ATTACHMENT 1

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JOINT DONORS' SUPPORT TO NATIONAL TARGET PROGRAM FOR RURAL WATER SUPPLY AND SANITATION PHASE III

INDEPENDENT COMPLETION REPORT

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EXECUTIVE SUMMARY

Background

The National Target Program for Rural Water Supply and Sanitation (NTP) sought to improve health and living conditions of the rural poor (including ethnic minorities, women and children) through improved water supply and sanitation, hygiene promotion and protection of the environment. Australia, Denmark and the United Kingdom together provided about USD 100 million in budget support for the third phase (2011-2015) of the NTP or about 10% of the planned budget. Australia's contribution of around AUD 74 million was split between direct budget support (around 80%) to the National Program Phase 3 (NTP3) and technical assistance to implementing agencies at all levels (about 20%).

NTP3 was the Government of Vietnam's own Program and was delivered through the country's own financing and implementation structures consistent with the principles established by the Hanoi Core Statement on Aid Effectiveness.

The Program attracted a large number of stakeholders from all levels of government; NGOs and civil society. Australia effectively maintained a lead donor role through hands on management and a range of strategic technical assistance (TA) provided to overcome sector deficiencies; encourage scalability of innovative approaches and ensure sector sustainability. Australia's policy dialogue efforts were supported through DFAT's complementary programs such as the Australian Development Research Awards Scheme (ADRAS) on the role of private sector in WASH, and results-based financing from the Civil Society Water, Sanitation and Hygiene Fund (WASH CSO Fund).

Outline of Evaluation Findings

Australian support to the sector was aligned very well with Government of Vietnam (GoV) priorities, and contributed to sustainable growth and poverty reduction. The budget support mechanism was effective and enabled the Program to achieve intended outcomes through consolidation of a range of available financial and technical resources. It was a suitable tool to promote greater private sector participation and help the GoV modernize its sector institutions at central, provincial and local levels.

The investment has met the main objectives: 86% (against a target of 85%) of the rural population have access to hygienic water and 65% of rural households have hygienic latrines. Provision of water and sanitation facilities in schools and health clinics are lagging behind the 100% target (with a coverage of 93 and 95% respectively). However, it should be noted that these targets were extremely ambitious and by international comparison, Vietnam's achievements are outstanding. For example, according to the Joint Monitoring Programme (JMP 2015), open defecation in Vietnam fell from about 39% in 1990 to around 1% in 2015. Extensive surveys have demonstrated significant health and welfare gains due to the program.

Rising expectations and incomes together with improved institutional capacities appear to have created a momentum that has made progress on hygiene and sanitation self-sustaining. However, until recently, the focus was on new construction and many of the water supply schemes built under previous phases of the NTP were not sustainable and deteriorated and some even stopped functioning after a few years. Strategic use of DFAT TA funds helped to highlight this problem and develop solutions. Thus, GoV now prioritizes operation and maintenance and rehabilitation of existing schemes. Also, there is a shift from community and cooperatively managed schemes towards projects owned and operated by private sector or the provincial water centers (pCERWASSes) that have better professional qualifications. Thus, the prospects for sustainable operation of piped water schemes are now much better.

With TA from DFAT, a comprehensive monitoring and evaluation (M&E) system has been established. This system helped identify about two dozen provinces that are lagging behind. This enabled GoV and donor to focus their efforts on the weak provinces. (These are generally poor, located in the Northern Mountains and Central Highlands with high percentages of ethnic minorities.)

The M&E system also includes a database on the operating performance of 16,000 water supply schemes built under the NTP. This database—complemented by targeted TA studies—highlighted the sustainability problems and set the stage for the policy shift mentioned above.

The NTP program helped GoV to address a range of sector deficiencies such as (i) outstanding inequalities: poor and remote areas are lagging behind and poverty targeting is increasingly difficult; (ii) sustainability of investment; (iii) water quality; (v) weak sector governance structure; and (vi) regulatory framework and lack of incentives for private sector participation. The budget support mechanism helped Australia to achieve significant leverage in the sector with a total contribution of less than 5% of overall program budget. The Australian Embassy staff's strong engagement on the program and its management were a critical success factor. However, we believe that the creative and flexible use of DFAT's whole range of instruments can explain the overall success of the operation: TA was used strategically to pursue policy objectives; the use of local consultants enhanced government ownership of study recommendations; the WASH CSO fund was used to test and evaluate new approaches; research and other studies were used to provide the evidence base for the policy dialogue.

While gender equality was not an objective of NTP 3, Australia has been active in promoting gender equality since 2013. As a result of Australia's support, women are directly involved in the planning and management of water supply and sanitation programs, and hygiene promotion interventions are specifically designed to reach women and girls.

The evaluation outlined the achievements from various perspective:

Criterion	SCORE
<i>Relevance</i> (Is this the right thing to do?)	6
Effectiveness (Have we achieved the expected results?)	5
<i>Efficiency</i> (Efficient use of time and resources)	5
M&E System (Did the M&E system generate credible information?)	5
<i>Sustainability</i> (Will the benefits endure?)	5
Gender Equality (Has made a difference to gender equality and empowered women	4
and girls?)	

Evaluation Criteria Ratings (on the scale of 1 to 6)

In spite of the success of NTP, the sector faces many challenges. Rural access to improved water supply is more than 80%. However, the quality of the water available remains an issue. Only treated piped water can be considered as safe for drinking leading to important health gains for the

population. However, rural access to treated piped water remains low at only 35%. There is also significant disparity of access across provinces ranging from less than 10% to 65%. The rural poor have low access to piped water due to limited coverage in remote and mountainous areas and affordability of connections and tariffs. Women headed households are disproportionately affected due to relatively low incomes. With budgetary constraints resulting from slower growth, it will be challenging for Vietnam to meet the Sustainable Development Goal (SDG) that calls for sustainable access to safe water supply and sanitation for all by 2030.

The government and the development community recognize the importance of establishing a greater role for the private sector. The private sector is able to innovate and drive greater efficiency in the way services are delivered. In spite of this, the partnership between the government and private enterprises that will lead to greater efficiency still remains poorly defined. The incentive policies to encourage private enterprise participation are inconsistently and incompletely applied. Interviews with selected enterprises indicate that incongruous policies regarding ownership of assets, land use, and the right to exploit water sources are hampering their efforts to mobilize funding from financial institutions. Low tariffs set by the provincial authorities prevent enterprises from recovering the capital costs. GoV's response to the trade-off between low tariff and full cost recovery is to subsidize private enterprises on capital costs according to a formula (60% to 90% depending on regions). However, this compensation was not or partly paid to private enterprises. Under the current regulatory and incentive framework, private enterprise investments are unsustainable and cannot grow in spite of their potential and willingness to invest in the sector.

