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AusAID

## **Activity Completion Report**

Options and Ownership:

Water and Sanitation for Rural Poor in the Mekong Delta project

Ca Mau and Soc Trang Provinces, Vietnam

CARE International Vietnam / CARE Australia

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## ABBREVIATIONS AND ACRONYMS

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ACR	Activity Completion Report
AUD	Australian Dollars
AusAID	Australian Agency for International Development
BCC	Behaviour Change Communication
CERWASS	Centre for Rural Water Supply and Sanitation
CORD	Cooperatives and Rural Development
DOE	Department of Education
GOV	Government of Vietnam
HH	Household
HW	Hand washing
IDI	In-depth Interview
IEC	Information, Education, and Communication
IPSC	Inter Provincial Steering Committee
INGO	International Non-Governmental Organisation
IVWSP	Integrated Village Water and Sanitation Planning
KAP	Knowledge, Attitudes, and Practices
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MOU	Memorandum of Understanding
MTR	Mid Term Review
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
PAOT	Participatory Action Oriented Training
PIS	Project Implementation Strategy
PIT	Project Implementation Team
PMU	Provincial Management Unit
PPC	Provincial Peoples Committee
RTI	Reproductive Tract Infection
RWSS	Rural Water Supply and Sanitation
RWSS-NTP	Rural Water Supply and Sanitation National Target Program
USD	United States Dollars
VANGOCA	Vietnam Australia NGO Cooperation Agreement
VND	Vietnam Dong
WASH	Water, Sanitation, and Hygiene
WSM	Water and Sanitation Motivator
WU	Women's Union
WUG	Water User Group
VWSC	Village Water and Sanitation Committee

### GENERAL INFORMATION

<b>Activity Name</b>	Options and Ownership: Water and Sanitation for Rural Poor in the Mekong Delta	
<b>Country</b>	Vietnam	
<b>Activity locations</b>	Ca Mau and Soc Trang Provinces	
<b>Delivery Organisation</b>	CARE Australia	
<b>Donor Organisation</b>	Australian Agency for International Development (AusAID) under the Vietnam Australia NGO Cooperation Agreement (VANGOCA) program	
<b>Implementing Partners</b>	Ca Mau Province	Provincial CERWASS Provincial Women's Union
	Soc Trang Province	Provincial CERWASS Provincial Women's Union
<b>Approved Budget (AUD)</b>	AUD 4,670,000	
<b>Actual Expenditure (AUD)</b>	To be finalised	
<b>Key Dates</b>	Concept approval	March 2004
	Mobilisation	October 2005
	Mid-Term Review	October 2007
	Extension 1	April 1 2010 (18 months)
	Extension 2 (Soc Trang only)	October 1 2011 (9 months)
	Activity Completion Report	May 2012
	End of Project	September 30 2012 (Ca Mau) June 30 2012 (Soc Trang)
<b>Aid Modality</b>	Project	
<b>Financing Arrangement</b>	Imprest account	

### CERTIFICATION

The Activity Completion Report has been completed in accordance with the relevant Guidelines/tasking from AusAID.

PETER LEAHY

Name and signature of authorised officer of CARE Australia

Date 29/6/12

## **EXECUTIVE SUMMARY**

The *Options and Ownership: Water and Sanitation for Rural Poor in the Mekong Delta* project (the Project) is an AUD4.67 million rural water supply and sanitation (RWSS) project implemented in collaboration with Ca Mau and Soc Trang Provinces with funding from AusAID from 2005 to 2012. The Project aimed to improve the health and productivity of poor rural men and women via improved access to water supply and sanitation. It targeted poor and very poor households (HHs) in 24 villages in each Province.

### **Outcomes**

The Project effectively built and responded to demand from target beneficiaries for improved water and sanitation. A significant increase in water and sanitation coverage resulted in the target communities. The Project performed exceptionally well in terms of changing hygiene and sanitation knowledge and behaviours; thereby augmenting the impact on health of improved water and sanitation facility access. The Project's performance in terms of improving RWSS coordination as well as in terms of management was less strong.

Notable positive unexpected Project outcomes included: a) a number of the Project's main information, education and communication (IEC) activities have been scaled up in both provinces; b) the promotion of the Project's waste management solutions have been sustained, b) significant demand for improved RWSS has been created beyond beneficiary HHs and villages; d) improved sustainability of water supply delivery with small scale piped water schemes, e) interest in the use of participatory approaches in government of Vietnam (GOV) programs; and f) provincial capacity for water quality monitoring has been considerably improved.

### **Long-term Benefits and Sustainability**

Results are good in terms of the sustainability of Project hardware and software. The hardware delivered by the Project has been sustainable. Problems with construction quality and operation and maintenance (O&M) were a potential threat to functionality, but were effectively addressed. Between 74% and 100% of users were satisfied with their RWSS facilities, and 96-97% of facilities are well operated and maintained. Small scale piped water schemes functioned well after more than one year of operation. RWSS service provider capacity has been built and can effectively meet demand after the Project ends. In terms of software, the participatory Integrated Village Water and Sanitation Planning (IVWSP) process does not fit well with GOV planning, but elements of the approach could be integrated into, e.g., RWSS National Target Program (RWSS-NTP). Participatory Action Oriented Training (PAOT) is already being taken to scale.

### **Relevance**

The Project was well aligned with AusAID's 2003-2007 Country Strategy and the national RWSS Strategy to 2020. It can be considered a good example of the application of the RWSS Strategy's demand responsiveness principle. The project effectively responded to a number of relevant local RWSS needs and challenges.

### **Appropriateness of Objectives and Design**

Three of the Project's four component objectives can be considered realistic and feasible to achieve. However, the objective of "improving RWSS inter-agency and program coordination" was not feasible due to a lack of agreement and buy-in among the project partners.

Strengths of the Project design included: a) it was based on detailed knowledge of the community level opportunities and challenges due to an 8-month pilot; b) Project management set up which called for partnering with provincial agencies added sustainability; c) enabled demand responsive RWSS delivery in the target villages, and d) resulted in the scaling up of good project features. Weaknesses of Project design included: a) a narrow demographic scope set a limit to the Project impact, b) the design document was not practical enough to allow for immediate implementation; c) a complex management structure; d)

initially planned IEC approach for which little expertise was available; e) inadequate assessment of role and leverage of INGOs in the Vietnamese institutional and policy making context; f) lack of a documentation and dissemination strategy, and g) subsidy-setting was not based on an initial assessment of willingness to pay.

### **Implementation Issues**

The Project was affected by a number of implementation issues. Long-standing defecation habits combined with substandard latrines provided earlier by previous interventions posed challenges to raising demand as did the inability of some poor households to pay a contribution. Initial collaboration difficulties between CARE and its partners led to implementation and disbursement delays. High staff turnover and problems in recruiting qualified Project staff put a strain on project management and the collaboration with partners. A three-year delay in initiating IEC/behaviour change communication (BCC) activities due to management challenges and difficulty in recruiting qualified technical assistance (TA) meant that the Project did not realise its full potential in terms of RWSS demand creation. Despite these challenges, the Project was able to deliver demand responsive RWSS and bring about water, sanitation, and hygiene (WASH) behaviour change.

In terms of gender equity, the Project had good results, providing women with professional opportunities and opportunities to participate in community RWSS decision making processes. Less sustained attention was paid to raising awareness about and improving gender equity in the home.

### **SUMMARY OF LESSONS LEARNED**

1. The impressive changes in WASH-related knowledge and behaviours brought about by the Project may be attributable to two main factors: i) the Project's IEC/BCC methods and messages (notably PAOT) and ii) the focus on behaviour enabling solutions (e.g. a hand washing device).
2. The small scale water supply stations piloted in the Project present a cost-efficient and sustainable model for water supply delivery for remote communities where groundwater extraction is feasible.
3. The Project's participatory IVWSP approach overall worked well to ensure that beneficiaries built water and sanitation facilities, which fit their needs and preferences, and that the facilities were later appropriately operated and maintained.
4. Though challenging, a closer collaboration with provincial GOV partners than most NGO projects resulted in significantly greater impact and sustainability for the Project's approaches and outcomes.
5. The problems faced by the Project in terms of the functionality of a number of cement water jars could have been avoided by placing a greater emphasis on provider skills in contracting, further training of providers, and O&M training for HHs from the outset.
6. By contracting and training local masons, the Project has been able to ensure that RWSS construction services are available to meet demands of HHs in and near the target villages even beyond the lifetime of the Project.
7. The price of the semi-septic and septic tank latrine models and a lack of financing options may make it difficult for poor and near poor HHs to continue building these when the Project support ends.
8. HHs may be faced with challenges when they need to remove septage from their septic tank latrines every 5-10 years to ensure their continued hygienic functioning. As in most other rural areas of Vietnam, septage removal and treatment services are not available in the Project areas. For this reason, HHs are likely to end up handling and disposing of the septage by themselves and, as such, there is a risk that not all septage will be handled and disposed of safely.

9. The bottom up IVWSP process is unlikely to be sustained and replicated in its entirety in GOV programs (including RWSS-NTP), because it does not fit the top down planning of the GOV system. However, some components of the IVWSP process may lend themselves to replication.
10. PAOT appeared to have been more effective than most approaches at communicating WASH behaviour change messages to its target audience. Recall of behaviour change messages was high among beneficiaries.
11. PAOT has potential for larger scale replication. It is the first example known to the ACR mission team of an RWSS IEC/BCC approach introduced via an NGO project, which has subsequently been taken to scale by GOV partners.
12. The Project likely made a major contribution to whatever progress was made in the Ca Mau and Soc Trang provinces towards the achievement of the RWSS-NTP targets, in particular as regards sanitation, and that coverage rates would have been considerably lower in the absence of the project.
13. The Project was well aligned with the demand responsiveness principle of Vietnam's RWSS Strategy to 2020. The application of the principle has been extremely limited in practice within the RWSS-NTP and the Project could, thus, be considered as a good example of its application.
14. The Project's objective of improving RWSS inter-agency and program coordination was not feasible due to a lack of agreement and buy-in among the project partners. In hindsight, it can be debated if improving inter-agency and program coordination was a realistic and suitable objective for a project led by an NGO or if it would not have been more appropriate to have partners lead this process.
15. Implementing project activities in a few villages in a relatively large number of communes (eight) and districts (four) in each province was an effective strategy to encourage the scale up of good practices.
16. However, the limited number of HHs in the 48 villages (16,602 in 2011) may have constrained the performance of the Project and kept it from realising its full potential in terms of RWSS demand creation and delivery to the poor and near poor. With capacity already built in the communes, more HHs could have been reached at little additional cost.
17. Revising the PIS in collaboration with Project partners was a good method to address the issue of a Project document which did not provide enough guidance for implementation. The PIS worked well to create a shared understanding of goals, targets, and stakeholder roles and responsibilities; thus allowing the Project to move forward more efficiently.
18. A complex Project management structure – with five management levels - constituted a challenge to implementation progress initially. The removal of two levels of management made implementation progress considerably smoother.
19. The Project design's reliance on support from a fellow INGO for the realisation of the BCC approach (social marketing) was a significant weakness. The failure of this INGO to provide support and CARE's subsequent inability to find qualified TA led to a long delay in the start up of BCC activities.
20. The project design paid limited attention to documenting and sharing the Project's good practices and lessons learned. As a result, the Project's very successful elements are known to few in the RWSS sector beyond CARE and its partner agencies.
21. IEC and HHs ability to see and feel assured about the quality of Project latrines were critical factors in building HHs demand for hygienic sanitation. The delay in making both factors a reality in the Project resulted in a significant delay in sanitation demand creation.

