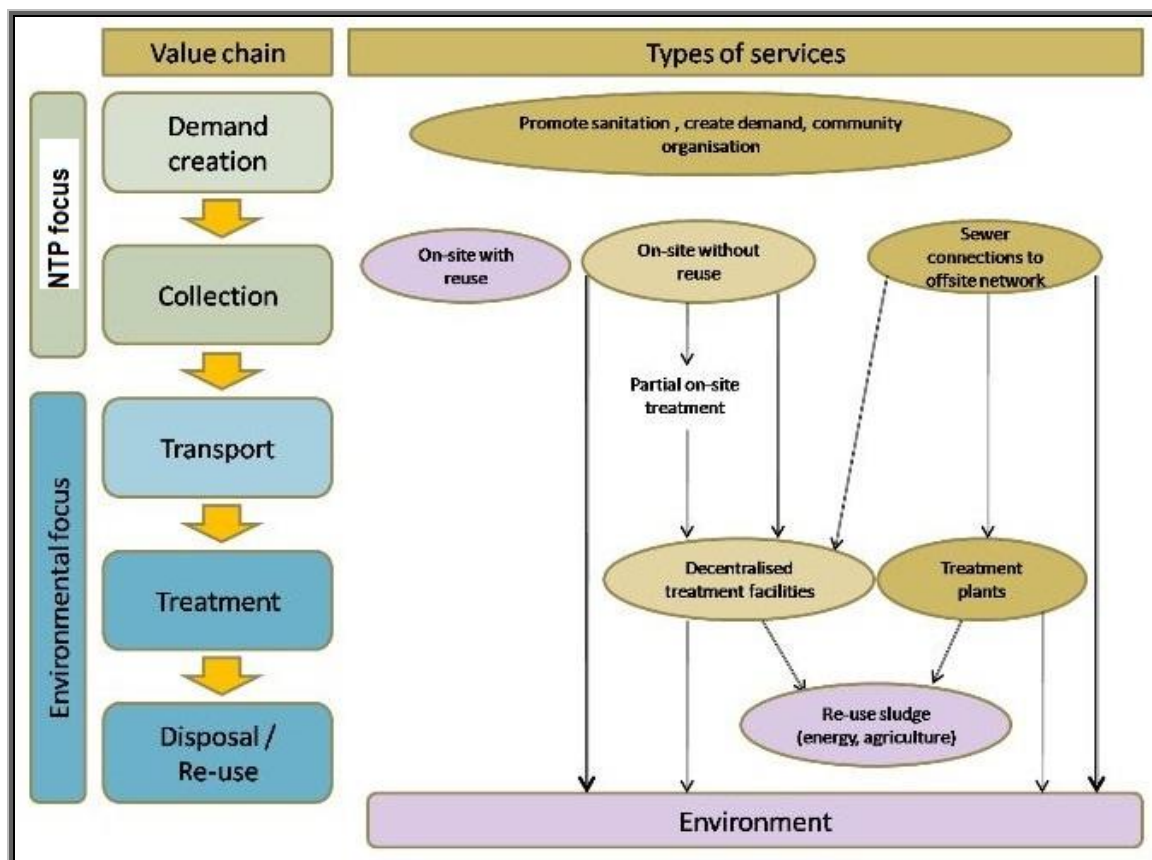


Figure 5.1 - The sanitation value chain (Tremolet S. et al., 2010)



### 5.3 Inhibitors of the enabling environment

The inhibitors of the enabling environment are analyzed here using the political economy framework that has been developed by the WSP Sanitation Global Team (WSP, 2011). This section also provides a discussion based on some supplementary findings at national level.

#### 5.3.1 Sector fragmentation and lack of ownership of innovation

The above shortcomings of the supply side, especially the lack of an environmental focus in the sanitation value chain, are caused by fragmentation of the sector into many sub-sectors, such as water governance, rural development, environmental management, public health and social welfare. For the last decade, the lack of clarity concerning both responsibilities and roles between MARD and MOH has been a primary inhibitor for effectively improving rural sanitation. One example concerns the big gap in provision of sanitation services for transport, treatment and safe disposal of faecal sludge, which is still not undertaken by any institution in rural areas of Vietnam. The impacts of unclear responsibility at national level are compounded by a lack of clear roles of different institutions and of different levels within local governments which inevitably result in cross-sector coordination issues and reduce accountability for delivery of a complete sanitation service.

Although the successes of pilot projects carried out by IDE since 2003 have proven the effectiveness of sanitation marketing as an innovation in many parts of Vietnam, apparently nobody is prepared to take ownership of scaling-up this approach, according to the results of the WSP study on its sustainability (Sijbesma et al., 2010). It means that no-one in the district, province or country, even the former local partners, the provincial CPMs, acknowledges that they own or are responsible for adopting a marketing approach when the pilot projects are over. Moriarty et al. (2005) suggested that the failure to create ownership of innovations is caused by the following reasons:

- Innovation is carried out in an environment that does not reflect the realities of the country or region. Hence problems such as unfavourable legislation, weak institutions or lack of financing opportunities are bypassed or ignored in order to obtain concrete outputs or targets;
- Innovations are implemented as pilot projects by well equipped project teams based on sufficient resources;
- Innovation and knowledge creation is not structured or consolidated for scaling-up which is typically an additional activity in the end of the pilot projects.

As a result, the concept of Learning Alliances for scaling up innovations should be adopted as a conceptual model to help overcome these problems (Moriarty et al., 2005).

#### 5.3.2 Sector arena – stakeholders and institutions

##### *Opposition of senior people in implementing government agencies*

Despite the promising outcomes, sanitation marketing, like other demand driven approaches, has faced opposition from many senior government professionals who have been working in rural sanitation for many years. For this pilot project, sanitation marketing was opposed by senior officers of An Giang CPM who think that it cannot fit into their existing institutional procedures and budget allocation, as mentioned in Section 4.2.1. Furthermore, there are some unwritten reasons for that. First, they appear to that the supply side is already quite developed in An Giang province; therefore there is no need for training local suppliers. Second, the budget for promotion and communication

activities in each target commune proposed by IDE is much higher than the cost norm of the operational fund for the IEC program under the financing regulations of the NTP II program (see Section 4.3.3). As a result, following the financing regulations, they decided to continue with household hardware subsidies which are able to be taken from the development investment fund of the NTP II, thereby reducing the need for the relatively costly promotion activities included in a sanitation marketing approach.