In addition to the unclear policy framework, private enterprises have limited access to finance. They cannot mortgage the water infrastructure, as it is mostly underground and difficult for bankers to accept as tradable collaterals. The average loan size (about USD 300,000 to 500,000) is too big for micro finance institutions, and too small for many development and commercial banks. Weak governance and capacity also affect their performance. This issue should be addressed at the national level similar to the adoption of financing policy through Vietnam Bank of Social Policy (VBSP) for households' access to water and sanitation.

GoV has recognized the limitations and have taken steps to improve the regulatory framework such as the recent decree on public-private partnership. Ministry of Agriculture and Rural Development (MARD) has also been active in seeking pragmatic approaches to allow the government to test out various theories of change to generate evidence for scaling up.

Outline of Recommendations

The main lesson of Australia's support for rural WASH in Vietnam is that institutional development and sustainable policy reforms require long term and substantive donor support as well as dedicated staff who can gain the confidence of their government counterparts at all levels. Furthermore, all possible instruments should be used: financing, technical assistance, research as well as support to NGOs that can experiment and pilot new approaches. At the same time, learning should be built into the system to enable gradual course changes as circumstances require. All these elements have characterized Australia's support for the National Target Program for Rural Water Supply and Sanitation. The approach taken by DFAT for NTP3 can serve as a model for budget support operations in most sectors.

The recommendations of this independent review are summarized below:

Policies and regulations

- As RWSS is integrated under the New Rural Development NTP, funds should be earmarked for the various RWSS sub-programs and priority given to poor and lagging provinces.
- Operational functionality has greatly improved under NTP3 (increasing from 60% in 2013 to 75% in 2015), but many existing systems either operate at sub-optimal level or have been shut down. Future water investments should favor rehabilitation where possible, particularly in expanding the distribution and reaching the last mile.
- Climate change, industrial development and increasing use of chemicals affect the water resource security and safety. Water safety plan should be a part of the new rural development planning and water quality testing should be expanded. The amount of investments is not significant but will improve timely interventions to improve water quality.
- Ideally, the water supply entities should be financially viable with tariffs that are sufficient to operate the systems sustainably and fully recover costs. In practice, however, there will be a need for transparent targeted subsidies from the state budget. Such subsidies should be based on the output-based approach (OBA) with a fixed payment per connected household.
- The present guidelines on water tariffs are cumbersome and rarely followed by the provinces. Thus, MPI and MOF in collaboration with MARD need to review and revise the tariff framework, taking into account a revised subsidy system.

Governance

- The NCERWASS and the pCERWASSes should be preserved and play key roles in assisting provincial authorities in overseeing the operation and maintenance of existing and new piped water schemes implemented by various stakeholders, and provide capacity building to various to professionalize the management of the rural piped water schemes.
- DFAT should provide technical assistance support and guidance to help reorganize pCERWASS into self-sustained corporate centers, and pilot the reform in selected provinces.
- The customers should have a voice in both the planning and the operation of the schemes and feedback needs to be collected in a systematic manner through customer satisfaction surveys. The current citizen score card that is piloted by the Youth Union in nine provinces should be expanded nation-wide.

Operational Improvement

The functionality of existing investments needs to improve. Future investments should favor rehabilitation where possible. In this respect, the focus should be on household connections and services. The output-based approach has been proven effective in reaching households, particularly targeting the lowest 40% of rural populations.

- Financially autonomous, professionally managed entities with clear ownership of the systems are best positioned to provide high quality, sustainable service. DFAT should partner with GoV in finding solutions to mobilize increased private sector participation in the WASH sector through the Australia-Vietnam Enterprise Development Partnership program.
- Significant issues will remain with the low functionality of many small community and cooperative managed piped water schemes especially in remote mountainous regions. To deal with these, provinces need to develop financial and technical support mechanisms centered on the pCERWASS.
- ➢ Low cost and sustainable household water treatment technologies should be researched, perhaps with the assistance from the Australia Water Association (AWA).
- New low cost sanitation technologies and IEC approaches should be developed in collaboration with NGO's to serve people in the poorest (mountainous) provinces, including use of OBA approaches to incentivize the poorest households.

Gender equality

Gender equality needs to be a performance criteria for new WASH programs. In this respect, it is not sufficient to simply count women as beneficiaries. The programs should have a proactive approach to link service delivery to women's economic empowerment and to household decision making process.

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LIST OF ACRONYMS

ADRAS	Australian Development Research Awards Scheme
BCC	Behavioral Change Communication (for improved sanitation and hygiene)
СРС	Commune People's Committee
DARD	Provincial Department of Agriculture and Rural Development
Danida	Danish International Development Assistance
DFID	Department for International Development (UK)
EMW	East Meets West Foundation
GoV	Government of Vietnam
IEC	Information, Education and Communication
ISF	Institute for Sustainable Futures, University of Technology, Sydney
IWEM	Institute for Water Economics and Management
JMP	WHO/UNICEF Joint Monitoring Programme
M&E	Monitoring and Evaluation
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goals
MOET	Ministry of Education and Training
MoF	Ministry of Finance
МоН	Ministry of Health
MONRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Implementation
NCERWASS	National Center for Rural Water Supply and Sanitation
NTP	National Target Program
0&M	Operation and Maintenance
OBA	Output-Based Aid
PAP	Process Action Plan
pCERWASS	Provincial Center for Rural Water Supply and Sanitation
PMC	Preventive Medical Center (Province Level)
PPC	Provincial People's Committee
RWSS	Rural Water Supply and Sanitation
SO	Standing Office
ТА	Technical Assistance
TPBS	Target Program Budget Support
UK	United Kingdom
UNICEF	United Nations Children's Fund
VBSP	Vietnam Bank For Social Policy
VIHEMA	Vietnam Health Environment Management Agency
VND	Vietnamese Dong
WASH	Water, Sanitation and Hygiene
VWU	Vietnam Women's Union
WHO	World Health Organization
	USD 1 = DKK 5.5 = AUD 1.04 = GBP 0.63 = VND 20,000 = EUR 1.35

1. INTRODUCTION

1.1 Activity Background

Vietnam's record of economic growth and poverty alleviation over the last three decades has been commendable. Through the three phases of the National Target Program for Rural Water Supply and Sanitation (NTP), Vietnam has also achieved the Millennium Development Goal's Targets for water supply and sanitation. Building on the successes of the previous two phases (2001-2006; 2006-2011), the third phase (NTP3, 2011-2015) sought to improve health and living conditions of the rural poor (including ethnic minorities, women and girls) through improved water supply and sanitation, hygiene promotion and protection of the environment.

NTP3 was the Government of Vietnam's own Program and was delivered through the country's own financing and implementation structures consistent with the principles established by the Hanoi Core Statement on Aid Effectiveness. About 80% of the Australian contribution of AUD 74 million was provided as budget support to the NTP3 and about 20% was used for technical assistance to implementing agencies at all levels. Denmark and the UK joined in the budget support for NTP3. Together the Target Program Budget Support (TPBS) donors were providing about USD 100 million or about 10% of the planned NTP3 budget.