22. High staff turnover and difficulty in recruiting staff put a strain on project management and made it challenging for partners to work with the Project, as they frequently had to adjust to the different working styles of changing CARE staff.
  23. Partner's appreciation for collaboration and capacity building varied. Where partners had been more open to collaborate and receive technical support, better Project results appeared to have been achieved.
  24. The Project's training for masons on its latrine models (i.e. an explanation of technical latrine drawings) may have had limited impact on RWSS provider skills, because it did not fit well with their existing knowledge and styles of learning. Most of them cannot read technical drawings and have learned their trade entirely by doing.
  25. The Project's main contribution to gender equity was through the opportunities it provided women to participate in community level processes and decision making. The Project's focus on gender equity at the HH level was more limited as was the impact achieved in this sphere.
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## PROJECT SUMMARY

### 1. PROJECT DESCRIPTION

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#### **1.1 Background and Rationale**

The *Options and Ownership: Water and Sanitation for Rural Poor in the Mekong Delta* project (the Project) is an AUD4.67 million rural water supply and sanitation (RWSS) project, which has been implemented in collaboration with Ca Mau and Soc Trang provinces and is funded within the framework of the Vietnam Australia NGO Cooperation Agreement (VANGOCA) program. The aim of VANGOCA was to support the implementation of Australian Agency for International Development's (AusAID) Vietnam Country Strategy (2003-2008) by, among other things, working with Australian NGOs in the water supply and sanitation sector. The Project sought to improve the health and productivity of poor rural men and women via improved access to water supply and sanitation, and thereby contribute to a sustainable reduction of poverty in the target communities in Ca Mau and Soc Trang provinces.

The Project concept was approved by AusAID in March 2004 and the project was designed over the subsequent eight-month period. The design included a pilot component, which was carried out in two villages in each province. The comprehensive pilot encompassed, among other things, testing of appropriate water and sanitation models, community based planning approaches in selected target communities, and delivery of complementary Behaviour Change Communication (BCC) material. The Project began in October 2005 upon the approval of AusAID, and the Government of Vietnam (GOV).

#### **1.2 Project Goals, Objectives, and Components**

The project goal was "improved health through increased access to clean water and sanitation." The Project Document identified four major objectives, which had to be achieved to reach this goal. Each major objective was associated with a distinct project component. The component objectives comprised:

*Component One:* Water and sanitation service providers (public and private) respond to user demand and community needs for appropriate, timely, quality advice, information and service provision.

*Component Two:* Men, women, and children in the target communities demonstrate improved hygiene and sanitation awareness, behaviour and practices.

*Component Three:* Enhanced RWSS inter-agency and program coordination.

*Component Four:* Effective and efficient project coordination and management.

#### **1.3 Geographic Scope**

The project targeted poor and very poor households (HH) in 48 villages across Ca Mau and Soc Trang (four districts, eight communes in each province). Project districts and communes were selected against criteria which included poverty rates, a high proportion of Khmer inhabitants, and low water supply and sanitation access. Within the project communes, three target villages were selected according to similar criteria. An overview of the target areas can be found in Annex A.

#### **1.4 Project Chronology**

The project started in October 2005 and was planned to end in March 2010. Due to various challenges, Project implementation was delayed during the first two years. Project performance improved following changes to management and the project implementation strategy (PIS) after the Mid-Term Review (MTR) in 2007. An 18-month no-cost extension was granted for the Project to be able to catch up with the early delay in implementation. Project activities were suspended in Soc Trang province from June 2010 to allow for a review related to governance issues and were resumed in September 2011. The Project closed in Ca Mau on September 30, 2011 and will close in Soc Trang on June 30, 2012.

### **1.5 Governance and Management Arrangements**

The Project was governed by Memorandums of Understanding (MOU) signed between CARE International in Vietnam and the Provincial People's Committees of Ca Mau and Soc Trang, respectively, in October 2005. The MOUs defined the overall responsibilities for the project, the project management structure, the responsibilities of each stakeholder involved, and the financial management arrangements.

A management and implementation structure was set up for the Project at provincial, district, commune, and village level in both provinces. After two years of implementation, the organisational structure was simplified and the district level management unit, among other things, was removed to allow for smoother implementation. An overview of the revised management structure is provided in Annex B.

CARE International in Vietnam worked closely with the Centre for Rural Water Supply and Sanitation (CERWASS) in Ca Mau and Centre for Cooperatives and Rural Development (CORD)<sup>1</sup> in Soc Trang to manage the project, with these agencies playing the role of Provincial Management Unit (PMU) chair. In addition, the Women's Union was a close partner in the management and implementation of the Project at provincial, commune, and village level. CARE played the role of supporting the partners in the Project implementation, building capacity of partners, monitoring processes, financial procedures, and overall progress, and reporting to partners.

### **1.6 Cross-Cutting Issues**

Considerations of the cross-cutting issues of gender, poverty, and ethnicity were integrated across project activities. The promotion of gender, poverty, and ethnic equity was a key Project strategy, entailing among other things preferential targeting of these groups for project participation and support.

## **2. EXPENDITURE/INPUTS**

This section will be completed when all project accounts have been settled.

## **3. PROJECT STRATEGY, OUTPUTS, AND MAIN ACTIVITIES**

Based on the findings from the project design phase, five major strategies were identified as appropriate to achieving the project goal in an effective, pro-poor, and sustainable manner. The five major project strategies comprised:

1. Facilitate decentralised, demand responsive RWSS planning and service delivery
2. Improve hygiene and sanitation awareness, behaviour, and practices
3. Improve inter-agency and program coordination
4. Promote poverty, gender, and ethnicity equity
5. Increase capacity of public and private sector RWSS service providers

CARE International in Vietnam and its partners pursued the five major strategies via four main project components. In the following, each project component and the main activities and outputs delivered under the component are presented.

### **Component One: Water and sanitation service providers (public and private) respond to user demand and community needs for appropriate, timely, quality advice, information and service provision**

#### **Targeted Outputs**

- 1.1 Village, commune, district, and provincial RWSS service providers demonstrate improved capacity to research, plan, implement, and monitor demand responsive RWSS service delivery
- 1.2 Appropriate water and sanitation technologies and options identified, piloted, documented, and

<sup>1</sup> Later the department was renamed CERWASS.

- promoted
- 1.3 Water User Groups (WUG) and Village Water and Sanitation Committees (VWSC) at village and commune level identified and operational
  - 1.4 Integrated Village Water and Sanitation Plans (IVWSP) developed and executed in accordance with agreed procedures
  - 1.5 Household and community funding mechanisms identified and operational

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#### **Short Activity Summary**

Suitable RWSS models were identified and tested. VWSCs were formed and trained in each target village. VWSCs led their communities to formulate and implement the IVWSPs. In Phase I, IVWSP were formulated in 32 villages and in Phase II in another 16 villages with budgets of USD 480,000 and USD 160,000 respectively. (For an overview of the IVWSP process, see Annex C). Poor and priority HHs were supported to improve their water and sanitation situation. Several rounds of IVWSP formulation took place in each village to enable all eligible HHs to benefit. VWSC and HHs were trained to monitor construction and to operate and maintain their facilities. Construction was done by local RWSS providers, who were contracted by the VWSCs and the Commune Management Units (CMU). These RWSS providers were trained on the Project RWSS models. Drilled wells were tested for arsenic each year by the VWSCs, who were trained by the Project to make arsenic quick tests. Further, arsenic filter systems were installed for 12 drilled wells with levels of arsenic contamination above 0.5 mg. Water quality monitoring lab equipment was provided to CERWASS in each province to ease water quality monitoring in Ca Mau and Soc Trang as well as nearby provinces.

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### **Component Two: Men, women, and children in the target communities demonstrate improved hygiene and sanitation awareness, behaviour and practices**

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#### **Targeted Outputs**

- 2.1 RWSS knowledge, attitudes, and practices (KAP) research facilitated at village level in both provinces
- 2.2 Water and Sanitation Motivators (WSM) networks at village level identified and operational
- 2.3 Social and product marketing campaigns designed and delivered

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#### **Short Activity Summary**

The Project established WSM networks in all target villages. A KAP survey was carried out in 2006. IEC materials were developed to support RWSS demand creation and O&M as well as water, sanitation, and hygiene (WASH) behaviour change. WSMs were trained on WASH-related diseases, IEC and behaviour change communication skills, group facilitation skills, IEC materials use, Participatory Action Oriented Training (PAOT), and more. IEC/BCC activities were carried out in 48 villages from 2008 onwards with a focus on four WASH behaviours: hand washing with soap, latrine usage, water treatment, and improved waste management and tools. WASH IEC events for schools and communities, respectively, were developed and carried out. Teachers were trained in the school WASH IEC activities.

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### **Component Three: Enhanced RWSS inter-agency and program coordination**

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#### **Targeted Outputs**

- 3.1 Mechanism for provincial level coordination agreed and functioning
- 3.2 Review of provincial RWSS legal, policy, and regulatory framework
- 3.3 Inter-agency synergy potential maximised

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#### **Short Activity Summary**

The Project collaborated with relevant provincial and national organisations about project activities, participated in provincial and national workshops, and organised workshops to share lessons learned with provincial partners.

## Component Four: Effective and efficient project coordination and management

### Targeted Outputs

- 4.1 Project start up occurs in efficient and timely manner
- 4.2 Annual plans prepared in inclusive and timely manner
- 4.3 Implementation occurs in timely and effective manner

### Short Activity Summary

Annual plans developed in collaboration with partners, the Inter Provincial Steering Committee (IPSC), and PMU meetings held to review progress and strengthen coordination, monitoring and reporting on project progress, and revision of implementation strategy to better adapt it to local context and circumstances. Financial guidelines were developed and revised as necessary. Mid-term review of the Project was carried out by external consultant team. M&E was done via ongoing monitoring of activities and annual HH assessments and user surveys.

## 4. KEY OUTCOMES & ACHIEVEMENTS

Outcomes are the benefits that resulted directly or indirectly from the Project. This section looks at the extent to which the Project delivered the expected outcomes, whether any unexpected (positive and negative) outcomes resulted, and what its major achievements were.

### Expected Outcomes

**Goal:** Improved health through increased access to clean water and sanitation

Expected outcome	Outcome achieved	Evidence (by December 31, 2011) (From M&E or performance assessment framework)
% annual change in # of poor and non poor HHs in targeted villages with year round access to <u>clean water</u> compared to baseline.	Yes	Year round access to clean water <sup>2</sup> increased from 34% (3,437 HH) to 93% (15,488 HH) in targeted villages.
% annual change in # of poor and non poor HHs in targeted villages with year round access to <u>sanitation</u> compared to baseline.	Yes	Access to hygienic sanitation according to Ministry of Health (MOH) standards increased from 9% (868 HH) to 61% (10,279 HH) in targeted villages.
% annual change in # of poor and non poor HHs in targeted villages with year round access to appropriate garbage disposal compared to baseline.	Yes	Access to appropriate garbage disposal increased from 12% (1,158 HH) to 56% (9,297 HH) in targeted villages.

**Conclusion:** The Project led to a significant increase in access to clean water supply and sanitation among both poor and non-poor HHs in the target communities. By thus improving the water and sanitation situation in the target communities, the Project is likely to have had a considerable positive impact on health. While it is difficult to demonstrate changes in the prevalence and incidence in WASH related diseases based on hard data, beneficiaries reported reductions in diarrheal, eye, and dengue infections. Scientific studies have shown a clear connection between improvements in WASH and a reduction in diarrheal, worm, respiratory, and other infections.<sup>3</sup> It is similarly likely that the Project has resulted in an improved nutritional status among children in the target villages, as a recent study from Vietnam points to a close relationship between improvements in water and sanitation access and reductions in childhood malnutrition.<sup>4</sup>

<sup>2</sup> "Clean" water here refers to hygienic water according to Circular 05/2009/TT – BYT regarding *National Technical Regulations for Domestic Water Quality*.

<sup>3</sup> Fewtrell, L., Kaufmann, R. B., Kay, D., Enanoria, W., Haller, L., and Colford Jr, J. M. (2005). Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis. *The Lancet Infectious Diseases*, 5 (1), 42-52; Rabie, T., & Curtis, V. 2006. Hand washing and risk of respiratory infections. *Tropical Medicine and International Health*, 11(3), 258-67.