After being relocated to Quang Tri province, once again senior officers of Quang Tri CPM have shown concern about the implementation of the pilot project due to the constraints of institutional procedures and budget allocation (see Section 4.3.3). To overcome this substantial barrier requires the high commitment of the implementing agencies, sufficient technical assistances from IDE, and consistent support of donors in order to obtain the ownership of this innovative approach.

### ***Decision making and budget allocations***

At national level, strong political statements have been made about socialization of investment and management of the NTP II program, which advocates the diversification of investment sources as well as the decentralized management models of water supply and sanitation facilities (GoVN, 2006). However, it is found that there has been a huge strategic gap between national policy and provincial budget execution levels.

For the state budget allocation, this is less an issue of resource scarcity and more a lack of real interest of the budgetary authorities within provincial government, hereinafter referred to as the Provincial People's Committees (PPCs), Department of Planning & Investment (DPI), and Department of Finance (DOF). It is often up to the PPCs whether the provincial executive departments are put under sufficient pressure to allocate budgets to sanitation investment. In addition, despite the national strategy for the NTP II towards demand responsive approaches, the institutional resistance or the policy-to-funding contradictions have been confirmed through the rigid financing regulation which is explicitly aimed towards household hardware subsidies for sanitation interventions within the NTP II framework (see Section 4.3.3).

An additional explanation for the funding problems is found when considering the implementing agencies' lack of governance and technical capacities to manage increased budget allocations for sanitation promotion, including the IEC programs, which also require much more effort, time and human resources compared to subsidized hardware.

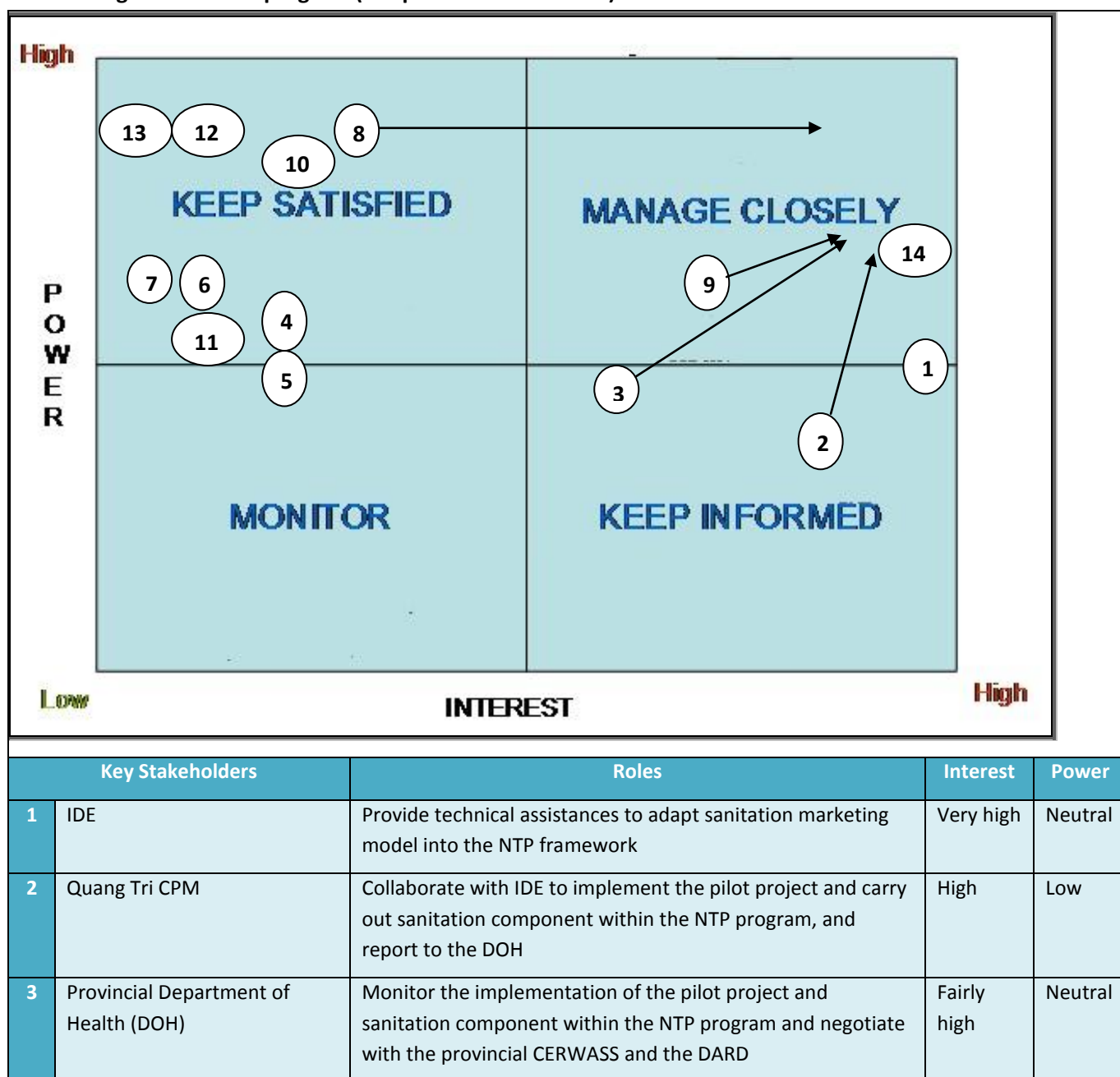
### ***National-provincial relationship and power relations***

Based on information given by key informant interviews, Figure 5.2 provides a visual analysis of stakeholder interests and power relations which clearly shows how the political economy factors have made it very challenging for IDE and the supporters of demand-led strategies to integrate a sanitation marketing approach into the NTP program. According to the stakeholder matrix, the stakeholders with high levels of interest have much less influence on decision making whereas the cross-sector and cross-level coordination issues remain.