The Prime Minister approved NTP3 on March 31, 2012. It comprised three main components and several sub-components:

- 1. Rural domestic water supply and rural environment (VND 19,725 billion)
 - i. Rural domestic water supply schemes, with priority given to areas with disadvantageous water-sources e.g. mountain, salt-water intrusion, arsenic/dioxin etc. contamination.
 - ii. RWSS facilities for preschools and schools.
 - iii. Hygienic livestock pens.
- 2. Rural sanitation (VND 5,961 billion)
 - i. Hygienic household latrines.
 - ii. RWSS facilities for clinics.
- 3. Capacity building, communication and supervision, monitoring and evaluation of the Program (VND 1,914 billion)

The Program attracted a large number of stakeholders from all levels of government; NGOs and civil society. Australia effectively maintained a lead donor role through hands on management and a range of strategic technical assistance provided to overcome sector deficiencies; encourage scalability of innovative approaches and ensure sector sustainability. Australia's policy dialogue efforts were supported through complementary programs such as ADRAS research and grants, and results-based financing from the Civil Society Water, Sanitation and Hygiene Fund.

1.2 Evaluation Objectives and Questions

As outlined in the Terms-of-Reference, the objectives of the Independent Completion Evaluation are to:

1. Assess the *relevance* (is this the right thing to do?); *effectiveness* (have we achieved the results that we expected over the lifetime of the investment); *efficiency* (did the investment

make efficient use of Australia's and other partners' time and resources to achieve investment outcomes?); *monitoring and evaluation* (was an M&E system used to generate credible information which was used to measure progress towards meeting outcomes and for the program improvement, learning and accountability); *sustainability* (will the benefits endure after Australia's and other partners' contributions have ceased?); and *gender equality* (has the investment made a difference to gender equality and empowering women and girls)

2. Identify key lessons learnt from the RWSS NTP3 that will inform Australia's future engagement in the rural water supply and sanitation in Vietnam.

1.3 Evaluation Team and Evaluation Methods

This evaluation was undertaken by Ms. Minh Chau Nguyen, Principal, Results for Development. The assessment is based on a review of relevant donor and Government of Vietnam (GoV) documents as well as various international and Vietnamese studies. (For details, see section on Reference Documents.)

The evaluation is undertaken in accordance with the DFAT monitoring and evaluation standards and applies the criteria outlined in the Terms of Reference. The main conclusions are outlined below.

During the evaluation process, the author had intensive discussion with DFAT staff and relevant stakeholders involved in the implementation of the NTP3.

1.4 Limitations to the Evaluation

This is a pure desk review. No survey was undertaken to assess the impact of the project. Thus, it relies primarily on the NTP3 monitoring system to assess program outputs and the achievement of its development objectives. Nation-wide surveys such as the Vietnam Household Living Standard Surveys and the Viet Nam Multiple Indicator Cluster Surveys as well as numerous published and unpublished studies were used to verify the M&E data and provide additional background information.

While the evaluation did not involve any field visits, it has benefited from the reviewer's long association with the water, sanitation and hygiene (WASH) sector in Vietnam.

2. PROGRAM EVALUATION

2.1 Relevance (Is this the right thing to do?)

About 6 million children under 5 years of age die each year, about one-fifth of them from diarrhea caused by poor water, sanitation and hygiene (UN IGME 2015 and Boschi-Pinto et al. 2008). While diarrhea affects children the most, everybody is affected. A comprehensive review of scientific studies on the topic (Wolf et al. 2014) concluded that:

"...inadequate water and sanitation are associated with considerable risks of diarrhoeal disease and that there are notable differences in illness reduction according to the type of improved water and sanitation implemented."

However, poor sanitation has impacts going beyond morbidity and mortality due to diarrhea. International research has shown that poor sanitation also leads to stunting in children with long-term effects on cognitive abilities and reduced lifetime earnings (Hammer and Spears, 2013; Spears, 2013; Spears and Lamba, 2011). A recent study by the Water and Sanitation Program (WSP 2014a) showed that "children grow taller, and smarter, in rural, mountainous villages of Vietnam where community members use improved sanitation."

At the start of RWSS Phase 3 in 2011, 25% of rural population still did not have access to hygienic water and 40% did not have access to hygienic latrines. 15% of schools and 12% of health clinics in rural areas were not equipped with water and sanitation facilities. To address this concern, the GOV made a strong commitment to achieve MDG7 on Environmental Sustainability by 2015 through its approval of the NTP3 and ensuring that access to water and sanitation were two essential indicators in the socioeconomic development plan.

Australian support to this sector aligned well with GoV priorities, pursuing national interest by contributing to sustainable growth and poverty reduction. The budget support mechanism was effective and enabled the Program to achieve intended outcomes through consolidation of a range of financial and technical resources. Australia gained invaluable insights into the government system that could not be accessed by other funding modalities. For example, a relatively small subsidy to cover the operational cost of the Vietnam Bank for Social Policies (VBSP) provided insight into state managed banking operations which is not accessible to other donors. VBSP has been instrumental in collaborating with Australia-supported output-based aid programs in targeting the rural poor in water and sanitation.

The direct technical assistance arrangement provided a flexible mechanism for timely responses to emerging sector needs and changes to economic, social and political context. For example, Australian technical assistance to the provincial level in the second half of the investment with focus on encouraging private operators paved the way for the pursuit of critical public-private-partnership (PPP) agenda. In 2015, Australia also supported research institutes from Vietnam and Australia to study private sector development in both water and sanitation. The evidence sets a solid foundation for domestic private sector development in the new Aid Investment Plan (2015-2020).

Water supply and sanitation is an area where Australia has a comparative advantage, technical knownow and good reputation. Australia provided value-add to the sector through promotion of new technologies, sector policy dialogues, regulatory reforms, innovative financing and strong linkage with the Australia Water Association (AWA). This approach aligned well with the New Aid Paradigm. Thus, this evaluation concludes that the program is highly relevant. On a scale of 1-6, *we rate the program's relevance as 6*. The sub-criteria scores are provided below.

Evaluation Criteria: Relevance	6
The investment aligned with the purpose of the aid program, to promote Australia's	6
national interest by contributing to sustainable growth and poverty reduction.	
The modality chosen was the most appropriate for this investment to achieve its	6
intended outcomes.	
The investment contributed to the Government's Economic Diplomacy Agenda.	5
The investment was important for the partner government/s and aligned with their	6
development priorities.	
There is a clear link between what the investment delivered and objectives outlined in	5
an Aid Investment Plan or similar document.	
The investment was in an area of Australia's comparative advantage. Australia's	5
value-add was clear.	
The investment adapted to changes to the economic, social or political context during	6
its lifetime.	