<sup>4</sup> UNICEF. 2010. *Study on the Correlation between Household Environmental Sanitation, Household Water Supply, Mothers' Hygiene Behaviour for Children under 5, and the Status of Child Nutrition in Vietnam*. Hanoi.

**Component One:** Water and sanitation service providers (public and private) respond to user demand and community needs for appropriate, timely, quality advice, information and service provision

Expected outcome	Outcome achieved	Evidence (by December 31, 2011) (From M&E or performance assessment framework)
% of new water and sanitation facilities operational and maintained after 6 and 12 months and at end of project.	Yes	96% of new clean water facilities and 97% of sanitation facilities are well operated and maintained. (342 cement water jars, which experienced functionality issues due to construction and O&M problems, have been repaired and are operational).
# and % of HHs (ethnicity/ wealth classification/gender) reporting greater participation in RWSS planning and decision-making processes by AP, MTR and EoP.	Yes	64% (10,792) of HHs in the target communities participated in RWSS planning and decision making process, with a significant representation of women (49%), Khmer (24%), and poor HHs (57%).
% of users reporting satisfaction with services provided associated with the construction and operation of new water and sanitation facilities.	Yes	<ul style="list-style-type: none"> <li>• 90% of users satisfied with drilled wells</li> <li>• 81% very satisfied/satisfied with cement water jar</li> <li>• 100% very satisfied with plastic water tank</li> <li>• 74% very satisfied with piped network connection</li> <li>• 94% very satisfied with septic tank latrines</li> </ul>

**Conclusion:** The Project succeeded in delivering demand responsive water and sanitation solutions to the target communities. The IVWSP process introduced by the Project ensured that only HHs with a demand for improved water and/or sanitation received support. Further, the IVWSP process built a sense of ownership among beneficiaries over the water and sanitation facilities, among other things, by involving them in the planning for improvements and construction supervision and by putting them in charge of O&M. These features also helped to ensure the quality of construction and effective use of the facilities built. As a result, the facilities built as part of the Project met the users' needs and were well operated and maintained. (See Annex B for an overview of the IVWSP process).

**Component Two: Men, women, and children in the target communities demonstrate improved hygiene and sanitation awareness, behaviour and practices**

Expected outcome	Outcome achieved	Evidence (by December 31, 2011) (From M&E or performance assessment framework)									
% change in HH subsidised and non-subsidised investment in water and sanitation facilities by HH type (ethnicity/wealth) by year.	Yes	<p><b>Increase in HH investment</b> (Note: Total increase in investment over baseline has been used here instead of year-over-year increase)</p> <table> <tr> <th></th><th>Subsidised</th><th>Non-subsidised</th></tr> <tr> <td>Water</td><td>101%</td><td>250%</td></tr> <tr> <td>Sanitation</td><td>112%</td><td>161%</td></tr> </table>		Subsidised	Non-subsidised	Water	101%	250%	Sanitation	112%	161%
	Subsidised	Non-subsidised									
Water	101%	250%									
Sanitation	112%	161%									
% positive change in hygiene and sanitation knowledge, attitudes and behaviour of target beneficiaries (ethnicity/ wealth classification/ gender /age) in target communities by MTR and EoP.	Yes	<p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• 69% of HHs know that HW with soap can prevent diarrhea (<b>Baseline:</b> 1%)</li> <li>• 37% know that using hygiene latrine can prevent waterborne diseases (<b>Baseline:</b> 2%)</li> <li>• 88% have knowledge about water borne diseases (<b>Baseline:</b> 12%)</li> </ul> <p><b>Practices:</b></p> <ul style="list-style-type: none"> <li>• 27% of HH always wash hands before eating (<b>Baseline:</b> 13%).</li> <li>• 55% of HHs always wash hands after defecation (<b>Baseline:</b> 13%).</li> <li>• 61% of HHs use hygienic latrines (<b>Baseline:</b> 9%).</li> <li>• 43% of HHs drink boiled water (<b>Baseline:</b> 15%)</li> <li>• 56% of HHs do not litter (<b>Baseline:</b> 11%)</li> </ul>									

**Conclusion:** Despite being off to a late start, Project M&E data suggest that the IEC activities under Component 2 had a very significant impact on water, sanitation, and hygiene (WASH) related knowledge and behaviours (see data above).

The high levels of knowledge built have been confirmed in interviews with members of the target villages, in which many were able to recall the hygiene and sanitation behaviours promoted by the Project. Further, HH observations confirmed that many HHs also practice these behaviours. Interviews with stakeholders and beneficiaries suggest that the changes in hygiene and sanitation knowledge and behaviours may be attributable to two main factors: i) the Project's IEC/BCC methods and messages (notably PAOT, see below) and ii) behaviour enabling solutions (e.g., a hand wash station) delivered by the Project or installed by the HH as a result of PAOT. In addition to PAOT, the following Project IEC activities may have contributed to the achievements: (i) WASH IEC activities for schools and communities, (ii) training of Department of Education to organise WASH IEC for schools, and (iii) WASH IEC events during traditional festivals.

**Component Three: Enhanced RWSS inter-agency and program coordination**

Expected outcome	Outcome achieved	Evidence (by December 31, 2011) (From M&E or performance assessment framework)
Relevant RWSS agency staff and leadership report improved coordination with key stakeholders and are able to provide concrete examples of changes in coordination systems and the results accruing from such by MTR and EoP.	Partially	<ul style="list-style-type: none"> <li>The good practices in the project have been shared with national and provincial stakeholders in workshops.</li> <li>The Project collaborated with multilateral institutions (UNICEF, World Bank) and private partners (Unilever) to strengthen BCC activities.</li> </ul>
<b>Conclusion:</b> The objective of component three was only partially achieved. While CARE overcame initial collaboration challenges between the Project and its partners, coordination and collaboration between the partners (CERWASS/CORD and WU) themselves continued to be a challenge. This appeared to be the case, in particular, in Soc Trang, where regular PMU meetings for coordination never became a fact. Further, the Project was unable to play the central role in improving RWSS dialogue in the provinces, which had been envisioned in the project design. After the MTR, the focus of this activity shifted towards collaboration with other sector stakeholders to exchange experiences, approaches, and materials. By collaborating and coordinating with Unilever, the Water and Sanitation Program (World Bank), UNICEF, and national CERWASS, among others, the Project was able to improve IEC activities and materials, in particular.		

**Component Four: Effective and efficient project coordination and management**

Expected outcome	Outcome achieved	Evidence (by December 31, 2011) (From M&E or performance assessment framework)																
Stakeholder requirements for project planning, management, monitoring, reporting and evaluation met annually	Yes	<ul style="list-style-type: none"><li>PMU meetings to revise communication work plans, budget, and project monitoring activities.</li><li>Every 6 months, PSC meets to review progress of activities and the overall planning, the budget item of the Project.</li></ul>																
% budget variation by AP	No	<p>The Project underspent against the planned budget for the duration of implementation:</p> <table><tr><th>Year</th><th>% of budget spent</th></tr><tr><td>1</td><td>71%</td></tr><tr><td>2</td><td>38%</td></tr><tr><td>3</td><td>47%</td></tr><tr><td>4</td><td>70%</td></tr><tr><td>5</td><td>73%</td></tr><tr><td>6</td><td>56%</td></tr><tr><td>NCE</td><td></td></tr></table>	Year	% of budget spent	1	71%	2	38%	3	47%	4	70%	5	73%	6	56%	NCE	
Year	% of budget spent																	
1	71%																	
2	38%																	
3	47%																	
4	70%																	
5	73%																	
6	56%																	
NCE																		
% implementation partners reporting satisfaction with project management and partnership practice by MTR and EOP.	Yes	<ul style="list-style-type: none"><li>Partner-partner and partner-project relationships were improved after the Project Implementation Strategy (PIS) was revised as a consequence of the MTR.</li><li>Partners interviewed by ACR mission expressed satisfaction with project management and their own role following the revision of the PIS.</li></ul>																
<b>Conclusion:</b> During its first two years, the Project faced serious difficulties in relation to component four and its objective. Challenges in management and collaboration with partners resulted in a delay in implementation as well as																		

disbursement. The challenges were identified in the MTR and subsequently addressed effectively by changing the Project management team and revising the PIS. Stakeholders noted that the revised PIS made implementation smoother by clarifying each partner's roles and responsibilities, removing unnecessary layers of management, and by handing over more management and implementation responsibilities to the PMU and provincial partners. Nonetheless, the Project can only be considered to have partially achieved the objective of component four. Despite the improvements, the Project has continued to have disbursement difficulties throughout (albeit to a lesser extent) and was granted an 18-month no-cost extension to be able to complete activities, as well as an additional nine month extension in Soc Trang to complete activities after the Project in the province had been suspended from June 2010 to August 2011.

In sum, the Project is highly likely to have achieved its target of improving health by increasing access to water and sanitation in the target villages. After some initial difficulties and delays, the Project performed very well in terms of building and responding to demand from target beneficiaries for improved water and sanitation. The Project led to a significant increase in water and sanitation coverage in the target communities. The water and sanitation facilities built generally meet user needs and preferences and are appropriately operated and maintained. The Project performed exceptionally well in terms of changing hygiene and sanitation knowledge and behaviours; thereby augmenting the impact on health of improved water and sanitation facility access. The Project's performance in terms improving RWSS coordination as well as in terms of management was less strong. An ambitious initial objective of leading the RWSS sector in the two provinces to better coordination was unattainable. Further, initial challenges related to management and coordination led to implementation and disbursement delays.

#### *Unexpected Outcomes*

The project had a number of positive unexpected outcomes. These unexpected positive outcomes should be considered to be among the Projects noteworthy achievements. Each unexpected outcome and the factors leading to this outcome are described in the following.

- a. Scaling up of Project IEC/BCC activities: Several of the Project's IEC/BCC activities have already been replicated by partners. They include:
  1. *Participatory Action Oriented Training (PAOT):* WU in Ca Mau and Soc Trang have scaled up PAOT<sup>5</sup> in their work across the provinces. PAOT promotes practical HH WASH improvements that families can implement on their own and within their means. PAOT ended up as the Project's main IEC approach after the Project was unable to recruit the technical expertise required to prepare a social marketing program. Interviews with stakeholders at all levels suggested that PAOT has been a highly effective method to promote HH level changes in WASH behaviour, not least because of its use of images, which show improvements made by other HHs in the area.
  2. *School WASH IEC:* The Department of Education (DoE) in both provinces have continued the school WASH promotion events developed and introduced by the Project.
  3. *WASH IEC Community Events:* The provincial CERWASS' appreciated the WASH IEC approach and activities introduced by the Project and have adopted them for use in RWSS-NTP. Where events would previously be characterized by one-way communication, CERWASS in the two provinces now organize events in greater collaboration with local partners and focus on interactive activities, where participants are introduced to W&S models and behaviour change messages and where they have a chance to practice new behaviours.
- b. Sustained promotion of Project waste management solutions: Partners have continued the promotion of some technical solutions introduced by the project, including:

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<sup>5</sup> PAOT is also referred to as WIND by some stakeholders. WIND stands for: Work Improvement in Neighborhood Development. The WIND program seeks to improve work place safety through small, doable improvements. PAOT is an off-shoot of the WIND program focused on household water and sanitation improvements.