The national government, which has set the national strategies and policy and is considered as the principal source of the funds for the NTP program, whether through state budget or credit schemes, actually have limited influence on allocating budgets for implementing the sanitation component of the program at provincial level. It is believed that the PPCs and provincial executive departments, which play key roles in approving and allocating budgets for implementing activities of the NTP

program, have little interest in sanitation investment. Due to the national policy, the national ministries, executive departments and international donors can only influence the allocation of funds for technical assistance, including this pilot project. IDE, the most active actor, faces many difficulties to lobby the PPCs and provincial executive departments for integrating the marketing approach into the NTP program at provincial level. This issue is mainly caused by the lack of political incentives for improving access to sanitation in the pilot provinces. HEMA and DANIDA are also classified as stakeholders with high interest and fairly high influence. However, the support of the PPCs and national and provincial Standing Offices of the NTP are crucial to the success of scaling up the sanitation marketing approach. The arrows in Figure 5.2 suggest the direction in which it might be necessary to aim to move some key players in terms both of their interest and influence.

**Figure 5.2 - Key Stakeholders, Interests and Power in Negotiation over Integrating Sanitation Marketing into the NTP program (Adapted from WSP 2011)**



4	Provincial Standing Office under Provincial Department of Agriculture and Rural Development (DARD)	Manage the implementation of the NTP program and hand in the proposed plan and budget allocation to the DPI, report to PPCs, DARD and MARD	Low	Fairly high
5	Provincial Centre of Rural Water Supply and Sanitation (CERWASS) under the DARD	Implement water supply component and coordinate the NTP program, report to DARD	Low	Neutral
6	Provincial Department of Planning and Investment (DPI)	Approve the NTP's proposed plan and hand in to the DOF and the PPC	Low	High
7	Provincial Department of Finance (DOF)	Guarantee flow of finance resources for the NTP program and propose the budget allocation to the PPC	Low	High
8	Quang Tri Provincial People's Committee (PPC)	Approve the proposed plans and budget allocation for the NTP program	Fairly low	Very high
9	Health Environment Management Agency under the MOH (HEMA)	Manage sanitation component within the NTP program and negotiate with the MARD; and collaborate with IDE to integrate sanitation marketing into the NTP program	Fairly high	Fairly High
10	Standing Office of the NTP under MARD	Coordinate the NTP program, facilitate relations with provincial level and support the development of the Donor Partnership; and hand in the proposed NTP plan to the MPI, report to MARD and Prime Minister	Low	Very high
11	Centre of Rural Water Supply and Sanitation (CERWASS) under the MARD	Provide technical support to Provincial CERWASS, M&E and research and development	Low	Neutral
12	Ministry of Planning and Investment (MPI)	Approve the NTP's proposed plans and hand in to the MOF and the Prime Minister	Low	Very High
13	Ministry of Finance (MOF)	Guarantee flow of finance resources for the NTP program and propose the budget allocation to the Prime Minister	Low	Very High
14	Danish International Development Assistance (DANIDA)	Grant financial support to the NTP program and advocate IDE collaborating with HEMA on integrating sanitation marketing into the NTP framework	Very high	Fairly High

### **Implementation capacity**

During the recent national conference on announcing the results of NTP II, some senior government officers of provincial DOH and CPMs suggested that the sanitation component should be combined with an integrated program or rural development program, such as the National Target Programme on building a new lifestyle in rural areas 2010-2020. They suggest that such an integrated program might create a greater impact than the individual one and the implementation could be less costly. However, according to assessment of the implementation of previous programs, Cairncross (1992) found that a sanitation component used to be neglected when it was combined with other elements, such as water supply. In considering the outcomes of the NTP from 1999 to 2009, the efforts to carry out an integrated programme for water supply and sanitation could not help to achieve the sanitation target because MARD, the former implementing agency, does not have the appropriate staff, structure, and the suitable procedures for both components. Regarding staffing, they may lack knowledge about sanitation, which has a direct effect on public health issues. This is

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the major reason why the MOH replaced the MARD to undertake the sanitation component within the NTP program since 2010. However, health workers, who are already overwhelmed by preventive medicine work, easily feel unfamiliar with carrying out household sanitation promotion programs and frustrated in trying to achieve the outcomes of such programs. In addition, they might lack practical skills in accomplishing social marketing and hygiene promotion which are important to a sanitation marketing approach.

In addition, in the national conference, officers of HEMA and many officers of provincial CPMs also believed that the success of sanitation promotion programs would be achieved by increasing the budget allowance to village health workers. Whether or not this idea could help to sustain sanitation promotion of the NTP, it is vital to take into account the dynamics of the decentralized markets in which village promoters inevitably benefit from the market development at grassroots level.

### ***Financing mechanisms***

As mentioned in Section 4.3.3, the financing of the NTP II program is clearly driven toward hardware subsidies. The expenditure for software activities or IEC programs is only able to be taken from the operational budget which is much lower than the development investment budget (see Table 4.5). Consequently, the total budgets for the NTP program have risen steadily each year due to the increase of capital cost subsidies under the supply-driven approach.

In contrast, the financing for sanitation marketing projects has often decreased each year because the project budgets have only been spent on software activities, such as capacity building and market development. When capacity building and market development are done and the sanitation markets become viable, there is no further need for external support. IDE officers think that the contradiction between two financing mechanisms of the NTP program and sanitation marketing projects is the primary barrier to implementing the pilot project.

### ***Donor influences***

As suggested by Cairncross (1992), donors may lack patience with the outcomes of sanitation marketing when targets are set, the paid people have tasks to be done and are responsible for achieving such targets. However, markets are not as accountable as that and sales cannot be increased by political decrees. Furthermore, sustainable sanitation cannot be reckoned by Target-Based Budgeting (TBB) which has become an increasingly common approach for budgeting of development interventions. This issue has made sanitation marketing projects face the contradictory challenges of satisfying planning and budgetary requirements of the donors.

### ***5.3.3 The lack of a reliable monitoring system***

During the national conference on announcing the results of NTP II in February 2011, Quang Tri CPM reported that the province sanitation coverage is 65%, which is 10% higher than the figure provided in December 2010 (see Table 4.2). This considerable discrepancy was explained by Quang Tri CPM saying that they calculated the figures for NTP II by adding the NTP I results with the number of new toilets built during the implementation of NTP II; while the lower figure was calculated by updating the number of toilets that are still used and those that had just been built. Although these two contradictory figures are given by the same institution, they are both questionable.

Similarly, at national level, the Standing Office under MARD reported the NTP II implementation results for the year 2008, the consolidated figure from MOH, showing that the latrine coverage is

57.5%. A consultant team of DANIDA found that those figures were calculated incorrectly and the actual household sanitation coverage is lower than reported (Cole and Vuong, 2009).