2.2 Effectiveness (Have we achieved the expected results?)

The targets for Australia's support of NTP3 are set out in the Design Summary and Implementation Document (AusAID 2011). However, the monitoring and evaluation (M&E) data on which these targets were based were found to be biased (see below under Monitoring and Evaluation). Thus, the targets were revised in the Government's 2012 decision approving NTP3 (Prime Minister's Decision No.366/QĐ-TTg). The various targets and achievements are summarized in Table 1.

	Design and Ir Docu	mplementation ument	Decision 366/QĐ-TTg	Recent I	Estimates	
Description of indicators	Baseline at end of 2010	Targets (2015) in percentage	NTP3 Targets for 2015	Baseline at end of 2010	Progress up to 2014	Comment
Number of rural people having hygienic water	80	90	85	76.6	84.5	Will be met
Number of rural people having access to clean water	40	55	45	37.0	42.0	Might fall somewhat short
Number of rural households having hygienic latrines	55	70	65	50.5	63.0	Likely to be met
Number of rural households having hygienic livestock pens	40	55	45	n.a.	53.2	Achieved
Number of schools and kindergartens having water and sanitation	80	100	100	n.a.	91.4	Likely to fall short
Number of communal clinics having water and sanitation	80	100	100	n.a.	92.8	Likely to fall short
Number of rural communes having hygienic garbage collection	32	40		n.a.	n.a.	No recent information
Number of rural people having access to information on household sanitation	n.a	80		n.a.	n.a.	No systematic large scale surveys have been done, but partial evidence suggest that the great majority of rural households have basic knowledge => Likely achieved
Number of schools and kindergartens having access to information on environmental sanitation and personal hygiene	n.a	100		n.a.	n.a.	No recent information

Table 1: NTP 3 Targets and Achievements

Most of the available data are for 2014 (2015 data will be available later in 2016.) However, we conclude that most of the main targets were already achieved in 2014 or are likely to have been achieved in 2015. (These are highlighted in green in the table.) When the targets were not attained (yellow highlight), the shortfalls were relatively minor.

We can also look at Vietnam's WASH achievement in an international perspective. Table 2 provides some key indicators for Asian countries at the same or higher income levels than Vietnam.

Table 2: WASH Performance in Selected Asian Countries

Indicator	India	Indonesia	Philippines	Vietnam
GNI per capita (current PPP terms) 2014	\$5 <i>,</i> 630	\$10,190	\$8,450	\$5,350
Mortality rate, under-5 (per 1,000) 2015	47.7	27.2	28.0	21.7
Un-improved water in rural areas 2015	7%	21%	10%	3%
Open defecation in rural areas 2015	61%	29%	10%	1%

WASH data from the Joint Monitoring Programme; Health and economic data from World Bank

The latest report from the UNICEF/WHO Joint Monitoring Programme (JMP 2015) provides data on the percentage of rural population with a handwashing facility with soap and water. Of 56 surveyed countries only two countries (both European) have a higher coverage than Vietnam's 82%.

Thus, we conclude that Vietnam's overall accomplishments in the WASH sector—and during the NTP3 program—are impressive. While most of the credit must go to GoV and the provinces, the donors—led by Australia in rural WASH—have not only provided funding but also helped strengthen implementation and made the attainment of the key targets possible.

The budgetary support model was effective in engaging the government officials in sector reforms as the program is owned by the GoV and is delivered through the country's own financing and implementation structures. We believe that this model works better for the long-term engagement in the sector than the managing contractor model which tends to be a short term solution for program management.

The RWSS NTP3 program attracted a large number of stakeholders from all levels of government, civil society and academic institutes. Australia provided a range of strategic technical assistance to help overcome sector deficiencies such as the inequality of access to clean water, encourage scalability of innovative approaches such as output-based aid, and ensure sector sustainability such as the functionality and asset management studies. Apart from MARD and MOH which are the main implementation partners, DFAT also provided technical assistance to the Ministry of Education and Training (MOET) to ensure that water and sanitation facilities are accessible by people living with disabilities. DFAT encouraged adoption of its "Accessibility Design Guide" and MOET's Guidelines are now in place. In addition, DTAF also supported household water treatment for remote areas where the indigenous/ethnic minority groups reside.

The pro-poor measures resulted in 68.2% of the rural poor have access to hygienic water, and 65% of rural households have hygienic latrines. In fact, DFAT provided technical assistance to MOH and VWU to target the community hygiene output-based aid program that resulted in 160,000 of poor households having access to hygienic latrines during the last 3 years of NTP3.

Available evidence suggests that these achievements have contributed to improved health. A survey of 4,900 households in 6 provinces representing the different regions of the country sought to assess the impact of the National Target Program (VIHEMA 2014). The overall rate of diarrheal disease in these provinces had fallen by more than 60% between 2006 and 2013. While many factors obviously contributed to this decline, improved WASH clearly was a major contributing factor since the study found that:

"The people who live in the households with latrines not meeting the standards on construction, usage and maintenance have a risk of diarrhea from 1.71 to 3.3 times higher than those living in the households with latrines meeting the standards on construction, usage and maintenance. The people who live in the households with unhygienic main water sources have a risk of diarrhea from 1.01 to 1.49 times higher than those living in the households with hygienic main water sources. The people who live in the households with e households without soap for hand washing have risk of diarrhea 1.06 to 1.52 times higher than those living in the households with soap for hand washing."

However, there are two targets that will not be achieved: water and sanitation in schools and health clinics. Indeed, the situation in these two areas appears to be more serious than the aggregate coverage data imply.

A new survey of more than 300 schools in four provinces (Phu Tho, Hoa Binh, Thanh Hoa and Nghe An) undertaken by the Center for Environment and Health Studies (CEHS) and Water Supply and Sanitation Reference Center (WSRC) found that 97% of the schools had sanitation facilities (CEHS & WSRC 2016). However, the latrines meet government standards on construction, usage, and maintenance at only 60% of the schools. Even more troublesome was the fact that one out of six schools lacked handwashing facilities and only 30% of the schools had soap at the handwashing place. Visits to a number of rural health clinics indicate that the situation there is not much better (although soap is more common). Australia's Accessibility Design Guide was referenced to build disability-friendly water and sanitation facilities in schools, however it could be used more widely in health clinics.