1. Composting bins: This low-cost waste solution (app. VND 400,000 per bin) has been popular in the target villages in Ca Mau, where the soil is often saline and the composted waste can be used with benefit in vegetable cultivation. Due to this technology's popularity, the Ca Mau WU has plans to continue the promotion of the technology. The composting bin has been also recognised and has received an award as a good environmental solution by the National WU.
  2. Biogas facilities: The Project's piloting of biogas facilities received positive attention from the provincial stakeholders as well as many HHs. In interviews, HHs – though typically average or better off ones – expressed a strong interest in the technology, which they see as a sustainable solution to the management of manure accumulating from pig farming. In at least one commune in Ca Mau, the WU planned to continue promoting the Project's biogas model and to encourage WU chapters to finance these facilities via their credit and savings groups.
- c. Demand for improved water supply and sanitation beyond the target households and villages: Though not an explicit objective of the program, testimonies from commune PMUs and local masons suggested that the good quality of the Project's hardware has generated a demand for improved water and sanitation beyond the target HHs and villages. For example, in one commune the CMU reported that *"more HHs built their own latrine. If there were 100 beneficiary HHs, then there would be about from 130 to 150 HHs non-beneficiary HHs that built latrines themselves"* (IDI, CMU, Hoa Tu commune, Soc Trang). In the case of latrines, interviews in target villages suggested that the Project's activities efforts led to a fundamental shift in social norms regarding defecation practices and that HHs now preferred septic tank latrines where they had previously preferred fishpond latrines.
  - d. Improved sustainability of water supply with small scale water stations: The project piloted six community-managed small scale piped water schemes instead of individual drilled wells in villages in Ca Mau where adequate groundwater could only be found at 300 metres depth and the surface water was prone to saline intrusion. At a cost of 2.38 million VND per beneficiary HH, the schemes deliver water to HHs more cost-efficiently than individual drilled wells (with an average cost of 5 million VND/HH in Ca Mau).<sup>6</sup> The small scale piped schemes make water quality control easier and the pollution of the groundwater source less likely individual HH drilled wells. With these advantages, the small scale schemes have generated interest among local authorities, who appear keen to replicate the experience in areas where larger schemes are not feasible.
  - e. Potential integration of participatory practices in partner activities: Partners recognised the effectiveness of the Project's participatory approach (IVWSP). In several cases, they expressed an interest in replicating parts of the approach. For example, the WU in one commune in Ca Mau intends to let people discuss and identify their own needs as well as which actions to take.
  - f. Improved capacity for water quality monitoring in Ca Mau, Soc Trang, and nearby provinces: With the water quality laboratory equipment provided by the Project, Ca Mau and Soc Trang PCERWASS are in a position to monitor the quality of rural water sources with greater ease and accuracy. As the lab equipment has been installed towards the end of the project, however, it is not yet possible to assess the extent to which Ca Mau and Soc Trang CERWASS will take advantage of this capacity.

### **Main Lessons Learned**

1. The impressive changes in WASH-related knowledge and behaviours brought about by the Project may be attributable to two main factors: i) the Project's IEC/BCC methods and messages (notably PAOT) and ii) the focus on behaviour enabling solutions (e.g. a HW device).

<sup>6</sup> 204 households were served by six small scale piped water schemes in Ca Mau at a total cost 486 million VND (including contributions). It should be noted that the 5 million VND/HH drilled well is for wells of less than 120 metres depth. For deeper wells, the cost of construction will be even higher (40,000/VND per additional meter depth).



2. The small scale water supply stations piloted in the Project present a cost-efficient and sustainable model for water supply delivery for remote communities where groundwater extraction is feasible.

## 5. EXPECTED LONG-TERM BENEFITS AND SUSTAINABILITY

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Sustainability concerns the likelihood that project benefits will endure and the possibility that additional benefits will accrue. The lasting and long term impact of the project will depend on (i) the functionality of the water and sanitation hardware provided and (ii) the willingness and human and financial capacity of provincial partners to continue and/or scale up the project's approaches/strategies.

### 5.1 *Sustainability of Water and Sanitation Facilities & Demand*

The outlook for the sustainability of the HH water and sanitation facilities constructed under the project is good. The intensive involvement of beneficiaries in hardware selection, construction, and monitoring via the IVWSP process ensured that the water supply options and latrines built fit user needs and preferences. As some beneficiaries noted, the requirement that HHs contribute to the facilities also contributed to sustainability: *"The HHs had to participate [in O&M training], because if they paid some money, they'd take better care of their facilities"* (FGD, women beneficiaries, Vinh A village, Soc Trang). In interviews and from HH observations, it was evident that beneficiary HHs feel a strong sense of ownership over their facilities and, with few exceptions, use them and keep them in good repair. Monitoring data show that between 74% and 100% of users were satisfied with their water supply and/or sanitation facilities.

Problems were identified during the Project, which could have potentially resulted in poor functionality of a significant number of cement water jars. The problems resulted from substandard RWSS service provider skills and improper O&M practices. The Project effectively addressed the problems by placing a greater emphasis on provider skills in contracting, strengthening O&M training, and by repairing the affected facilities. The Project actions ensured the continued sustainability of the affected facilities and that of those built after the issues were discovered.

The outlook for the small scale community water supply facilities is similarly good. Over one year after completion, the facilities and the WUG established to manage them function well. The monthly fees collected by the WUGs will enable them to deal with smaller repairs. Long-term sustainability may be reduced by two factors: (i) the current fee level (3,000 VND/m<sup>3</sup>) does not allow WUGs to deal with larger repairs and (ii) water quality monitoring arrangements are not yet in place. For this reason, it is critical that the WUGs receive technical and, if needed, financial support from Ca Mau CERWASS.<sup>7</sup>

Working in close collaboration provincial CERWASS may, furthermore, have helped the Project ensure the sustainability of the small scale piped water supply model over the longer term. In interviews, the director of the agency in Ca Mau expressed a strong interest in the model as both a financially and environmentally more sustainable alternative to individual drilled HH wells. There is thus a good likelihood that the small scale piped water supply model will be replicated in GOV RWSS programming. In terms of models, which will continue to be promoted, it should also be noted that the WU in Ca Mau will continue to promote the composting bins, which were introduced via the Project.

Another benefit of the Project, which is likely to be sustained and generate additional benefits over the longer term, is the increased demand for water and, in particular, sanitation generated in and beyond the target villages. Interviews with partners and beneficiaries suggested that demand for improved water and sanitation in some cases has spread to nearby villages and communes. The Project's strategy of contracting and training local masons has made it possible for HHs in nearby areas to have their demand met. In some communities, masons reported that they were now building latrines for HHs in non-project

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<sup>7</sup> The inability to obtain technical advice and financial support in case larger repairs are needed often lead to the failure of community managed water schemes in Vietnam. However, in the context of the small scale schemes in Ca Mau, the low cost of building the scheme makes failure due to lack of financial capacity unlikely. A lack of qualified technical support is more likely to pose a threat to the schemes' functionality.

areas, such as in Cai Nuoc district, Ca Mau, where masons reported that they now build three to four latrines per month instead of four to five per year as previously.

Some challenges to the sustainability of Project benefits also exist:

- Limited ground water supply: Due to changes in the environment and increased extraction of groundwater resource from individual wells, some HHs which received support from the Project for drilled wells or water connections no longer have access to a stable supply of water. These HHs may face a challenging water situation in the future.
- Safe removal and treatment of septage: Safe, sustainable septage removal and treatment is a looming problem in rural Vietnam, as a still greater number of HHs own septic tank latrines and will need septage removal and treatment services when these need to be emptied. Awareness that septic tank latrines need to be emptied every 5-10 years and knowledge of how to safely and sustainably manage the sludge varied among Project beneficiaries and RWSS service providers. In at least one case, a HH had already emptied its septic tank and had needed to remove and dispose of the feces on its own. Due to the absence of septage removal and treatment services in rural areas, many Project HHs will one day face similar difficulties in removing and disposing of septage in a safe, sustainable manner.
- Affordability of Project latrines for the poor: The main challenge to long-term expansion of the Project's benefits among poor HHs is the cost of the latrine facilities. The poor are unlikely to be able to afford to pay out of pocket for the semi-septic and septic tank latrines introduced by the Project, which cost a minimum of 3 million VND (app. USD 145) per facility. While some poor HHs may be able to finance a latrine at this cost with a water and sanitation loan from Vietnam's Bank for Social Policy<sup>8</sup>, the poorest of the poor are often excluded from accessing these loans. Additionally, only a limited number of loans are available each year and demand for these loans tends to outstrip supply. Further, the subsidies for latrines within RWSS-NTP and GOV poverty reduction programs (typically, 1 million VND/HH) are too low to enable the poor to finance the facility.

### ***5.2 Sustainability of Community Mobilisation and IEC/BCC Approaches***

The sustainability prospects differ greatly for the Project's main software approaches, the IVWSP process and Participatory Action Oriented Training (PAOT). While the IVWSP process is unlikely to be replicated by project partners in its entirety, PAOT has already been mainstreamed into their activities.

In interviews with the ACR mission team, partners and beneficiaries displayed a good understanding and appreciation for the IVWSP approach. Provincial CERWASS in both provinces recognised that the IVWSP process is more effective than the top down approach typically used in GOV RWSS programming. Despite the positive feedback, partners felt that this participatory approach is unlikely to be sustained and replicated, because it does not fit the top down planning found in GOV programs, including the RWSS-NTP. Vietnam's top down planning system, where final decisions on budget allocations are made at central level and communicated at short notice to provincial implementers (i.e., where there is little correlation between demand and response) leaves little scope for truly participatory planning.<sup>9</sup> Though the IVWSP process as a whole is not 'replicable' within the GOV system, some components of the six-step process may lend themselves to replication and could work to strengthen the results of Ca Mau's and Soc Trang's RWSS-NTPs. These components include community mobilisation/IEC, technology selection, supervision of construction by users, and O&M by users. CARE could consider

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<sup>8</sup> The GOV provides access for rural households to loans for water supply and sanitation facilities via Decision No. 62/2004/QĐ-TTg, of the Prime Minister, on approval of the Credit for National Strategy on Clean Water Supply and Rural Environment Sanitation, dated April 16, 2004. Under Decision 62, poor and non-poor rural households can borrow up to 8 million VND for water and sanitation (max. 4 million per facility).

<sup>9</sup> In previous attempt to introduce participatory planning in the RWSS-NTP, the communities involved were left disappointed and disaffected when they after a lengthy planning process did not receive funds to realise their plans.

working with its provincial partners to identify how IVWSP components realistically could be integrated into RWSS-NTP activities and, as such, strengthen the demand responsiveness of the program.

In the case of PAOT, the sustainability of the results achieved with the approach and the sustainability of the approach itself look highly promising. In terms of sustaining results, target village members were able to recall the Project's main behaviour change messages even several months after activities had ended (in Ca Mau). Further, observations confirmed that HHs had made many of the WASH improvements promoted in PAOT and that they continued making new improvements. Research suggests that hygiene and sanitation behaviours, once established, tend to be sustained over the longer term.<sup>10</sup>

In terms of sustaining the approach, the Ca Mau Women's Union has integrated PAOT into its ongoing work and has scaled up PAOT activities to all districts. In Soc Trang, 22 New Rural Development<sup>11</sup> communes have been trained by the WU in the approach. It is the first example known to the ACR mission team of an RWSS IEC/BCC approach introduced via an NGO project, which has subsequently been taken to scale by GOV partners. Project partners at province, district, and commune level expressed enthusiasm for the approach and pointed to several factors, which made it relevant for scaling up:

- PAOT fits well with existing WU priorities and programs, specifically its '3 clean's and 5 don'ts' program. PAOT was a helpful tool to reach the targets of this program.
- PAOT fits with the capacity of the WU village network (but must be combined with WASH training)
- PAOT is a low-cost approach and, as such, feasible to implement within a GOV budget.