Evidently, there is a need for a reliable monitoring system and public participation to enhance not only the validity of the data but also the transparency of the NTP program performance.

## 6. Conclusions and Recommendations

### 6.1 Conclusions

This report synthesizes the findings from the sanitation market research carried out by IDE in Quang Tri province and provides an analysis of barriers to integrating sanitation marketing into the National Target Program for Rural Water supply and Sanitation of Vietnam. Overall, the study confirms the importance of understanding both the demand and supply sides of the sanitation market, as well as assessing the enabling environment, in order to implement a successful sanitation marketing approach. Within five months of the pilot project implementation described here, a recent project monitoring review suggests that the sanitation market has been stimulated effectively in five target communes, where many local masons now recognize the potential of the market and have started competing with masons trained by IDE in catering to customers.

The findings concerning the demand side show that ***demand for sanitation is explicitly existent*** in the study communes. However, both the poor and the non-poor have been experiencing constraints in accessing information about sanitation options, costs and service providers.

On the supply side, in considering the sanitation supply value chain, ***the strategies of both government agencies and IDE lack an environmental focus*** due to many institutional and social constraints. Although on-site without reuse sanitation has become an increasingly acceptable toilet option amongst villagers, there are no strategies to fill the gaps in environmental services for such options, such as constructing proper seepage pits or absorption trenches for safe disposal of the liquid effluent, and emptying and safe treatment and disposal of sludge from septic tanks in rural areas. If 'socialization' of the rural sanitation sector or decentralized governance of sanitation investments become viable, as is stated in the aims of the National Strategy of RWSS, these issues can be overcome by economic incentives for providing such essential services and innovations.

Regarding the enabling environment, using a political economy analysis, as developed by the WSP team (WSP, 2011), helps us to perceive the challenges as well as opportunities to scaling up this promising innovation at national level. Based on this analysis, it is found that ***the dynamics of economic and political factors play crucial roles*** in influencing the integration of a sanitation marketing approach into the NTP program. Figure 5.2 shows the interest and influence of the key actors and indicates how some of these need to move in order to make a sanitation marketing approach more politically feasible and effective. Both DANIDA and IDE clearly have an important role in lobbying for and supporting moves in this direction.

There is evidence that ***the National Strategy and policy for RWSS are contradicted by the financing mechanism*** for implementation of the NTP program. In other words, the statement in the National Strategy for RWSS about adopting the demand responsive approach cannot hide the fact that the NTP program has still been implemented using a supply-driven approach under rigid financing regulations. Unfortunately, the provincial and national government agencies which are involved lack political incentives for overcoming these policy-to-funding contradictions and improving access to sanitation at the household level.

These challenges have constrained the adaptation of a sanitation marketing approach to the NTP framework, making it just one of several promising innovations not yet being owned by any institution of the country.

Based on new strategies for the NTP III program proposed by the three bilateral donors, AusAID, DANIDA and DFID (see Section 3.3.3), it is expected that ***donor attention is crucial in strengthening accountability of the NTP program implementation and supporting oversight by civil society and local recipients*** of finance and service delivery, especially in the sanitation sector. Hopefully, the implementation of the NTP program can be improved towards a demand-driven approach and there will be more possibilities for scaling up a sanitation marketing approach at national level.

## 6.2 Recommendations

Sanitation marketing shows promise as a valuable approach to improve rural sanitation in Vietnam. The barriers to integrating sanitation marketing into the NTP program have been experienced by IDE from the beginning stage of scaling up innovations in the sanitation sector, and have not been documented properly yet. To support this process, the author will attempt to provide some recommendations which seem to deserve more attention in future.

### ***Creating sanitation marketing Learning Alliances and Networks***

Chambers (2009) emphasized that establishing Learning Alliances and Networks among stakeholders, actors and government agencies is vital for sharing experiences and strategies at all levels in order to achieve ownership of sanitation innovations. These alliances can be built up through workshops, regular meetings or use of existing websites, such as the websites of the Vietnam Rural Water Supply and Sanitation Partnership (<http://www.rwssp.org.vn/EN/>) or the VUFO-NGO Resource Centre (<http://www.ngocentre.org.vn/>). In recent years, the WSP has collaborated with IRC and SNV Vietnam to carry out conferences, workshops and research on the sanitation marketing approach which seem to have had some impressive effects on promoting this innovation at national level according to discussions with IDE's senior officers. For instance, a study called the 'Case study on Sustainability of Rural Sanitation Marketing in Vietnam' was supported by WSP and was carried out by a collaborative research team consisting of researchers from IRC, ADCOM Consultants JSC and WSP (Sijbesma et al., 2010). However, such efforts appear to remain blocked at the upper, national level and are limited to rhetorical statements; there is evidence that none of these effects have reached the provincial level involving local government agencies and civil society.

### ***Realigning accountability of sanitation programs***

Donors should put more efforts into realigning accountability through combining horizontal with vertical accountabilities (WSP, 2011). Regarding a horizontal approach, WSP (2011) suggested that it is vital to involve local civil society and service recipients in monitoring and evaluation of sanitation service. Therefore, advocacy of top-down institutional reform could be complemented through engaging grassroots collective association and mobilization (ibid.).

To ensure the effectiveness of such a movement, monitoring and evaluation systems should be developed by using both outcome and impact indicators, in addition to the regular and, as seen in this report, questionable, measurement of toilet hardware outputs.

### ***Supporting decentralized governance of investment in rural sanitation sector***

The National Strategy for RWSS stated that this strategy aims to implement the '*socialization of RWSS*' which 'is to promote and to organize people, to create a legal basis for the mobilization of active participation and contribution of all economic sectors and all communities in financing and



construction of facilities, in providing repair services and in management and operation of facilities' (GoVN, 2000). This statement implies that the Government of Vietnam supports decentralized governance of investment in the RWSS sector which can create stronger incentives for developing environmental services and horizontal accountability (WSP, 2011). However, turning a political decree into action plans requires substantial efforts of donors and skilled facilitators.