The NTP3 also achieved some important but less tangible results through the policy dialogue led by Australia. These included: (i) promotion of sector socialization and PPP; (ii) increased GoV budget allocation for IEC in sanitation (from 5% of the total budget in 2010 to 12% in 2012-15, with half of the recurrent budget allocated to the health system for sanitation promotion; (iii) increased attention on operation and maintenance of water schemes in poor provinces; (iv) strengthened state asset management mechanisms via establishment of the national database of water infrastructure; (v) promotion of low cost technologies and scaling up of household water treatment facilities; (vi) improved water quality management through establishment of water testing laboratories and testing guidelines and staff training; (v) better resource coordination through Australia's work with NGOs, the World Bank and civil society and (vi) better policy decisions were drawn from DFAT's sector specific research and partnership with local and international research institutions; (vii) prioritization of poverty targeting and ethnic minority areas became important indicators for budget allocation; and (viii) establishment of end user feedback mechanisms.

Consequently, we conclude that NTP3 and Australia's support of the program has been effective in reaching its basic objectives. *We rate the effectiveness of the Australian contribution to the program as 5*. The sub-criteria scores are provided below.

Evaluation Criteria: Effectiveness	5
The investment had realistic and measurable outcomes, supported by a robust logic	5
and theory of change	
The investment achieved its outcomes.	6
The investment delivered key outputs and activities as expected.	5
Policy dialogue was used effectively to influence partners and support the	6
investment's outcomes	
Intended beneficiaries are satisfied with the investment's results	5
The investment actively involved disabled peoples' organizations in planning,	3
implementation and monitoring and evaluation.	
The investment identified and addressed barriers to inclusion and opportunities for	3
participation for people with disability	
The investment actively involved Indigenous peoples and /or Indigenous peoples	4
organizations in planning, implementation and monitoring and evaluation.	
The investment identified and addressed barriers to inclusion and opportunities for	4

2.3 Efficiency (Efficient use of time and resources)

Seen in an international perspective, the rural WASH program in Vietnam is cost effective. Program costs for piped village water supply are relatively low and public expenditures on latrine promotion and construction generates more than four times the same amount in private investments. The unit cost that was planned in the MARD NTP 3 document (2010) for a newly constructed piped water scheme was VND 2.5 million per capita or VND 10.4 million per household (average household size 4.15). According to a study on unit cost conducted by the Institute of Water Economics and Management (IWEM) in 2014, the unit cost varies widely from one province to another depending on the source of water. the topography, and the size of the scheme (ranging from VND 6.1 million to VND 28 million per household). The average cost per household that is included in the various schemes studied across six selected provinces ¹ is about VND 7.7 million which is lower than the MARD planned cost. However, when measuring the cost per household connected, the cost is higher than the estimated cost by 20 to 66 percent. The report also noted that the project supported by the World Bank had a higher cost than the average cost per household in NTP3. While the unit cost data could be useful for a high level benchmarking and planning purpose, these numbers should not be used as an indication of efficiency as there are other factors that could give better value for money such as the reliability of the service delivery and the customers satisfaction rating.

The NTP3 budget support donors (DFAT, DFID, and Danida) have contributed about 10% of the program and have had a significant influence of program activities as mentioned above under effectiveness section. The program attracted a large number of stakeholders from all levels of government. Close inter-sectoral coordination (agriculture, education, health, planning, banking and finance) and associated complementary programs of action are a direct outcome of the policy dialogues. These agencies share common goals and language through the budgetary support mechanism, and hence the coordination was less challenging. The financial disbursement rate for both state budget and the donors' contribution reached 99.98%. The balance of 20 percent for technical assistance and 80 percent for budget support was appropriate given the measureable achievements and the less tangible results such as the issuance of Decree 54 which sets a solid foundation for future public-private partnership. DFAT support to Decree 54 has resulted in the provincial allocation of resources which favor rehabilitation and upgrading of existing investments, contributing more towards cost effectiveness objective.

The staffing input at the embassy was around 3 full-time equivalent (FTE) staff. DFAT's staff was experienced both in the sector and working in partner government systems. Using a conventional yardstick of lending volume per FTE, the staff input must be regarded as high. However, this was not a traditional development program. DFAT was the lead donor and provided most of the intellectual leadership and financing of technical assistance. As such, it was heavily involved in the policy dialogue. DFAT co-chaired the RWSS partnership group with the MARD leaders. Indeed, it was clear MARD looked primarily to DFAT for policy guidance and not to the World Bank (that was by far the largest donor for rural WASH). A significant share of the staff time was devoted to managing the large portfolio of technical assistance activities. Managing directly the TA activities directly gave DFAT a lot of insight

¹ Ha Giang, Hoa Binh, Ninh Binh, Ha Tinh, Dak Lak, Kien Giang

understanding and information for effective policy dialogue and advocacy. However, it took a large amount of staff time in administration and meetings, especially in the case of managing TA with provinces. In response, DFAT consolidated the TA support in 2014 to reduce the number of contracts/agreements. The TA management approach helped building capacity at the local level. Given the significant development impact of the program, this has been an efficient use of Australian aid resources.

The economic slowdown following the financial crisis in 2008 resulted in declining revenues and a budget deficit exceeding 6% of GDP in the years following the approval of NTP 3. As a result, budget allocations at the central and provincial levels fell short of the original plan. The budget constraint resulted in a reduction of recurrent budget for the program by 40% in 2014 and 2015 while the budget for capital investment remained the same (it was because of commitment with TPBS donors at the beginning of NTP 3) while all other GoV programs budget was cut by 30-40%. DFAT therefore increased support from AUD 65 million to AUD 74 million in late 2013 to partially help with this shortfall. Increases in budget from donors in 2013 allowed VBSP to increase its lending volume², coupled with the WB to ensure that the activities complemented each other. The surge in VBSP lending was a major reason why NTP3 sanitation target was reached.

Greater emphasis was also placed on public-private partnerships, enabling some provinces to mobilize additional investment resources and to improve the operational performance of the schemes.

In short, DFAT and the other TPBS donors responded quickly and appropriately to the adverse budget developments and managed to keep the program on track and achieve its key targets.

However, we believe that there is one area where rural WASH investments could be made more efficient. According to the project database (see below), about 32% percent of the rural population had "access to" piped water supply in 2014. According to nation-wide surveys such as the Vietnam Household Living Standard Survey and the Multiple Indicator Cluster Survey only half—or less—of the households with potential access to piped water have actually connected (Figure 1). Numerous surveys (e.g. ISF 2015, Nguyen 2014) have convincingly demonstrated that the reason why households (rich as well as poor) have not connected is that the charge for a connection is regarded as too high (rather than high tariffs per cubic meter of water). Most provinces appear to charge VND 1 million or more for a connection. An analysis of survey data collected by the Youth Union/Youth Federation in four provinces showed that the demand for water connections drops off fast when the price exceeds VND 0.7-1.0 million. However, where there is no other option, the poor is willing to pay up to VND 2 million. In either case, there is a need to consult and educate customers on the value of clean water to get a higher connection rate.

² Donors' support to VBSP is on interest subsidy to cover the operational losses between the market rate for funding, and the lending rate to customers. DFAT introduced this mechanism to GoV in 2006 with a small amount of subsidy with significant leverage results.