As noted, it is rare to see the IEC/BCC approaches and activities utilised by NGO projects sustained beyond the lifetime of the project and it is even rarer to see them taken to scale. **Therefore, in particular, the Ca Mau WU's adoption and scaling up of the PAOT approach to all districts should be seen an outstanding achievement of the Project and certainly one which is deserving of national attention.**

### *5.3 Partner Commitments Required for Sustainability*

With the RWSS-NTP, Ca Mau and Soc Trang provinces have available a program and budget which will allow them to continue some of the successful activities of the Project. What specifically would be required from the provinces to sustain and expand the results from this activity include:

- Increased budget allocations for IEC/BCC in RWSS-NTP: IEC has been a low priority within RWSS-NTP and budget allocations for IEC activities have been correspondingly low. However, all stakeholders interviewed acknowledged the IEC was critical to the Project's achievements. By setting aside at least 1 billion VND of RWSS-NTP budget per year, Ca Mau and Soc Trang could continue the IEC activities in 100 rural villages each year in each province.<sup>12</sup>
- Budget and plan for effective use of water quality monitoring lab equipment, hereunder for Project schemes: To ensure the effective usage of the new water quality monitoring lab equipment, CERWASS must have in place a long-term plan for water quality monitoring, covering capacity building for lab technicians and work plan. Sufficient budget must be set aside to fund the plan's activities; however, some revenue could be generated from providing water quality testing services. The regular monitoring of water at the six Project-provided small scale piped water schemes should be a component of this plan. CERWASS should also commit to test on demand the water from individual drilled wells provided by the Project.

<sup>10</sup> Cairncross, S., Shordt, K., Zacharia, S., & Govindan, B.K. (2005). What causes sustainable changes in hygiene behaviour? A cross-sectional study from Kerala, India. *Social Science and Medicine*, 61 (10), 2212-2220.

<sup>11</sup> The New Rural Development program is an umbrella target program for all rural communes.

<sup>12</sup> The approximate cost of IEC per village under the Project was 14.6 million VND per village per year, including materials development, training, consultancies, and motivator allowances. With a cost cutting strategy, it is estimated that the provinces/WU could implement the activities for 10 million VND per village per year.

- Policies and budget to allow for the continued existence VWSCs: RWSS-NTP stakeholders in the two provinces should consider supporting the continued existence of the VWSCs on a pilot basis. The VWSCs were seen by stakeholders as having played a critical role in paving the way for improved RWSS and ensuring their sustainability. These community groups could play a crucial role in supporting RWSS sustainability in RWSS-NTP3.
- Septage removal and treatment services: In the next 3-10 years, many project beneficiary HHs and other rural HHs in Ca Mau and Soc Trang will need to have their septic tanks emptied of septage. Ca Mau and Soc Trang RWSS-NTP stakeholders would do well to consider solutions to this potential problem in the near future, including the establishment of septage removal services for rural areas and low-cost relatively safe treatment options. Septage removal and disposal is often seen as being a problem relevant to urban areas only. However, it is important to remember that more than 70% of Vietnam's population still live in rural areas and, as such, generate the largest amounts of septage.
- Formal CERWASS commitment to provide technical assistance to small scale schemes: Ca Mau PCERWASS should make a formal commitment to give technical assistance to the small scale water schemes. The WUGs should be informed of this support and given contact information.
- Policy on HH well drilling: To prevent further ground water depletion and contamination, the provinces would be well advised to establish and enforce policies on well drilling and usage, e.g. usage of own wells for HHs with piped water scheme connection or sealing of unused and/or broken wells. If uncontrolled HH well drilling and usage continues, there is a high risk that considerably less water resources will be available to existing wells and piped water schemes.
- RWSS-NTP budget allocations to ensure piped scheme functionality: Soc Trang DARD/CERWASS should set aside funds to ensure proper O&M of the RWSS-NTP funded piped water schemes, to which 904 HHs connected with support from the Project. Over time, however, CERWASS should aim to collect sufficient fees to allow for O&M.

### **Main Lessons Learned**

3. The Project's participatory IVWSP approach overall worked well to ensure that beneficiaries built water and sanitation facilities, which fit their needs and preferences, and that the facilities were later appropriately operated and maintained.
4. Though challenging, a closer collaboration with provincial GOV partners than most NGO projects resulted in significantly greater impact and sustainability for the Project's approaches and outcomes.
5. The problems faced by the Project in terms of the functionality of a number of cement water jars could have been avoided by placing a greater emphasis on provider skills in contracting, further training of providers, and O&M training for HHs from the outset.
6. By contracting and training local masons, the Project has been able to ensure that RWSS construction services are available to meet demands of HHs in and near the target villages even beyond the lifetime of the Project.
7. The price of the Project's latrine models and a lack of financing options may make it difficult for poor and near poor HHs to continue building these when the Project support ends.
8. HHs may be faced with challenges when they need to remove septage from their septic tank latrines every 5-10 years to ensure their continued hygienic functioning. As in most other rural areas of Vietnam, septage removal and treatment services are not available in the Project areas. For this reason, HHs are likely to end up handling and disposing of the septage by themselves and, as such, there is a risk that not all septage will be handled and disposed of safely.

9. The bottom up IVWSP process is unlikely to be sustained and replicated in its entirety in GOV programs (including RWSS-NTP), because it does not fit the top down planning of the GOV system. However, some components of the IVWSP process may lend themselves to replication.
10. PAOT appeared to have been more effective than most approaches at communicating WASH behaviour change messages to its target audience. Recall of behaviour change messages was high among beneficiaries.
11. PAOT has potential for larger scale replication. It is the first example known to the ACR mission team of an RWSS IEC/BCC approach introduced via an NGO project, which has subsequently been taken to scale by GOV partners.

## OVERALL ASSESSMENT

### 6. RELEVANCE

Relevance is concerned with the alignment of Project objectives with the priorities of the GOV and AusAID, and the extent to which these objectives addressed local needs (and the extent to which solutions took into consideration the local context). The relevance of the Project was assessed to be high along each of these dimensions.

#### 6.1 Alignment with AusAID's Country Strategy

The Project was well aligned with AusAID's Vietnam Australia Development Cooperation Strategy at the time of design (2004). AusAID's 2003-2007 Country Strategy identified as one of its major strategic objectives the development of "improved productivity and links to markets for the rural poor in the Mekong Delta and Central Coast." The Project supported the attainment of this strategic objective by seeking to bring about "improved health through increased access to water and sanitation" (intermediate objective 2.3.1) in Ca Mau and Soc Trang, two Mekong Delta provinces.

#### 6.2 Alignment with GOV Priorities and Policies

In focusing on rural water supply and sanitation, the Project was well aligned with Vietnam's national development priorities. RWSS has been the focus of one of Vietnam's national target programs since 2000.<sup>13</sup> The project's implementation duration coincided with the second phase of the RWSS National Target Program Phase II (RWSS-NTP2, 2006-2010<sup>14</sup>) as well as with the program's objective to improve the "living conditions of rural people [...] by improving rural water supply and sanitation." Specifically, the Project supported Ca Mau and Soc Trang provinces in their efforts to reach two of the three targets set for 2010 by the GOV for the second phase of the RWSS-NTP, including: (a) 85% of the rural population use clean water with 60 litres/capita/day and (b) 70% of rural HHs have hygienic latrines according to MOH standards.<sup>15</sup> Neither Ca Mau nor Soc Trang was on track to reach the RWSS-NTP2 targets by the end of 2010 (Table 1). It is likely that the Project has made a considerable contribution to whatever progress was made in the two provinces towards the targets, in particular as regards HH sanitation, and that coverage rates would have been lower in the absence of the project.

**Table 1: Access to water and sanitation in rural areas, 2010**

RWSS-NTP Indicator	Ca Mau*	Soc Trang*	Project areas
Rate of hygienic water (%)	88.14	84.06	93
Rate of clean water i.e. QC 02 (%)	36.42	24.57	---
Rate of HH latrines (%)	17.51	28.31	61

Source: National CERWASS, 2011

<sup>13</sup> The number of national target programs increased from seven, when the project was designed in 2004, to 15 in 2011.

<sup>14</sup> Due to a delay in formulating and approving phase 3 of the program, RWSS-NTP2 was extended to 2011.

<sup>15</sup> Decision No. 08/2005/QĐ-BYT of the Ministry of Health, Regarding Issuing the Sector Standards: Hygiene Standards for Various Types of Latrines, dated March 11, 2005. (The standards have been revised in 2011).

The Project – with its use of the IVWSP approach – was also aligned with the demand responsive approach<sup>16</sup>, which Vietnam's RWSS Strategy to 2020 identifies as the guiding principle of RWSS programming. In contrast, the application of the demand responsiveness principle has been extremely limited in practice within the RWSS-NTP. The Project may, thus, be considered as a good example of the application of the national RWSS Strategy's demand responsiveness principle.

In line with national RWSS policy, the Project provided support for poor rural HHs to improve their water and sanitation access. In terms of its subsidy policies, the Project differed in two respects from national policy. First, in the case of sanitation the Project's level of support (2.7 million VND and above) was above that usually provided by GOV programs (1 million VND). This higher level of support allowed the project to promote higher cost sanitation technologies (semi-septic and septic tank latrines). Second, the Project extended support to near poor as well as poor HHs.

### **6.3 *Relevance to the Local Situation and Needs***

The project effectively responded to a number of relevant local RWSS needs and challenges, which were identified via careful analyses of the local RWSS and development context during the project design and start up phases. The relevant needs and challenges addressed by the project included:

- 1) A high incidence of WASH related diseases: WASH related diseases, such as diarrhea, dengue, and reproductive and urinary tract infections, were found to be common in the project areas. Further, knowledge and awareness of WASH related diseases were low.
- 2) Inadequate access to drinking quality water: A majority of project area HHs did not have access to an adequate quantity and quality of water to meet their daily needs prior to the project. Only 34% of HHs in the project areas had year-round access to clean water in 2006. Water quality monitoring by GOV agencies was found to be inadequate. Finally, unsafe water storage and handling practices in the home compounded the situation by resulting in contamination of water at point of use.
- 3) Inadequate access to hygienic HH sanitation: Prior to the Project, only 9% of area HHs had access to hygienic HH latrines. A majority of HHs defecated directly into water bodies, using toilets situated directly over fishponds and rivers, or in the open on near communities and in fields. These practices placed the target villages and communities downstream at high risk of WASH related illnesses.
- 4) Inadequate hygiene and sanitation behaviours: Project preparation and baseline research also identified poor hygiene and sanitation practices in the target villages as risk factors for WASH-related disease.
- 5) Lower levels of RWSS access among the poor and ethnic minority groups: Research in the project design phase showed that poor and ethnic minority HHs had lower levels of access to clean water and hygienic sanitation than other population groups. As such, there was a sound basis for Project's specific focus on facilitating access to improved RWSs for these groups.
- 6) Absence of RWSS demand responsiveness: The national GOV RWSS Strategy to 2015 calls for demand responsiveness in RWSS programming. A review of PCERWASS RWSS programming in practices in Soc Trang and Ca Mau indicated that they were target rather than demand driven. Villagers (particularly the poor) were neither consulted nor effectively targeted in RWSS planning design, construction, operation, maintenance and evaluation. As a result, RWSS hardware frequently did not match the needs and preferences of target beneficiaries and ended up underutilised.

### **6.4 *Relevance of Software and Hardware Solutions to the Local Context***

The Project worked with provincial partners in Ca Mau and Soc Trang to identify software (IEC/BCC) and hardware solutions, which were suitable to the local context.

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<sup>16</sup> Users decide on the type and level of RWSS service and operate and manage these facilities.

In terms of software solutions, the Project's main behaviour change approach, PAOT, was adapted to the local context by identifying 18 locally relevant WASH improvements to promote and using photos of local, low-cost versions of these improvements (Figure 1). Interviews suggested that adaptations made community members feel that the improvements and solutions promoted via PAOT were relevant and feasible. This, in turn, made them more likely to make similar improvements in their household.

The Project ensured that RWSS hardware options were suitable to the local context by piloting and adapting various models. An overview of the hardware options promoted and how each was relevant to the local context can be found in Annex D.

### Main Lessons Learned

12. The Project likely made a major contribution to whatever progress was made in the Ca Mau and Soc Trang provinces towards the achievement of the RWSS-NTP targets, in particular as regards sanitation, and that coverage rates would have been considerably lower in the absence of the project.
13. The Project was well aligned with the demand responsiveness principle of Vietnam's RWSS Strategy to 2020. The application of the principle has been extremely limited in practice within the RWSS-NTP and the Project could, thus, be considered as a good example of its application.