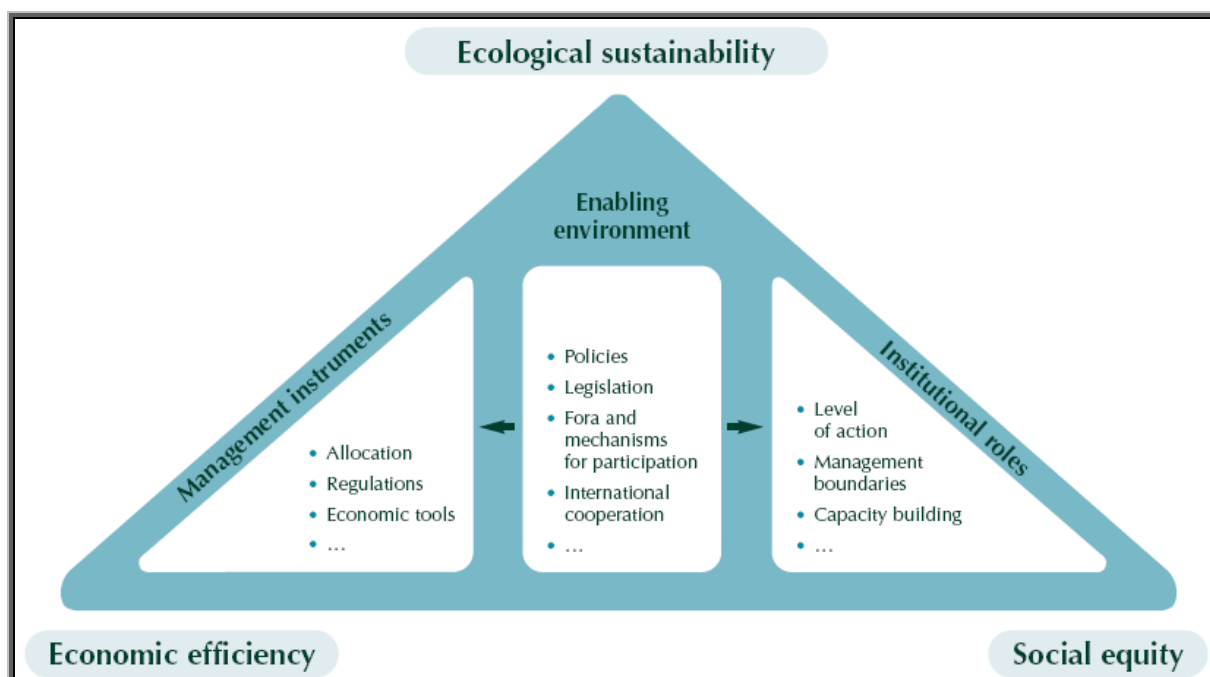
### ***Developing provincial capacities***

Based on an assessment of the enabling environment of the rural sanitation sector, there is evidence that effectiveness of the NTP program implementation depends on the individual provinces. Sijbesma et al. (2010) suggested that engaging rural education institutes for training-of-trainers should be carried out in a scaling-up program. However, before such training takes place, organization of exchange visits to the pilot locations for key stakeholders of the provinces in the target regions is required to create demand for the approach.

### **6.3 Linking to integrated water resource management (IWRM)**

As mentioned in Section 3.1, like many developing countries, Vietnam faces not only severe population pressures but also rapid economic growth and resulting environmental issues, causing deviation from sustainable development. Sanitation is one of the development aspects which is being neglected in the country's race to economic progress.

According to the 1992 'Earth Summit' and the 2002 World Summit on Sustainable Development (WSSD), it is believed that sustainable development or the parallel goals of economic efficiency, ecological sustainability and social equity cannot be reached by traditional sectoral and fragmented management approaches (the 1992 Rio Declaration, Agenda 21, the 2002 Johannesburg Declaration). As a result, a shift toward more holistic or 'integrated' models has been advocated globally (Ewert, 2004). Regarding water and sanitation management, IWRM provides an integrated approach which seeks to address two complex problem sets: sustainable development and cross sectoral planning as shown in Figure 6.1.



**Figure 6.1 - Conceptual framework for IWRM (GWP, 2000)**

To respond to the need for holistic and sustainable approach in the sanitation sector, sanitation marketing is emerging as an effective bottom-up model which aims to protect water resources, human health and the health of the environment, as well as to ensure cost-effectiveness of investments (UNICEF, 2010). The findings and discussions from this study show that a sanitation marketing approach is able to improve access to sanitation through offering appropriate toilets at an affordable cost. But achieving the Vietnamese national targets for rural sanitation also calls for integration of good local planning and sound policies, effective institutions at all levels, up-to-date legislation and regulations, and fora and mechanisms for active participation of the private sector and civil society.

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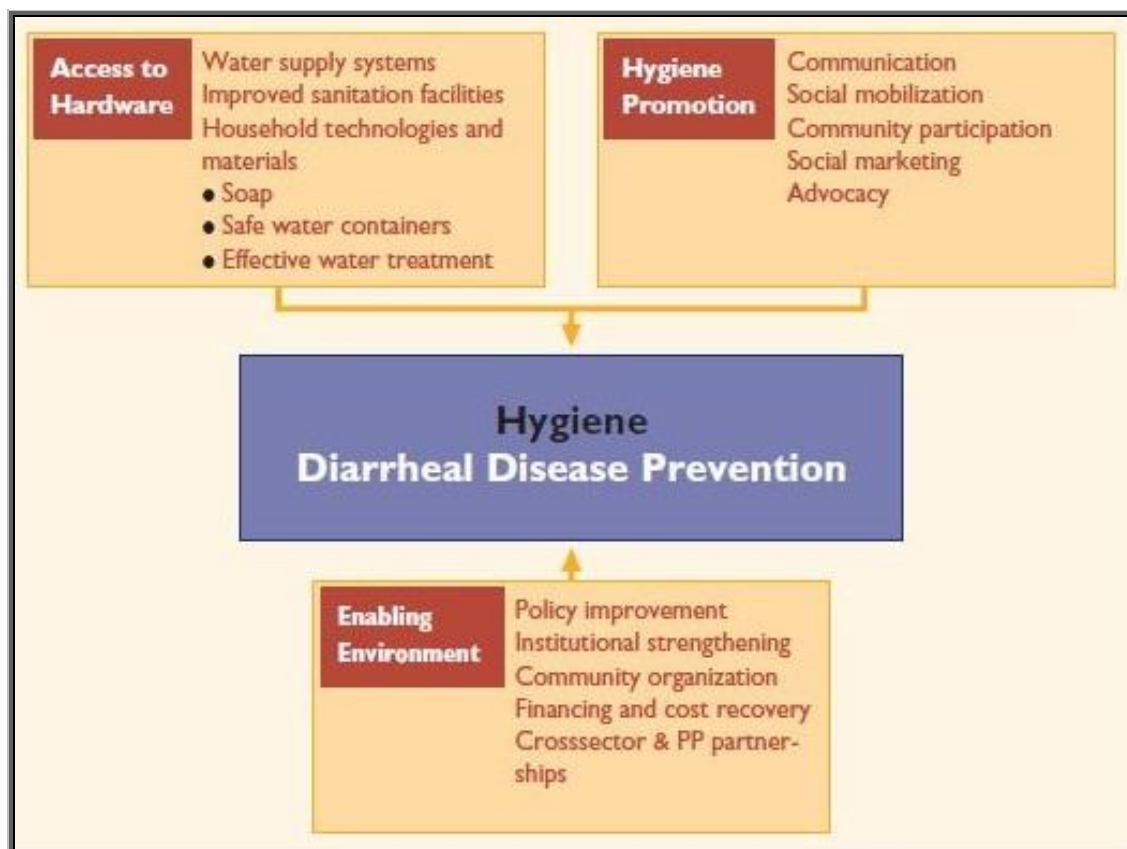
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Annexes