Figure 1: Access to Piped Water and Connection Rates in Rural Areas

Overall, we believe that NTP3 made efficient use of Australia's and other partners' time and resources and we rate the efficiency of the Australian contribution to the program as 5. The sub-criteria scores are provided below.

Evaluation Criteria: Efficiency	5
Activities and outputs were delivered on time and in a cost-effective manner.	5
Predicted budgets compared well to actual expenditure.	4
The investment's planned funding and timeframe were sufficient to achieve the	6
intended outcomes.	
There was sufficient staff (both DFAT and partners) with the necessary skills to	5
manage the investment.	
The investment modality and implementation arrangements were appropriate and	6
proportional to the outcomes sought.	
Implementation arrangements were well harmonized with other donors.	6
Implementation arrangements were aligned with partner government systems.	6

2.4 Monitoring and Evaluation (Did the M&E system generate credible information?)

A comprehensive M&E system has been implemented since the issuance of the Inter-ministerial Circular No.48/2008/TTLTBTC-BNN in 2008 with significant support from Australia. It presently tracks 8 key indicators and is updated annually. In principle, the M&E system is based on a complete enumeration of households with access to different types of water supply and sanitation facilities. This implies that the

data collection effort starts at the village/hamlet level and that coverage/performance estimates for higher level administrative units are obtained through aggregation. Consequently, the quality of the village/hamlet data collection determines the overall quality—and usefulness—of the M&E system. One weakness of this system is that it requires proper training of around 100,000 village level workers. Another weakness is that officials at all levels have an incentive to show significant progress and that targets have been achieved. Thus, experience has shown that there is an "upward bias" in the figures reported. The process involves aggregations at the commune, district and provincial level, which even under the best of circumstances is a cumbersome process and delays at one level has repercussions at higher levels.

The system has been gradually improved through a simplification of monitoring indicators (MARD's Decision No.2570/QD-BNN-TCTL on 22 October 2012). This was followed by a set of guidelines issued by NCERWASS (2014a & 2014b). At present, the system is good at tracking progress on key programs. Indeed, it appears to be more comprehensive and accurate than similar systems in other middle income countries. Much of the credit for this goes to DFAT that provided funding for technical assistance and continuously pushed for improvements.

The tracking of the eight progress indicators has been complemented by the establishment of a rural water supply infrastructure database covering more than 16,000 rural piped water schemes. This database was established by the Ministry of Finance (MOF) with active participation from Department of Finance (DOF) and PCERWASS at provincial levels. After seeing the data of these schemes classified in four levels of functionality and the capital budget that was spent, there was a shift from budget allocation for constructing new schemes from 75% in NTP2 to less than 10% in the last two years of NTP3 by provincial leaders. This reporting has now become mandatory. This database is accessible for private sector as well if they wish to have information of each asset (each asset now has "birth certificate" and defined ownership).

The M&E data not only provided a basis for tracking the overall progress of NTP3, it also helped identify implementation problems at the provincial level. This enabled GoV and the TPBS donors to focus attention and technical assistance on weaker performing provinces. Indeed, the M&E data appears to have provided the rationale for the World Bank's most recent WASH loan that focuses on the Northern Mountainous Areas and the Central Highlands where most of the poorly performing provinces are located (Scale up Sanitation Program in 21 provinces).

Regular monitoring and supervision with a focus to 20 weaker performing provinces has been undertaken by the three ministries with participation of donors' staff. DFAT funded the expenses for the 2012-13 and GOV self-funded afterwards.

Joint Annual Reviews (JAR) were the formal mechanism for donors and the GoV to assess Program performance and capture lessons learnt that have wider implications for the aid program. In addition to the JAR, joint field visits and technical supervisory missions were conducted regularly and targeted under-performing provinces to assist with weak management capacity, low sanitation access, and lack of focus on operation and maintenance. Responses to the findings and recommendations from each mission were followed up by DFAT and GoV via close monitoring and regular discussions.

To ensure good financial practice, transparency and accountability, expenditure tracking and financial audit were undertaken on an annual basis in close cooperation with State Audit of Vietnam. In 2014, an

independent and comprehensive Value for money audit and Procurement audit were conducted. These were supplemented by studies on unit costs, scheme functionality and quality of construction undertaken by the Vietnam Institute for Water Resources Economics and Management (IWEM).

In 2014, DFAT in collaboration with East Meets West, an international NGO operating in Vietnam, initiated systematic customer satisfaction surveys delivered by the Youth Union in selected provinces to ensure the water and sanitations services provided are of good quality. The exercise not only informed the sector stakeholders on quality of service standards but strengthened Youth Union analytical capacity in conducting community surveys of public goods.

Overall, we believe that the M&E system was well designed and provided not only the basis for measuring progress against targets but also provided the basis for course corrections and focused support of weaker provinces. Thus, we rate the M&E system 5. The sub-criteria scores are provided below.

Evaluation Criteria: M&E System	5
There is sufficient performance information to complete the FAQC with confidence.	5
Implementation progress was tracked against a baseline where appropriate.	5
A documented M&E arrangement has been in place that specified what would be	5
assessed, by whom, when, how and at what cost.	
The M&E system generated information that was used for management decision	5
making, learning and accountability purposes.	
There were sufficient resources allocated for M&E in the investment's budget.	4
M&E arrangements used or strengthened local M&E systems and/or capacity as	5
appropriate, and provided for mutual accountability.	
Reviews and evaluations for this investment were good quality.	5
Reviews and evaluations for this investment have been published in a timely manner.	5
M&E arrangements included the participation of beneficiaries.	4

2.5 Sustainability (Will the benefits endure?)

Ensuring the future sustainability of Vietnam's WASH program has been a major focus of DFAT's and the TPBS donors' interventions in support of NTP3. The focus on sector reforms such as the introduction of the national registration database of water infrastructure following the landmark Decree 54 supported by Australia resulted in registration and ownership identification of 16,000 schemes. This instrument ensures sector sustainability by setting a solid database of future public-private partnership. The database also serves as a critical tool for management decision making by provincial authorities as demonstrated by the upgrade of 900 water schemes.

The leveraged support to VBSP resulted in over 6.2 million households investing in water and sanitation with loans from VBSP. In fact, VBSP lending for WASH was one of the critical reasons for achievement of the targets under NTP3. DFAT also provided technical assistance to MOF to conduct a study of efficiency of this lending mechanism and incorporating the lessons learnt in the design of the new mechanism to lend to private enterprises. The new service would be piloted under the new Australia Vietnam Enterprise Development Partnership Program (AVEDP).