Figure 1 PAOT improvement checklist in beneficiary HH, Ca Mau

## 7. APPROPRIATENESS OF OBJECTIVES AND DESIGN

Appropriateness is concerned with the extent to which the objectives and design of the Project were realistic and feasible given the local context. It also concerns whether risks had been adequately identified in the design and were effectively managed.

### 7.1 Appropriateness of Project Objectives

A clear set of four main project objectives – each associated with a major project component – were intended to support the project's goal of improving health through increased access to water and sanitation. (Please see section 1.2 for the objectives for each component).

The objectives of components 1, 2, and 4 can be considered to have been both realistic and feasible, given the project's ability to achieve them (see section 4).<sup>17</sup> However, it was clear already by the MTR in 2007 that component objective 3 – to improve RWSS inter-agency and program coordination – was not feasible due to a lack of agreement and buy-in among the project partners. As noted in the MTR there was “a high degree of ambivalence and differences of opinion amongst partners as to whether this component is necessary at all.”<sup>18</sup> Following the MTR, suspension of this component and its objective was considered; however, a decision was made to keep the component with a less ambitious objective – coordination among partners – in mind. Interviews with Project management and provincial partners during the ACR mission suggested that coordination problems had persisted throughout the project. It can be debated whether the improvement of inter-agency and program coordination was a realistic and suitable objective

<sup>17</sup> In the case of component 4, challenges were seen.

<sup>18</sup> Wyatt, A. B., Quan L. T., & L. Dokter. 2007. Options and Ownership: Water and Sanitation for the Rural Poor in the Mekong Delta – Mid-Term Review. October 2007. Report prepared for CARE International in Vietnam.

for an INGO project or whether it would not have been more appropriate in the Vietnamese context to have partners lead this process.

### *7.2 Appropriateness of Project Design*

This sub-section considers strengths and weaknesses of the project design, specifically looking at the extent to which the design was appropriate to achieving the project goal and objectives. Strengths and weaknesses of the project design are discussed below.

#### Strengths

- a. The project was designed based on an eight-month pilot in four villages in Ca Mau and Soc Trang. The experience gained by CARE and partners in the pilot as well as an independent evaluation of the pilot informed the development of the project design. The detailed knowledge of the community level opportunities and challenges allowed CARE to come up with a sound project design, in particular as regards village based demand responsive planning (component 1).
- b. The project management and implementation setup meant that CARE and provincial partners would work closely together to manage and implement the Project in the target communes and villages. This was an unusual setup, given that INGOs in Vietnam traditionally have engaged at the commune and village levels. By requiring the close involvement of provincial partners, however, the project was better designed to ensure the sustainability of its approaches and outcomes. On the flip side, the setup was bound to pose a significant challenge to Project implementation given that both CARE and the provincial partners had limited experience with the each other *modus operandi*. In interviews, stakeholders acknowledged that getting used to each other's ways of working and financial management procedures was a challenge initially.
- c. In the case of project component 1, in particular, the project design led to the development of capacity, community structures, processes, and funding mechanisms which enabled demand responsive RWSS delivery in the target villages.
- d. The strategy to implement project activities in a few villages in a relatively large number of communes (eight) and districts (four) in each province has resulted in the scaling up of good project features. Among other things, HH demand for the water and sanitation technologies promoted by the Project has been created in nearby villages and communes. Further, with the capacity built via the Project, province, district, and commune level partners have scaled up the use of some of its approaches (PAOT) beyond the target areas.

#### Weaknesses

- a. While the strategy to focus on three villages in each of the 16 target communes was effective in leading to the 'diffusion of demand' for improved water and sanitation to nearby areas, the decision to focus on only 48 villages placed a limit on how many poor HHs could benefit from Project support. Among the 16,602 HHs in the target villages, a total of 10,268 were poor and near poor. The Project had aimed to reach 12,750 poor HHs. However, this was not feasible due to the limited geographic and demographic scope. The Project eventually reached a total of 9,155 poor and near poor HHs. Due to the delay in delivering support to HHs in the first two years of the Project, this limitation came to the attention of stakeholders at a point when a strategy change was too late.
- b. Though the project design was detailed, CARE staff and partners found that it was not practical enough to enable them to proceed immediately with implementation. This situation may have been one of the reasons for the slow progress seen in the first two years of the project. To address the situation, CARE and partners in late 2007 prepared a revised PIS as an addendum to the project document, which set more specific targets for project components 1, 2, and 3, and identified a number



of *tactics* (means) for how to reach each target. Partners and CARE staff noted that the PIS had enabled them to move forward in their work with greater clarity and efficiency.

- c. Project partners found the initial design of the project management structure was overly complicated and added to the slow implementation. In the MTR, partners thus suggested deleting some committees.<sup>19</sup> As a consequence, the Project deleted two layers of management, i.e., the district project steering committee and the central project management unit in each province, each of which represented little added value to the project. The revised project management structure appeared to have helped speed up implementation.
- d. The Project's initial IEC/BCC design may have been overly ambitious in terms of its technical sophistication and could not be realised due to the unavailability of qualified technical assistance. It should be considered a significant weakness in the project design that the realisation of its IEC/BCC approach hinged on the availability and willingness of fellow INGO, International Development Enterprises, to provide support. When the INGO was unable to provide support (and CARE was unable to find an alternative TA provider with adequate expertise) a serious delay in the start up of IEC activities resulted. In interviews, partners voiced the opinion that the early absence of IEC had prevented the Project from reaching its full potential (in terms of demand creation).
- e. In the case of component three, the Project strategy and planned outputs did not build on an adequate assessment of the Vietnamese institutional and policy making context and the role and leverage of INGO projects within it. Specifically, the Project's focus on setting up provincial RWSS Working Groups to influence and improve RWSS policy was very optimistic. To be sustainable and influential, the initiative for improved RWSS coordination and policies should come from the most 'senior' Project partner.<sup>20</sup> A more flexible approach to influencing policy – e.g., by capacity building and sharing good practices – may have brought about better results for the Project.
- f. The project design paid limited attention to gathering and sharing the Project's good practices and lessons learned and to using this information for strategic purposes. As a result, the Project's very successful elements are known to few in the RWSS sector beyond CARE and its partner agencies. This is a great opportunity lost for both CARE and the RWSS sector in Vietnam. A dedicated documentation, dissemination, and advocacy project component could have helped the Project to strategically influence central sector stakeholders, policies, and practices.
- g. A relatively high level of subsidy (70-90%) was provided for Project-supported RWSS facilities, with few exceptions. An early assessment of HH willingness-to-pay for water and sanitation facilities could have allowed the Project to better determine whether its subsidy levels were appropriate. Having access to credit for RWSS facilities might also have helped HHs contribute a greater proportion of the cost by allowing them to pay the contribution over time and, hence, eliminating the obstacle of having to come up with one large payment

### ***7.3 Efficiency and Resourcing***

The Project experienced a one-year delay in Ca Mau and a two-year delay in Soc Trang. As such, it was not able to deliver the proposed project outcomes within the agreed time frame. The delay was partially attributable to the difficulties faced by the Project during its first two years. The additional delay in Soc Trang was caused by governance issues, which led to a one year suspension of Project activities in the province.

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<sup>19</sup> Wyatt, A. B., Quan L. T., & L. Dokter. 2007. Options and Ownership: Water and Sanitation for the Rural Poor in the Mekong Delta – Midterm Review. October 2007, Report prepared for Care International.

<sup>20</sup> The Department of Agriculture and Rural Development (to which CERWASS reports) would have been an appropriate agency to assume this role.

The Project reached fewer poor HHs than targeted, but appears to have been able to bring about a greater amount of water and sanitation improvements than targeted in the Project Design Document (PDD). According to the PDD, the Project sought to bring an estimated 12,750 poor HHs to invest in improved water and sanitation. While only 9,155 poor HHs were reached, the Project did results in approximately 13,715<sup>21</sup> investments in hygienic latrines and clean water as well as an additional 1,367 investments in improved waste facilities among poor and non poor HHs. In addition, the Project provided a number of public water and sanitation facilities as well as a water quality testing lab for each province. As such, the level of resources can be considered to have been adequate to reach the intended target.

At the same time, an analysis of total project expenditures per facility investment raises the question if the Project could have had more ambitious water and sanitation access targets. As seen in Table 2, when only investments in water and sanitation are considered Project expenditures per investment made equaled USD 347.40 (USD 315.91 when also investments in waste disposal facilities<sup>22</sup> were considered)<sup>23</sup>, while the mean cost of the facilities was USD 101 for clean water and USD 158 for latrines.

**Table 2: Cost of facilities vs. Project expenditures per facility**

	Average actual facility cost (USD)*	App. Project expenditure per facility (USD)**	
		HH clean water, hygienic latrines***	All improvements
Water access	101	347.40	315.91
Latrine access	158		
Waste facility	36		

\* Cost takes into consideration project subsidy and user contribution; \*\*AUD to USD exchange rate for Jan. 1, 2010 used (1 AUD = 1.02025 USD); \*\*\* Includes 8,165 facilities built with Project support and 5,550 latrines built by HHs.

As noted in section 7.2, the Project design, which limited water and sanitation promotion and support to 24 villages in each province, may also have worked to limit the efficiency of the Project investment. The 48 target villages had a total of just 16,602 HHs (2012) and, as such, set a natural limit to the 'market' for improved water and sanitation. Scaling out to a greater number of villages (e.g. 3-4 additional villages) in each commune in Phase II could have been a more efficient and effective strategy to increase the impact of the Project both in terms of water and sanitation facility investments and in terms of behaviour change. This would have enabled the Project to take advantage of the existing commune capacity built and to reach a greater number of HHs with support (if poor) and promotion.

In considering the efficiency of resource use, it is important to note that efficient Project management from 2008 onwards resulted in significant savings on several project budget lines – including in-country personnel, district and provincial operations, and vehicle operation.<sup>24</sup> The budget saved was invested into improved water quality monitoring (USD 95,000 for lab equipment), additional community support (USD 241,000) and IEC. . However, the Project's serious initial management and coordination challenges and lengthy procedures to change annual work plans combined to make it impossible to redirect the funds to new villages and, thus, expand the reach of the Project.

<sup>21</sup> Project monitoring data show that HHs invested in 8,165 clean water and/or a hygienic latrine improvements with Project support. During the Project period, an additional 5,550 investments were made in hygienic latrines and 8,583 investments were made in clean water without support.<sup>21</sup> The Project likely played a key role in influencing HHs to invest even without support in the case of latrines, but not in the case clean water. Interviews with villagers and latrine masons suggest that many HHs decided to invest in sanitation, when the ownership and use of hygienic latrines became more common via Project support. In the case of clean water, demand was high already at Project start and many HHs gained access via RWSS-NTP piped water schemes.

<sup>22</sup> It should be noted that 41 biogas facilities supported cost between 8 and 15 million VND each.

<sup>23</sup> Approximately USD 100,000 was spent on public WASH facilities and water quality monitoring equipment. If this amount is deducted, the Project expenditure per HH water and latrine investment is USD 340.11.

<sup>24</sup> As of December 30, 2011, 77% of the in-country personnel, 61% of the district and provincial operations, and 47% of the vehicle operations budget had been disbursed.