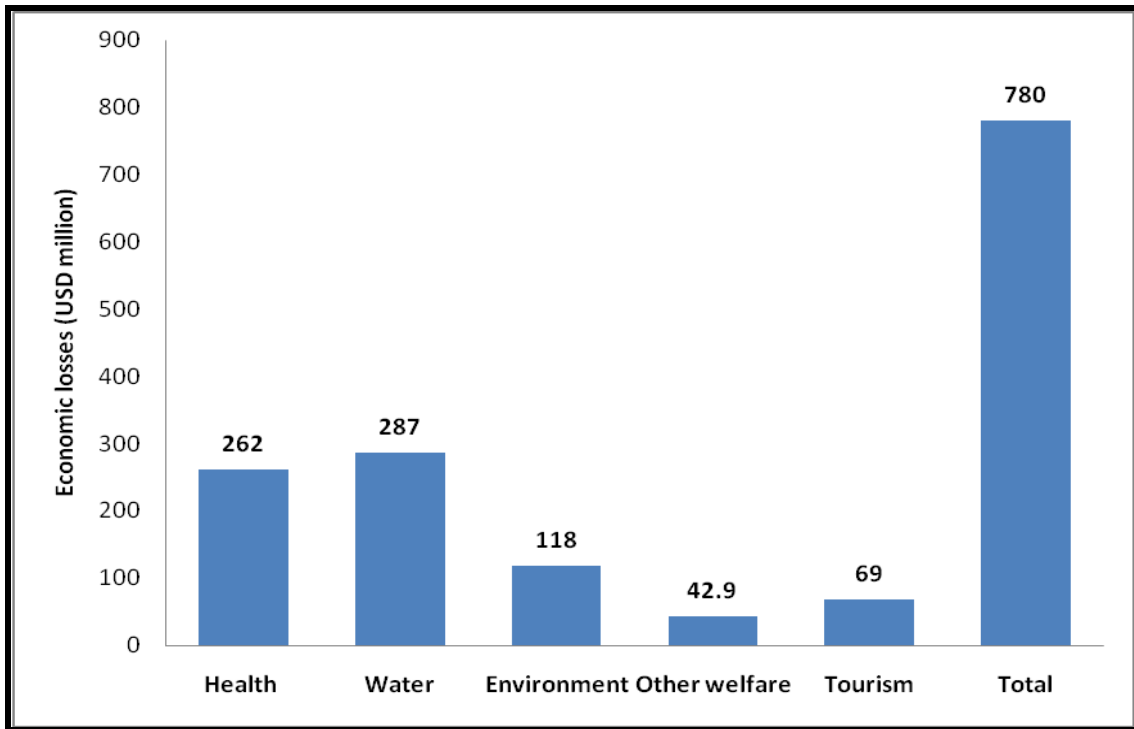
Annex 1 - The Hygiene Improvement Framework (WHO, 2005)



Annex 2 - Rural Population: Water supply, Sanitation and Health (VNHS & VLSS, 2003)

Regions	Income Poverty % Rural population	% Coverage Clean Water supply (VLSS)	% Poor Households with Hygienic Toilets	% Children Under 5 stunted	% Children under 5 with Diarrhoea in 4 week period 2003
Red River Delta	27.1	71.1	13.4	24.0	5.4
North East	52.1	7.7	3.4	32.7	4.9
North West	52.1	7.7	3.4	31.1	8.0
North Central Coast	49.1	21.7	6.6	29.3	5.4
South Central Coast	31.3	20.1	16.9	27.9	8.1
Central Highlands	61.0	4.3	8.0	32.8	8.2
South East	17.7	45.3	31.4	28.4	5.9
Mekong Delta	26.6	48.5	8.3	26.9	6.1
All Vietnam	35.6	39.6	11.5	28.4	6.1

**Annex 3 - Economic losses due to poor sanitation for the year 2005 in Vietnam (WSP, 2008)**



**Annex 4 - Quality Standards for Hygienic Toilets, Ministry of Health (Decision No. 08/2005/QD-BYT)**

**I. General Regulations**

**1. Glossary**

Toilets defined under this standard are: Double-Vault Composting Toilet, Ventilated Improved Pit Toilet, Single Vault Pour Flush Toilet, Septic Tank Toilet used by households. These types of toilets are defined by Ministry of Health as sanitary toilets in terms of techniques and ensure the following requirements:

- a. Be able to isolate human excreta, prevent untreated waste from people, animals and insects;
- b. Be able to annihilate disease-causing substances of excreta (virus, bacteria, unicellular organisms, worm egg) and not pollute the surroundings.

**2. Scope and application objects**

- a. The contents of this standard prescribe sanitary condition of toilets. The requirements of design, materials, dimensions, construction techniques, durability and other aspects of toilets follow the instruction of Ministry of Health.
- b. This regulation is applied to inspect, monitor, evaluate and classify the sanitary condition of toilet types included in this decision.