Australia also successfully tested an innovative approach to program delivery through output-based aid (OBA), which will be scaled up in future operations. In the second half of the program, Australia worked with the GoV in creating an enabling environment to incubate private enterprises in RWSS. This work will be continued together with the OBA approach in the new Australia Vietnam Enterprise Development Partnership Program. In recognition of RWSS NTP3 ending in December 2015, GoV integrated water and sanitation indicators into the national New Rural Development Program (2016-2020). While continuation of RWSS activities is affirmed, funding levels will be significantly less than NTP3. The implementing agencies could have been more active in developing an exit strategy, and extend more efforts in capturing lessons learnt. For example, the socialization policy could have been made more operational to allow private sector participation. Innovative financing such as OBA could have been pursued more rigorously to bring in additional resources from private enterprises, and at the same time achieving cost efficiency and improved services.

The main sustainability problem in the WASH sector is found in the weak institutional arrangements (and lack of financing) for operation and maintenance of village *water supply* systems. An analysis of 16,220 piped water supply schemes that are constructed and functioned in 63 provinces showed that only 33.3% of total schemes were sustainable (and financially sustained); 15.4% of them operated at a low efficiency and 10.7% had stopped working. Overall the functionality rate is at 75%. In one province, the percentage of inefficient and not working schemes appeared to reach 71% (MARD, 2015).

This highlights the need for greater attention to rehabilitation of existing schemes, the reform of tariff and financing policies to ensure that adequate funding is available not only for normal operating expenses and routine maintenance but also for major repairs. DFAT support of Decree 54 was effective in establishing the foundation for this policy reform which will have a long lasting impact on functionality.

Several recent studies also highlight the need for institutional reforms. As has been found in many other countries, community-managed schemes are rarely sustainable in Vietnam. Sustainability and service quality problems are also found in schemes managed by Commune People's Committees (CPCs) and cooperatives. The private sector, enterprises and pCERWASSes appear to manage their schemes in a more sustainable manner and providing a higher level of service to the customers. Such institutional reforms are under way in some provinces, but the process needs to be accelerated.

This highlights what might be the greatest threat to the future of the WASH program in Vietnam. Rural water and sanitation is no longer a freestanding target program. It is being integrated into the National Target Program on New Rural Development. As of this writing, the institutional responsibilities for WASH under the program have not been decided (or at least have not been made public). Over the years, NCERWASS and most of the pCERWASSes have developed a thorough understanding of the sector and their technical support is critical for the long term development and sustainable operation of rural water schemes. In many respect, the role of NCERWASS will become even more important in the future when the complex problems in the weaker (and poorer) provinces are addressed.

Related to this issue is the need for a separate budget allocation for water and sanitation to ensure that the rural population gets equitable access to these essential services.

The key sustainability problems are found in the Northern Mountainous areas, the Central Highlands and, to a more limited extent, in the Central Coastal region. These provinces are poor, tend to have a large share of ethnic minorities and weak institutions. Low population densities and difficult topography lead to higher construction costs and O&M challenges. Fortunately, the World Bank's *Results-Based Scaling up Rural Sanitation and Water Supply Program* (USD 200 million, approved in November 2015) focuses on the Northern Mountains and Central Highlands.

There have been significant changes in water resources especially in relation to contamination of underground and surface water. Thus, water quality and water resource security are other key issues that affect sector sustainability given the sector is directly and indirectly affected by natural disasters, climate change, industrial development and increasing use of chemicals in agriculture. Water treatment facilities are often non-existent or poorly operated. There is also a scarcity of water testing facilities. Finally, water safety planning for rural systems is still embryonic.

Another area that requires greater attention is fecal sludge management in rural areas. While this works reasonable well in urban areas, it is destined to become a greater problem in rural areas as the number of installed septic tanks accumulates. The main risk is that the sludge will be disposed of improperly and create a major health hazard.

Because most households are "moving up the sanitation ladder" and investing large sums in the superstructure, the risk of backsliding (which has been found in Sub-Saharan Africa and parts of South Asia) is limited in most parts of Vietnam. The exception is the tribal areas where people move from open defecation to some simple latrines (Jensen, 2013).

WASH programs throughout the developing world have suffered from poor sustainability. However, the extensive donor assistance to the sector in Vietnam, which culminated in the budget support to NTP 3, *has laid the foundation for long-term sustainability. Thus, we rate the sustainability 5*. The sub-criteria scores are provided below.

Evaluation Criteria: Sustainability	5
There is evidence that benefits of the investment will continue after Australia's	F
funding completes.	5
The investment used local systems and processes and strengthened the capacity of	6
local institutions.	0
The investment has a high level of ownership amongst developing country partners	F
and beneficiaries.	5
Local, private sector or other non-ODA sources of funding are used to support the	F
investment's outcomes.	5
The investment is resilient to the impacts of natural disasters and changing climatic	F
conditions.	5
There was a clear exit strategy, and risks to sustainability have been appropriately	4
managed.	4

2.6 Gender Equality (Has made a difference to gender equality and empowered women and girls?)

While gender equality was not an objective of this investment, under NTP3, a greater focus has been placed on addressing inequalities suffered by women and girls related to water and sanitation services.

NTP 3 donors have been instrumental in pushing for gender mainstreaming in planning, budgeting and implementation process since 2012. From 2014, when gender equality became one of the objectives of the Australian Aid Program, DFAT requested the GoV to track and report against specific indicators introduced in 2013. By the end of 2014, the provinces reported 53 percent of the additional rural beneficiaries of the NTP3 program were women compared to the overall rate of 45% of rural population having access to water and sanitation are women and girls. However, it has proven difficult to ensure that GoV treats gender equality as priority under the investment since gender equality was not a main objective.

To ensure that gender remains a priority, DFAT provided technical assistance to the Vietnam Women's Union (VWU) and Ho Chi Minh City Women's Union to enhance women's participation in water and sanitation services. Specifically, assistance to Vietnam Women's Union centered on hygiene behavior change, and focused on building more latrine facilities by women headed households. Support to Chi Minh City Women's Union was to develop Water and Sanitation Guidelines that best fit the local conditions and to deliver a baseline survey to measure associated project impact assessment. The women in 20 provinces have received training on sanitation and hygiene, persuasion skills to convince poor households to build low cost latrines, construction knowledge from working with contractors building latrines, as well as capacity to monitor and to record data for verification of latrines built.

The Independent Reviewer is not convinced that simply counting the number of persons that have access to safe water and improved sanitation provides a good basis for assessing the gender impact. This is especially true in a country like Vietnam where there is little discrimination against women. A more nuanced approach is needed, which reflects local variations on gender roles. For example, there are few signs of gender discrimination in water supply provision. The collection of water varies from area to area depending on local traditions, economic conditions and the source of water³. In general, this task is more evenly divided between the sexes than in most of Sub-Saharan Africa and South Asia There is evidence of shared decision between men and women for clean water and sanitation investment at the household level⁴. The decision making role of the wife appears to be greater where there is a mobilization effort from Vietnam Women's Union and the VWU facilitates the access to credit. Therefore gender mainstreaming needs to be strengthened with economic empowerment to give women a stronger voice in decision making in households and in the community.