#### ***7.4 Identification and Management of Risks***

The Project was moderately successful in identifying risks at the design stage. Among the risks identified, however, four turned out to be relevant, including:

1. Poor and otherwise vulnerable HHs have other, more urgent, commitments, e.g. food production
2. No understanding of the need for improved coordination among Provincial People Committee (PPC) and relevant provincial agencies
3. Turnover of project and counterpart staff
4. Exchange rate loss or gain

Among these risks, the Project addressed the first by allowing poor HHs with difficulty in making cash contributions to contribute labour or materials instead. The Project was able to mitigate the second risk to some extent by having the support of the PPC. In the case of risk number three, it turned out to be beyond the Project's capacity to mitigate. In the case of the exchange rate appreciation, the Project's planned strategy was sound (i.e. budgeting by using the average AUD/USD exchange rate for the past five year). However the AUD appreciated by an unprecedented 36% against the USD from 2005 to 2011.<sup>25</sup>

CARE, however, did not in the design stage identify three risks which led to the near closure of the Project in mid 2007. These included i) management and communication difficulties, possibly owing to the expat Team Leader being new and unfamiliar with Vietnam, ii) coordination and collaboration difficulties among provincial partners, and iii) the unavailability of required (social marketing) expertise in the Vietnamese TA market. Despite not having identified these risks in the design stage, the Project was able to deal well with i) and ii), which were challenges which lay within its sphere of influence.

#### **Main Lessons Learned**

14. The Project's objective of improving RWSS inter-agency and program coordination was not feasible due to a lack of agreement and buy-in among the project partners. In hindsight, it can be debated if improving inter-agency and program coordination was a realistic and suitable objective for a project led by an NGO or if it would not have been more appropriate to have partners lead this process.
15. Implementing project activities in a few villages in a relatively large number of communes (eight) and districts (four) in each province was an effective strategy to encourage the scale up of good practices.
16. However, the limited number of HHs in the 48 villages (16,602 in 2011) may have constrained the performance of the Project and kept it from realising its full potential in terms of RWSS demand creation and delivery to the poor and near poor. With capacity already built in the communes, more HHs could have been reached at little additional cost.
17. Revising the PIS in collaboration with Project partners was a good method to address the issue of a Project document which did not provide enough guidance for implementation. The PIS worked well to create a shared understanding of goals, targets, and stakeholder roles and responsibilities; thus allowing the Project to move forward more efficiently.
18. A complex Project management structure – with five management levels - constituted a challenge to implementation progress initially. The removal of two levels of management made implementation progress considerably smoother.
19. The Project design's reliance on support from a fellow INGO for the realisation of the BCC approach (social marketing) was a significant weakness. The failure of this INGO to provide support and CARE's subsequent inability to find qualified TA led to a long delay in the start up of BCC activities.
20. The project design paid limited attention to documenting and sharing the Project's good practices and lessons learned. As a result, the Project's very successful elements are known to few in the RWSS sector beyond CARE and its partner agencies.

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<sup>25</sup> Where AUD 1.00 bought USD 0.754 in October 2005, it bought 1.024 in September 2011.

## 8. IMPLEMENTATION ISSUES

This section focuses on the most significant issues, which affected project implementation, and the steps taken by CARE and its partners to address and overcome these issues where possible.

### 8.1 Contextual Issues Affecting Implementation

#### a. Low demand for hygienic latrines

Demand for the use and ownership of hygienic latrines was very low in some target villages at the outset of the Project, among other things owing to two main factors:

- i. A majority of HHs in the area utilised fishpond and river latrines for defecation and considered these to be adequate and sufficiently hygienic (KAP, 2006). Additionally, HHs considered fishpond latrines as being of economic value, since the fish raised would be used for consumption or for selling.
- ii. In some areas, latrines built with support from earlier programs (e.g., P134) were found to have been of a sub-standard quality. As the recipient of a Program 134 latrine explained: *“It is broken. When it rains, the latrine is flooded, when it’s sunny, the latrine smells”* (FGD, women, Hoa Dong commune, Soc Trang).

These factors combined to make some HHs reluctant to register for and contribute to a latrine. As of Year 3, only nine HH latrines had been built with Project support. The Project was eventually able to build a strong demand for latrines via a combination of IEC activities and the provision of good quality latrines. As noted by one commune PMU member, many HHs were persuaded to build latrines, when they saw the latrines built by their neighbours and felt assured that the latrines were of a good quality:

*“For the latrine, at first it was not easy to mobilise people, because they were used to fish pond latrine for a long time. They built it to provide food for fish also. But later on, we built some pilot latrines, they felt that the latrine was good, for example I built a latrine, and my family had a party, they came and saw the latrine and tried it and thought it was good, then many HHs signed up.”* (IDI, PMU, Hoa Tu 1 commune)

Project IEC also appeared to have raised community members’ awareness of disease transmission via unhygienic defecation practices. As a result, HHs no longer wanted to purchase fish raised on the faeces from a fishpond latrine. As explained by one FGD member: *“The fish are not sanitary, safe, cannot sell, so everyone stopped it [using fishpond latrines]”* (FGD with men, Nguyen Phic village, Ca Mau).

The late introduction of IEC and the very limited construction of latrines until 2008 likely meant that the Project was not as effective at creating demand for hygienic sanitation as it could have been if these elements had been introduced already in 2006.

#### b. Some poor households had difficulty participating due to inability to contribute

In a number of cases, poor HHs were unable to make the 10-30% contribution required to receive project support for water or sanitation due to a lack of financial means. In other cases, poor HHs had signed up for support, but were unable to make the contribution when it was required due to other, more urgent spending priorities. To better respond to the financial constraints faced by the poorest HHs, CARE made two main adaptations in the implementation of the IVWSPs: (1) HHs were given the opportunity to register for support several times in a year to ensure that they could sign up for support whenever they had income, and (2) in some cases HHs could make contributions in the form of materials or labour. Stakeholders reported that these adjustments had helped to increase the participation of the poor.

### 8.2 Governance and Management Arrangements

#### c. Initial collaboration difficulties between CARE and provincial partners

The project experienced serious collaboration difficulties in the first two years. According to the MTR, the collaboration difficulties were attributable to: i) a lack of clarity regarding CARE and partner roles and responsibilities in relation to project implementation and management, and ii) the absence of clear and systematic communication with partners about project progress and issues from CARE project management. The issues were addressed by putting in place a new CARE project management team, which included a national Team Leader, and by revising the PIS. Finally, project implementation was handed over to partners – WU and CERWASS in particular – to a greater degree, a move which resulted in a greater sense of ownership<sup>26</sup> of the Project and its approaches and outcomes.

**d. Difficulty recruiting and retaining CARE project staff**

Due to strong competition for human resources among NGOs working in the Mekong Delta region, the Project faced difficulties in hiring and retaining staff. The relative remoteness of Soc Trang and Ca Mau provinces added to the difficulty. As a consequence, staff turnover was high and key project positions went unfilled for extensive periods, including the Social Marketing Coordinator/IEC Officer, Community Development Coordinator, WatSan Technical Coordinator, and Project Coordinator (Soc Trang) positions. CARE project management sought to work around this issue to some extent by contracting short term technical assistance. However, the precarious staffing situation put a serious strain on CARE project management, as the Team Leader for long periods of time faced no alternative but to take on the responsibilities of the missing staff (IEC Officer, Project Coordinator). The high level of CARE project staff turnover also put a strain on the working relationship with partners, who found it to be challenge to work with continually shifting staff, each with their own working style.

**e. CARE and provincial partners had difficulties adjusting to a new modality of working**

As noted in section 7.2, the Project required CARE and its provincial partners to collaborate closely on project management and implementation. This institutional setup brought both parties outside their ‘comfort zone’ and required them to become accustomed to the modus operandi and culture of the other party (NGO vs. government). Each party had difficulty making this adjustment initially.

**f. Variation in partner willingness to collaborate on technical issues**

Provincial partners differed in their interest in and willingness to collaborate with CARE on technical issues. At one end, Ca Mau WU worked closely with CARE to identify a suitable IEC approach, PAOT, and technical assistance to help introduce the approach. At the other end, the Soc Trang WU preferred to rely on its own expertise. The Ca Mau WU worked to a greater extent with CARE and an IEC consultant to adjust the approach and its tools to the local context. The end result appeared to be an approach in Ca Mau, which was seen as more relevant by the target groups and as such has been more effective.

**g. Collaboration difficulties among provincial partners**

IDIs with stakeholders suggested that the collaboration between PCERWASS/CORD and the WU in both provinces had been difficult, in particular in Soc Trang. In Soc Trang, this tenuous relationship between the two main Project partners appears to have led to some degree of PMU dysfunction. As such, the PMU was reported to meet with great irregularity. Interviews with the two partner agencies left the ACR mission with the impression that they carried out Project activities in parallel rather than in coordination.

**8.3 Technical Challenges**

**h. Three-year delay in IEC activities**

The project experienced a three-year delay in developing and rolling out its IEC/BCC activities. The delay was, in part, caused by the Project’s inability to procure as planned expert TA from International Development Enterprises to develop the planned social and product marketing campaign. Time was then also lost when the alternative consultant recruited was unable to deliver against the terms of reference and when the WU rejected an alternative strategic IEC/BCC plan, which had been developed by an experienced consultant recruited by CARE. The Project was finally able to move forward with IEC/BCC,

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<sup>26</sup> The MTR identified a low level of partner ownership as a risk to the project.

when an IEC strategy and plan was developed with the assistance of CARE's technical adviser in October 2008. The WUs in the two provinces then took the lead on implementation with CARE providing capacity building and technical assistance on demand.

As a result of these developments, few IEC/BCC activities were carried out in the first three years of the Project. In effect, this meant that the IVWSP had to do without the first important step (demand creation) in the six-step process. Interviews with beneficiaries suggested that the Project's IEC – when it was eventually rolled out – had played an important role in convincing them of the need for a RWSS facility. It is likely that the Project – as CARE staff and partners noted in interviews – could have performed better from the outset, if IEC activities had been carried out earlier.

#### **i. Functionality issues identified in a number of project-supported RWSS facilities**

During project implementation functionality issues were identified in a number of project-supported RWSS facilities. The functionality issues, which emerged, included:

- 342 cement water jars had broken or were vulnerable to breakage due to construction errors and/or improper operation and maintenance by the beneficiary HH.
- Approximately 50 drilled wells experienced problems; however, most problems were minor and only four wells needed repair.
- The arsenic level in 15 drilled wells was discovered to be beyond the permitted standard.

In the case of problems with cement water jars, the skill level of the mason team contracted to carry out the construction was often at fault. The Project sought to address the issue by hiring masons with a good reputation in the local community. The Project also strengthened its emphasis on O&M training for HHs to prevent further damage or deterioration. This strategy appeared to have solved the functionality issues.

An alternative strategy to address the issue of construction quality would have been for the Project to focus on improving the training of service providers. In the case of latrines, for example, masons received a theoretical training on design and were instructed on facility O&M. For less experienced builders, this training is unlikely to have improved their skill level because – as acknowledged by the masons interviewed by the ACR mission – most of them cannot read technical drawings and have learned their trade entirely by doing. Other NGO projects in Vietnam have successfully ensured the quality of latrine construction by providing local masons with hands-on training. This strategy could have been considered by the Project and would have been in line with its objective to build private RWSS provider capacity.

In all cases where functionality issues have surfaced, the Project ensured that the issue was addressed and, if needed, the facility repaired. In the case of arsenic contamination, four wells were closed while 11 were provided with arsenic filters.<sup>27</sup> VWSCs were trained on how to carry out arsenic quick tests.

#### ***8.4 Financial management and fund flows***

The Project had an imprest account, but transferred the funds for certain activities (including commune funds to finance the IVWSPs, IEC, and WU meetings) to an account managed by the PMU. The PMU – headed by PCERWASS/CORD – would send an activity plan each quarter, whereupon CARE would transfer funds. This financial management arrangement appears to have created a sense of ownership over project activities among the partners and should, as such, be seen as effective.

The Project followed GOV bidding procedures and CARE procedures for financial acquittal. According to some stakeholders this meant that up to ten different forms of documentation were required for expenditure acquittal. As noted by WSMs in one FGD:

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<sup>27</sup> Eight of the 11 arsenic filters, which were provided by Soc Trang CERWASS in 2009, malfunctioned. The Project has replaced these filters with more effective filters developed by Can Tho University.