<b>II. Double-Vault Composting Toilet</b>	
<p><b>1. Building regulations</b></p> <ul style="list-style-type: none"> <li>a. The walls of vaults are closed tight, not leaked out or pervious;</li> <li>b. Waste gates are filled by waterproof materials;</li> <li>c. Floor, channel and urine ditch are smooth and not filled with water;</li> <li>d. The holes for excreta have covers;</li> <li>e. The toilet roof is rainwater-proof;</li> <li>f. Ventilated pipe has diameter of minimum 9 cm; higher than the toilet roof at least 40 cm and has a fly screen.</li> </ul>	<p><b>2. Hygiene operation and use regulations</b></p> <ul style="list-style-type: none"> <li>a. The floor is clean without excreta, rubbish or paper;</li> <li>b. Waste paper is thrown into the hole of excreta or a basket with cover;</li> <li>c. No bad smell;</li> <li>d. No flies or insects in the toilets;</li> <li>e. Do not use both two vaults at the same time;</li> <li>f. There is enough filling matter and put such matter into the holes after defecating;</li> <li>g. No mosquito larva in water containers (if present) and urine storage;</li> <li>h. Excreta are not taken out of the composting vault within 6 months;</li> <li>i. The using hole is closed tight, vault is cemented.</li> </ul>
<b>III. Ventilated Improved Pit Toilet</b>	
<p><b>1. Building regulations</b></p> <ul style="list-style-type: none"> <li>a. Avoid building in regularly flooded areas;</li> <li>b. Distance from water source is at least 10 m;</li> <li>c. Floor is smooth and not filled with water;</li> </ul>	<p><b>2. Hygiene operation and use regulations</b></p> <ul style="list-style-type: none"> <li>a. The floor is clean without excreta, rubbish or paper;</li> <li>b. Waste paper is thrown into the hole of excreta</li> </ul>



<p>d. The hole of excreta storage is higher than ground at least 20 cm;</p> <p>e. The holes for excreta have covers;</p> <p>f. The toilet roof is rainwater-proof;</p> <p>g. Ventilated pipe has diameter of minimum 9 cm; higher than the toilet roof at least 40 cm and has a fly screen.</p>	<p>or a basket with cover;</p> <p>c. There is enough filling matter and put such matter into the holes after defecating;</p> <p>d. No bad smell;</p> <p>e. No flies or insects in the toilets;</p> <p>f. No mosquito larva in urine storage;</p> <p>g. The using hole is closed tight</p>
<p><b>IV. Pour Flush Toilet</b></p>	
<p><b>1. Building regulations</b></p> <p>a. Avoid building in regularly flooded areas;</p> <p>b. Distance from water source is at least 10 m;</p> <p>c. The excreta storage is not sunk and the hole of excreta storage is higher than ground at least 20 cm;</p> <p>d. Floor is smooth and not filled with water;</p> <p>e. The cover of excreta storage is cemented and not cracked;</p> <p>f. Fluids from excreta storage tanks do not overflow to the ground.</p>	<p><b>2. Hygiene operation and use regulations</b></p> <p>a. There is enough water for cleaning and flushing without mosquito larva in water container;</p> <p>b. No bad smell;</p> <p>c. The floor is clean without excreta, rubbish or paper;</p> <p>d. Waste paper is thrown into the hole of excreta or a basket with cover;</p> <p>e. No flies or insects in the toilets;</p> <p>f. Toilet platform is clean and without excreta;</p> <p>g. The toilet roof is rainwater-proof.</p>
<p><b>V. Septic tank Toilet</b></p>	
<p><b>1. Building regulations</b></p> <p>a. Septic tank includes three chambers;</p> <p>b. The tank is not sunk;</p> <p>c. The cover of excreta tank is cemented and not cracked;</p> <p>d. Floor is smooth and not filled with water;</p> <p>e. Toilet platform has water seal;</p> <p>f. There is ventilated pipe.</p>	<p><b>2. Hygiene operation and use regulations</b></p> <p>a. There is enough water for cleaning and flushing without mosquito larva in water container;</p> <p>b. No bad smell;</p> <p>c. The floor is clean without excreta, rubbish or paper;</p> <p>d. Waste paper is thrown into the hole (if autolytic) or a basket with cover;</p> <p>e. No flies or insects in the toilets;</p> <p>f. Toilet platform is clean and without excreta;</p> <p>g. The toilet roof is rainwater-proof;</p> <p>h. The liquid effluent from septic tank is discharged into sewer or seepage pits or absorption trench; does not flow freely around.</p>

**Annex 5 - Clean Water supply and Hygienic Toilets by Income Groups (VLSS, 2003)**

Region	Clean Water Supply			Hygienic Latrines		
	Poorest 20%	Middle 20%	Richest 20%	Poorest 20%	Middle 20%	Richest 20%
Red River Delta	54.7	73.1	93.2	2.5	11.9	71.1
North East	5.3	11.6	47.3	0.5	3.6	51.0
North West	5.3	11.6	47.3	0.5	3.6	51.0
N. Central Coast	12.9	30.1	65.1	2.6	7.5	57.1
S. Central Coast	16.0	21.7	63.9	4.0	19.4	83.0
Central Highlands	4.3	9.4	43.9	1.3	16.9	76.7
South East	27.7	37.8	87.6	6.5	23.1	86.7
Mekong Delta	41.1	48.8	75.3	1.0	4.9	44.8
All Viet Nam	22.7	42.7	78.8	2.0	10.7	69.6

(2003, VLSS data)

**Annex 6 - Suggested questions of the market research in Trieu Phong district, Quang Tri province****A. Suggested questions for interviews with officers at district and province levels*****I. Issues of the enabling environment***

1. Situation of access to clean water and sanitation of the district over the last 3 years (the rate of households accessing to clean water, toilets, water supply facilities at public areas, such as schools, offices, markets etc.), the implementation of credit scheme for households to build water and sanitation facilities.

2. Status of reaching the poor in water and sanitation programs.

3. The implementation of the NTP II by various components (water supply, household toilets, husbandry sanitation, communication etc.) according to the following aspects:

(i) The results of implementation, successful experiences (water supply, sanitation);

(ii) Difficulties, constraints of the implementation (regarding institutional procedure, policies, financing, implementation methods, especially household sanitation component)

(iii) Implementation capacity of the NTP II program at district level, staffs reaching to communes, hamlets etc. (in particular, capacities of technical consultation about toilets, provision of services, carrying out IEC within community activities etc.)