Evaluation Criteria: Gender Equality	4
Analysis of gender equality gaps and opportunities substantially informed the investment.	4
Risks to gender equality were identified and appropriately managed.	4
The investment effectively implemented strategies to promote gender equality and	5

³ A survey in Tien Giang by East Meets West found that in 49% of the households the husband did most of the collection of water versus 40% of the households where the wife usually fetched the water. Boys were also more likely to do this task than girls. In most provinces, however, the collection of water is mostly a task for the women and girls. The data indicates that for female-headed poor households, the access to piped water is limited due to insufficient incomes to pay for safe water.

⁴ For example, an unpublished survey of more than 1,000 households undertaken by the Water Supply and Sanitation Reference Center (WSRC) in Tien Giang indicated that the husband decided in 39% of the cases, the wife in 30% and in 30% the decision to build the latrine was joint.

women's empowerment.	
The M&E system collected sex-disaggregated data and included indicators to measure	1
gender equality outcomes.	4
There was sufficient expertise and budget allocation to achieve positive gender	E
equality outputs and outcomes	5
As a result of the investment, partners increasingly treat gender equality as a priority	Λ
through their own policies and processes	4

3. CONCLUSIONS AND RECOMMENDATIONS

3.1. Key Lessons for DFAT

The main lesson of Australia's support for rural WASH in Vietnam is that institutional development and sustainable policy reforms require long term and substantive donor support as well as dedicated staff who can gain the confidence of their government counterparts at all levels. Furthermore, all possible instruments should be used: financing, technical assistance, research as well as support to NGOs that can experiment and pilot new approaches. At the same time, learning should be built into the system to enable gradual course changes as circumstances require. All these elements have characterized Australia's support for the National Target Program for Rural Water Supply and Sanitation.

Budget support has proven to be an effective instrument to support policy and institutional reforms in Vietnam. However, it takes time as introducing new approaches or undertaking reforms is not always easy. Australia was successful in NTP3 by introducing, then testing, piloting in a few provinces, learning from evidence, and scaling up the approach and generating policy reforms nation-wide. In most respects, the NTP3 operation reflected "best practices" and it can be used as a model for future budget support operations in other countries. Some of the most notable lessons are:

- > Trust was established through a long association in the sector;
- Critical mass (in terms of leverage) was created by bringing together several "likeminded" bilateral donors;
- The NTP was the most suitable vehicle to enable inter-ministerial collaboration for WASH sector, supported by national legislations;
- DFAT used technical assistance in a flexible and strategic manner to pursue the reform agenda through studies of key issues/problems as they arose during implementation;
- A heavy reliance on local consultants and public agencies increased the GoV's ownership of the conclusions and recommendations of the studies;
- Use of the CSO funds to finance large scale pilot operations (e.g. testing output-based aid, sanitation marketing and support of private water enterprises) allowed testing of innovative approaches that would not have been feasible if done through the government's machinery;
- ADRAS research grants and the embassy's own TA funds supported research by international and local institutions that provided the evidence base for reform proposals;

3.2. Recommendations

GoV has decided not to implement a 4th phase of the NTP but to incorporate rural water supply and sanitation in the National Target Program on New Rural Development. It is essential that GoV maintains effective systems for planning and guiding RWSS at the national and provincial levels and for continued capacity building.

Many lessons have been learned, especially during the NTP3 period. These point to a change in direction for RWSS. Thus, GoV should reassess its policy and strategy in the sector. It could do this by revising and updating the National Rural Clean Water Supply and Sanitation Strategy Up To Year 2020 and extending the outlook to 2030. The recommendations below can provide a guide for the strategy formulation process.

Policies and regulations

- As RWSS is integrated under the New Rural Development NTP, funds should be earmarked for the various RWSS sub-programs and that priority is given to poor and lagging provinces.
- Operational functionality has greatly improved under NTP 3 (increasing from 60% in 2013 to 75% in 2015), but many existing systems either operate at sub-optimal level or have stopped functioning. Future water investments should favor rehabilitation where possible, particularly in expanding the distribution system and reaching the last mile.
- Climate change, industrial development and increasing use of chemicals affect the water resources security and safety. Water safety plan should be a part of the new rural development planning and water quality testing should be expanded. The amount of investments is not significant but will improve timely interventions to improve water quality
- Ideally, the water supply entities should be financially viable with tariffs that are sufficient to operate the systems sustainably and fully recover costs. In practice, however, there will be a need for transparent targeted subsidies from the state budget. Such subsidies should be based on the output-based approach (OBA) with a fixed payment per connected household
- The present guidelines on water tariffs are cumbersome and rarely followed by the provinces. Thus, MPI and MOF in collaboration with MARD need to review and revise the tariff framework, taking into account a revised subsidy system.

Governance

- The NCERWASS and the pCERWASSes should be preserved and play key roles in assisting provincial authority in overseeing the operation and maintenance of existing and new piped water schemes implemented by various stakeholders, and provide training to professionalize the system management.
- DFAT should provide support to help reorganize pCERWASS into self-sustained corporate centers, and pilot the reform in selected provinces.
- The customers should have a voice in both the planning and the operation of the schemes and feedback needs to be collected in a systematic manner through customer satisfaction surveys. The current citizen score card that is piloted by the Youth Union in a few provinces should be expanded nation-wide.

Operational Improvement

- The functionality of existing investments needs to improve. Future investments should favor rehabilitation where possible. In this respect, the focus should be on water household connections and services. The output-based approach has been proven effective in reaching households, particularly targeting the lowest 40% of rural populations.
- Financially autonomous, professionally managed entities with clear ownership of the systems are best positioned to provide high quality, sustainable service. A recent joint survey by international and local organizations found that private sector was a significant source of investment and can contribute to the limited state budgets available to extend services. The

same survey and other consumer satisfactory surveys also documented the economic efficiency of private service providers relative to other service providers in resources mobilization, connection cost per household, and operational performance. DFAT should partner with GoV in finding solutions to mobilize increased private sector participation in the WASH sector through the Australia-Vietnam Enterprise Development Partnership program.

- Significant issues will remain with the low functionality of many small community and cooperative managed piped water schemes especially in remote mountainous regions. To deal with these, provinces need to develop financial and technical support mechanisms centered on the pCERWASS.
- New low cost sanitation technologies and IEC approaches should be developed in collaboration with NGO's to serve people in the poorest (mountainous) provinces, including use of OBA approaches to incentivize the poorest households.

Gender equality

Gender equality needs to be a performance criteria for new WASH programs. In this respect, it is not sufficient to simply count women as beneficiaries. The programs should link access of WASH services to women's economic empowerment and to household decision making process.

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