*“[It was] complicated, but we tried to do it because we wanted to help the HHs. They were poor, we’re very happy to see that they got support. There were many kinds of papers, materials, completion checks, then contracts... many things. In general, we followed the procedures, otherwise we could not make financial finalisation”* (FGD, WSMs, Hoa Dong commune, Soc Trang).

Some stakeholders felt the procedures had slowed down project implementation. Differences in CARE’s and the project partners’ financial management systems appear to have added to the situation. On the other hand, some stakeholders felt that the having to follow specific bidding and financial procedures had worked to build management capacity at lower levels in particular and, as such, was worth the effort.

As noted earlier, the Project encountered difficulties in spending the funds according to the proposal and annual budgets. Beside an early delay, difficulty filling key staff positions for longer periods contributed to making timely disbursement a challenge. The Project kept careful accounts and audits were performed.

An independent audit was conducted of the WATSAN project, covering the period 1 July 2007 to 30 June 2010. An audit of the Project’s system of internal and accounting controls was conducted to assess the compliance as well as implementation of the internal control systems of the Project. The report was finalised and signed off by the auditors and CARE International in Vietnam on 13 June 2011.

The independent auditors made 12 recommendations for follow up action. CARE International in Vietnam ensured that all recommendations were actioned by the WATSAN project team and partners, with updates on the status of the audit recommendations submitted to AusAID on a regular basis.

#### ***8.5 Monitoring and evaluation***

The Project’s monitoring and evaluation system provided sufficient data to enable project management to assess performance and identify problems on an ongoing basis. Monthly monitoring data from target villages on, for example, RWSS registrations and progress against IVWSP enabled management to keep track of progress. Annual HH assessment surveys in 2010 and 2011 allowed the Project to measure behaviour change progress following the roll out of its IEC activities. Through these annual HH assessment surveys, the Project was in a better position to monitor changes in behaviour than the vast majority of RWSS projects. To further enhance monitoring of behaviour change, CARE and partners may wish to make more active use of the PAOT HH improvement checklist as an M&E tool in future activities. The list with its defined set of improvements can be used to establish a baseline in each community and to monitor progress on a quarterly basis against this baseline.

In terms of overall monitoring and supervision, Project performance was regularly supervised by CARE International’s head office in Vietnam as well as CARE Australia. Further monitoring and evaluation activities included an independent Mid-Term Review of Project performance (2007), an independent assessment of Project-provided RWSS options (2011), external audits in 2011 and 2012, and an independent activity completion review (2012).

#### ***8.6 Gender***

The Project featured a number of gender-sensitive practices, which can be considered to have had a positive influence on gender equity and equality. These practices and their outcomes included:

- Promotion of women’s representation in management and decision making: Women’s participation in management and decision making was promoted at all levels. In particular, the Project made an effort to include women in Commune Management Units (CMU) and VWSCs to ensure that their needs and preferences were considered in RWSS decision making regarding. By end 2011, women made up 23% of CMU members and 27% of VWSC members. Women also made up 57% of the WSMs.<sup>28</sup> Overall, women held an important and central role in Project implementation, not least due to CARE’s close collaboration with the WU. Interviews suggested that many women through their

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<sup>28</sup> FGDs with WSMs suggested that many – but not all – of the female WSMs were WU cadres.

involvement with the Project had gained greater confidence in their communication and leadership skills. For some women, their involvement had led to promotions within the local administration.

- Preferential support for HHs with many female members and female headed HHs: Poor HHs with more than three female members and poor female headed HHs were given preference for support by the Project. This practice ensured that the number of women benefiting from improved water and sanitation was maximised.
- Gender training: Project staff and partners at all levels were sensitised to gender via gender training.

Both Project partners and beneficiaries expressed the viewpoint that the improved access to water and sanitation held special benefits for women. Among the benefits mentioned was women with improved access to water were burdened with less work, since less time was spent fetching water. Further, improved access to water has given women better conditions for personal hygiene. As a consequence, female FGD participants reported that reproductive tract infections (RTI) had been reduced in women.<sup>29</sup> Women also reported that, with the Project supported septic tank latrines, felt safer and more comfortable going to the toilet.

Overall, the Project can be seen as having contributed positively to gender equity and equality on several fronts. In terms of promoting equality in the distribution of labour in the home, beneficiary HHs reported that Project IEC had emphasised the need for both men and women to participate in the cleaning of the new latrines. Project IEC appears to have placed less emphasis on the promotion of gender equality in relation to other domestic tasks, despite extensive gender trainings for WU and CMU staff. FGDs participants reported that WSMs had talked about men's and women's roles in the HH. However, few FGD participants displayed greater awareness of gender equality and none were able to provide examples of changes in the distribution of domestic tasks. As such, the Project's impact on gender equality in the distribution of domestic tasks was quite limited. It can be debated whether a longer term and – perhaps – exclusive focus on gender equality may not be needed to bring about a shift in the strongly ingrained perceptions and realities of men's and women's domestic roles and responsibilities seen in Vietnamese society.

### **Main Lessons Learned**

21. IEC and HHs ability to see and feel assured about the quality of Project latrines were critical factors in building HHs demand for hygienic sanitation. The delay in making both factors a reality in the Project resulted in a significant delay in sanitation demand creation.
22. High staff turnover and difficulty in recruiting staff put a strain on project management and made it challenging for partners to work with the Project, as they frequently had to adjust to the different working styles of changing CARE staff.
23. Partner's appreciation for collaboration and capacity building varied. Where partners had been more open to collaborate and receive technical support, better Project results appeared to have been achieved.
24. The Project's training for masons on its latrine models (i.e. an explanation of technical latrine drawings) may have had limited impact on RWSS provider skills, because it did not fit well with their existing knowledge and styles of learning. Most of them cannot read technical drawings and have learned their trade entirely by doing.
25. The Project's main contribution to gender equity was through the opportunities it provided women to participate in community level processes and decision making. The Project's focus on gender equity at the HH level was more limited as was the impact achieved in this sphere.

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<sup>29</sup> Specifically, female FGD participants in Vinh A village, Soc Trang, reported that the health team, which comes to the area every 6 months to check women for RTIs had found fewer infections in the past year.



## 9. LESSONS LEARNED

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*Please refer to Summary of Lessons Learned on p. iv*

## 10. RECOMMENDATIONS FOR FURTHER ENGAGEMENT

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The recommendations in this section have been organised according to the stakeholder for whom they are relevant.

### ***10.1 Recommendations for CARE***

1. As part of the Project's exit strategy, CARE should provide support to its provincial partners to identify ways in which the Project's approaches and achievements can be extended beyond the life of the Project. CARE should carry out the following activities to this purpose:
  - a. Identify and/or design lower cost latrine options, which could be promoted for poor HHs under GOV programs such as RWSS-NTP3. CARE may also wish to work with provincial partners to identify alternative sanitation financing schemes for both poor, near-poor, and average HHs. In the absence of these measures, many HHs may not build a latrine even if they have a demand for one.
  - b. Work with provincial partner to identify which elements of the IVWSP process can be used in GOV programs – RWSS-NTP3 in particular – and make a plan for how to do so.
  - c. Develop a set of guidelines for how HHs can remove and treat septic tank septage as safely as possible. Work with the WU to disseminate this information to HHs.
2. Carefully document some of the Project's key successes to make the lessons available to a broader RWSS audience and to positively influence RWSS project and programming practices in and beyond Vietnam. The most important successes to document include:
  - a. Participatory Action Oriented Training
  - b. Small scale piped water schemes and management by the community WUG
  - c. Integrated Village Water and Sanitation Planning (looking at the effectiveness of each component/step)
  - d. School WASH IEC model
3. Prepare a strategy for how to disseminate the documentation and how to use it in CARE's own advocacy work in the RWSS sector.
4. For future RWSS projects, consider the following:
  - a. Include a dedicated documentation, dissemination, and advocacy project component in Project design to be able to strategically influence central sector stakeholders, policies, and practices. Let this component be the main way in which the project influences policies and practices.
  - b. Continue working with provincial partners on implementation despite the challenges involved, because the results are better in terms of sustainability and longer term impact.
  - c. Replicate the *Options and Ownership Project's* demand responsive RWSS delivery approach (IVWSP) and BCC approach (creating demand for improved WASH, followed by PAOT).
  - d. Ensure that BCC precedes hardware delivery.
  - e. Built demonstration latrines early in each participating community to allow potential beneficiaries to personally experience the quality and benefits of the facility.
  - f. Seek to the extent possible to base subsidy rates on HH's willingness to pay for good quality RWSS facilities so that project benefits can be shared among as many beneficiaries as possible.
  - g. Provide hands-on training in RWSS facility construction for masons and combine it with training on how to promote their business. This approach has worked well to ensure construction quality in other Projects and have helped masons build their businesses post-Project completion.
  - h. Apply the same principle of implementing in a few villages in many communes, which made this Project successful in terms of scaling up.

- i. However, ensure that the demographic scope does not constrain the number of potential beneficiaries a project can reach and, as such, its potential impact.
5. To work effectively with GOV partners on the management and implementation of a project:
    - a. Ensure that sufficient time is set aside for a transparent and effective dialogue between CARE and key project partners in the start up phase. Among other things, sit down with all key management and implementation partners to agree on and write down a clear project implementation strategy with targets, tactics (i.e. main means for how to reach the targets), and stakeholder roles and responsibilities (including allocations of partner staff time).
    - b. Review and revise the project implementation strategy with partners at regular intervals.
    - c. Ensure that partners become familiar with the Project modality and working approach early in the project. It crucial that key partners, including the ISPC, PMU, PIT and communes understand the project design, its main features, and the working approach, if they are to be able to effectively manage and implement the project.
    - d. Seek to promote a strong coordination between partners, in particular to ensure a good coordination between the 'software' and 'hardware' components of an RWSS project.

### ***10.2 Recommendations for the Partners***

1. Make the necessary commitments to sustain and take forward the achievements of the project (specified in section 5.3).
2. Take advantage of external technical assistance, when it is available. The experience from the Project suggests that openness to external inputs usually leads to better results.
3. Integrate the following good practices/approaches/models from the Project into RWSS-NTP and other relevant programming to achieve better results:
  - a. PAOT to promote improved water, sanitation, and hygiene practices.
  - b. Feasible components of the IVWSP process, such as letting HHs select their facility, enabling HHs to supervise construction, and training for HHs on water and sanitation facility O&M.
  - c. Small scale piped water supply schemes for remote communities, where groundwater extraction is feasible.
  - d. Contracting and training local RWSS service providers (masons) to build water and sanitation facilities. This ensures greater accountability as well as future availability of RWSS construction and repair services in the local area.
  - e. School WASH IEC
4. Consider alternative financing mechanisms for water supply and sanitation, such as credit and savings groups, which will enable HHs to build higher cost, better quality RWSS facilities. Project experience suggests that HH demand is higher when RWSS facilities are of good quality.
5. Allocate RWSS-NTP3 budget annually to the Women's Union to continue the IEC activities introduced by the Project, as the WU has shown that it has the organisation and capacity to effectively undertake this task.
6. Commit to monitor water quality every six months at the six small scale piped water supply facilities provided by the Project and to provide technical and financial support for O&M of the schemes in order to ensure their long-term sustainability and, as such, protect the investment.

### ***10.3 Recommendations for the Donor***

1. Though higher risk, keep funding RWSS projects where NGOs and provincial partners work together to manage and implement. The reward is likely to be results which are more scalable and sustainable.

### ***10.4 Recommendations for National RWSS Policies and Programs***

1. Disseminate the PAOT experience nationally and make available technical assistance for provincial RWSS-NTP3 programs that wish to replicate the approach (in combination with IEC for demand creation).

2. Disseminate the small scale piped water scheme experience.
3. Consider piloting some elements of the IVWSP approach, including HH supervision of construction and training of HHs on O&M.