(iv) Coordination with vertical professional guidance at province level and involved agencies.

4. The implementation of programs and projects on water and sanitation in district area. What are the strengths and weaknesses of these interventions?

5. The situation of integrating water and sanitation at household level into other development interventions in district area, including the NTP II and international programs.

***II. The relevant issues to integrating IDE's approach***

6. The situation of sanitation, health issues in community in relation to hygiene practice and sanitation habits.

7. Initial assessments of government agencies about sanitation markets and opportunities to develop the markets.

- (i) Assessing the potential of the demand side: awareness, demand of local people, infrastructure, financial ability of households, opportunities to access to financial support sources (credit, saving, paying in instalments), what are the main constraints of the demand side?
  - (ii) Assessing the situation of supply side: How the supply network is working (material, availability of dealer at commune level, capacity of masons, marketing techniques, instalment payment etc.). What are the common types of toilets and technical and financial appropriateness to local people?
8. Initial perspectives, forecast and experiences of government agencies about sanitation marketing, feasibility and potential to succeed in district area?
9. What are the advantages, difficulties in applying the sanitation marketing approach?
10. What are the possibilities to integrating this approach into the NTP II program within the context of Quang Tri province and the central region?

## **B. Suggested questions for interviews and discussions at commune level**

### ***I. Socio-economic context and access to sanitation in communes***

1. Background, demographic of commune: population, size of household, employment, economic growth, types of business, poverty level, infrastructure development etc.
2. Access to water and sanitation: rates of households using clean water, toilets, types of common toilets in commune (dividing into sanitary toilets, unsanitary toilets and without toilets)
3. Water and sanitation programs are being implemented in commune, in particular:
  - (i) What kinds of activities are? Who are beneficiaries?
  - (ii) How are the interventions carried out? (Design and plan stages, implementation, monitoring and evaluation)
  - (iii) Which organisations and people participate in the implementation (even local people, beneficiaries)? And how do they participate?
  - (iv) How evaluate the outcomes and effectiveness of these interventions?
  - (v) How are activities of communication, information about sanitation in commune?

### ***II. Situation and possibilities to develop sanitation markets***

4. Sanitation situation, health issues in community in relation to hygiene practice and habits of using toilets of local people in commune. Which kinds of households have toilets? Which kinds of households have no toilets? Which kinds of households have unsanitary toilets? Why?
5. Which types of toilets are households using, regarding technical design, costs?
6. Investment motivations of households (suitable time for building toilets, investment motivations, willing level, priority level, financial acceptability, decision making process, costs etc.)
7. Existing information channels and accessing to information about sanitary toilets. Who provides such information to households?
8. For households without toilets, what are the main reasons?
9. What are difficulties, constraints on households to build toilets?

10. What are opportunities, advantages in commune in order to develop building toilets (such as credits, movement etc.)
  11. Capacity of the supply side, including quantity and quality (material shops, techniques, masons, operation and maintenance)
    - (i) Methods to provide services, approach to customers, follow-up services;
    - (ii) Existing methods, capacity of using masons as promoters;
    - (iii) Difficulties, challenges of developing sanitation markets.
  12. Perspectives of commune authorities on applying sanitation marketing, suggestions about priority activities needed in commune area;
- Time is used by hamlet officers for their tasks (how many days per week?) – do they receive any allowances or incentives?

### **C. Suggested questions for interviews and discussions with households**

#### ***I. Households with sanitary toilets***

1. The types of toilets are used by households, including the technical features, costs.
2. Purposes and motivations of building sanitary toilets (figure out the reasons why households decided to invest in building toilets, or what events make them build toilets?)
3. In household, who play the main roles in deciding to invest, choosing designs, costs of materials and labour? Why they chose like that? Which information is based on to choose? Finding whom to ask for information?
4. The process of building toilets (Who built? How is the quality? Who monitored?)
5. Financial sources to build toilets: from loans or their own money; if they used their own money, how long did it take them to have enough money to build toilets? How are the possibilities to pay labour and materials by instalments?
6. How are the operation, cleaning up, and maintenance? If there is any problem, how could households address?
7. What are the main changes (health, surroundings, habits and hygiene practices etc.) since households had toilets?
8. How the households are using toilets? How are collection and treatment of children' faeces (under 5 years old)?
9. What information channels reach households? Where do they often get information? Where do they get information about health and sanitation?

#### ***II. Households with unsanitary toilets or no toilets***

1. What do they pay the most attention now? (What makes them happy? What makes them fear most?)
2. What are the main reasons why they have not built sanitary toilets yet? At present, where do family members defecate? How are collection and treatment of under 5 year old children' faeces?
3. What are the disadvantages of having no sanitary toilets (with men, women, elders, children etc.)?

4. How is households' knowledge and awareness about sanitary toilets and hygiene practices, the necessity of having sanitary toilets?
5. Which information channels do they get information from? Where do they often get information?
6. How are households capable of accessing to technical information, toilet options, and market prices?
7. How are households' financial ability, saving ability in order to have money for investment, access to credit or loans? How much are they able to pay for building toilets?
8. What the difficulties, constraints do households need to overcome to have sanitary toilets?
9. Have households had plan for building toilets yet? If they have, how do they carry out the plan? Who are main actors in carrying out this plan? (for example, who save money, ask for information about toilet options, costs etc?) What is the role of each member (wife, husband, children etc.)?
10. What support do households need to have toilets (for techniques, appropriate technologies, information, well-skilled masons etc.)?

### ***III. Questions for local masons***

1. What are your experiences of common building sanitary toilets, types, technologies in local areas? (How many toilets did they build in commune and other communes?)
2. Where did you learn how to build these toilets?
3. What are common ways to build toilets in commune (hiring labours or paying for package deal consisting of materials etc.)?
4. Construction costs of building toilets in comparison with other structures (asking for costs of labours or materials)
5. How many days do you need to build toilets?
6. How do they carry out maintenance? If there is difficulty or confusion about technologies, how do you address?
7. Have you applied any marketing techniques yet? Or did you wait for households asking? If you have, how did you marketing?
8. How are relationships between masons and material suppliers?
9. Are you willing to let the poor households pay labour cost in instalments?
10. Are you willing to become promoters to mobilize households to invest in building toilets?
11. Based on your experiences, what are the most difficulties, constraints of marketing and promoting households to build toilets?